



JOURNAL^{OF} DIGITAL SOCIAL RESEARCH

VOL 8 : NO 1 : 2026

**THE RHIZOMATIC VISITING EXPERIENCE: A CASE STUDY OF THE
VIRTUAL PALACE MUSEUM (BEIJING) ON WECHAT**

Yelin Zhao, Jiaxun Li, Fan Wu & Bing Wang

**POLITICISATION AND POLARISATION OF HEALTH DURING COVID-19:
A DIGITAL ETHNOGRAPHY OF ALTERNATIVE HEALTH INFLUENCERS**

Johanna Nurmi, Sanna Malinen & Piia Jallinoja

**ADDICTIVE AND HABITUAL CYCLES OF SOCIAL MEDIA USE:
SELF-REGULATION AND PROSUMPTION IN EVERYDAY PLATFORM
CULTURES**

Lauren Steckles-Young

**'COMMUNISM MADE ME DO IT': DISRUPTIVE RIGHT-WING PUBLICS AS
A POLARISING FORCE IN TIKTOK COMMENTS**

Esko Nieminen, Pekka Isotalus and Kim Strandberg

**TOWARD NON-TEXTUAL REPRESENTATION OF SOCIAL ANTHROPOLOGY
MODELING CULTURES AS KNOWLEDGE GRAPHS**

Manolis Peponakis, Sarantos Kapidakis, Martin Doerr & Eirini Tountasakis

**'IT IS IMPORTANT THAT YOU SEE MY PERSONAL OPINION CLEARLY'
EXPLORING POLITICAL MICRO-INFLUENCERS' AUTHENTICITY LABOR
ON INSTAGRAM**

Esko Nieminen, Pekka Isotalus and Kim Strandberg

JOURNAL^{OF} DIGITAL SOCIAL RESEARCH

VOL 8 : NO 1 : 2026

EDITORIAL BOARD

EDITOR-IN-CHIEF
Simon Lindgren

EDITOR
Mattias Derlén

EDITOR
Markus Naarttijärvi

EDITOR
Moa Eriksson Krutrök

EDITORIAL ASSISTANT
Emma Östin

JOURNAL METADATA

ISSN
2003-1998

DOI
<http://doi.org/10.33621/jdsr>

WEB
www.jdsr.io

ABOUT JDSR

JDSR is a interdisciplinary, online, open-access journal, focusing on the interaction between digital technologies and society. JDSR is published by DIGSUM, the Centre for Digital Social Research at Umeå University, Sweden.

CONTACT US

E-MAIL
editor@jdsr.se

LICENCE & COPYRIGHT

JDSR is published under a Creative Commons BY-SA licence.
Cover photo by Markus Naarttijärvi

INTERNATIONAL EDITORIAL BOARD

Jean Burgess
QUEENSLAND UNIVERSITY OF TECHNOLOGY, AUSTRALIA

Mark Carrigan
UNIVERSITY OF CAMBRIDGE, UK

Nathalie Casemajor
INSTITUT NATIONAL DE LA RECHERCHE SCIENTIFIQUE, CANADA

Nick Couldry
LONDON SCHOOL OF ECONOMICS, UK

José van Dijck
UTRECHT UNIVERSITY, THE NETHERLANDS

Charles Ess
UNIVERSITY OF OSLO, NORWAY

Christian Fuchs
UNIVERSITY OF WESTMINSTER, UNITED KINGDOM

David Garcia
COMPLEXITY SCIENCE HUB VIENNA, AUSTRIA

David Gauntlett
RYERSON UNIVERSITY, TORONTO, CANADA

Tim Jordan
UNIVERSITY COLLEGE LONDON, UK

Anette Markham
AARHUS UNIVERSITY, DENMARK

Safiya Umoja Noble
UNIVERSITY OF SOUTHERN CALIFORNIA, USA

Sarah Pink
MONASH UNIVERSITY, AUSTRALIA

Thomas Poell
UNIVERSITEIT VAN AMSTERDAM, THE NETHERLANDS

Sarah T. Roberts
UNIVERSITY OF CALIFORNIA, LOS ANGELES, USA

Molly Wright Steenson
CARNEGIE MELLON SCHOOL OF DESIGN, PITTSBURGH, USA

Johanna Sumiala
UNIVERSITY OF HELSINKI, FINLAND

The rhizomatic visiting experience

A case study of the virtual Palace Museum (Beijing) on WeChat

Yelin Zhao¹, Jiaxun Li², Fan Wu³ and Bing Wang⁴

¹ Independent Researcher, United Kingdom

² University of Warwick, United Kingdom

³ University of Applied Science Utrecht, Netherlands

⁴ Independent Researcher, United Kingdom

✉ jiaxun.li.1@warwick.ac.uk

Abstract

The integration of digital technologies into museums has redefined public engagement, offering innovative virtual experiences that transcend physical access. Informed by Deleuze and Guattari's rhizome theory, this paper positions virtual museum visiting as recontextualized experience and examines the phenomenon through a case study of the Palace Museum on WeChat. Drawing on collaborative autoethnography with walkthrough elements, we found that these visits construct a new knowledge system that invites self-referential, spontaneous and heterogeneous connections. We therefore argue that the visiting experience drives the virtual museum rhizomorphic thanks to its performance of unpredicted and heterogeneous mapping. By addressing the various mediators involved in virtual museum visiting, this paper calls for a reconceptualization of (dis)connections in the audience's engagement with virtual museums. It offers a novel framework for understanding virtual museum visiting as a lived experience.

Keywords: virtual museum; rhizome; visiting experience; Palace Museum on WeChat

1. Introduction

The integration of digital technologies into the operations of museums worldwide has been a longstanding endeavor aimed at enhancing connections with audiences, fostering public engagement, and generating revenue. A notable trend in recent years is the virtualization of museum functions and experiences by adopting various digitization, virtual reality (VR), and augmented reality (AR) technologies. For instance, the Google Art Project has collaborated with renowned museums globally to provide free digital access to their collections. Utilizing its Street View technology, the platform facilitates virtual walkthroughs of museum interiors, albeit without support for high-resolution images of objects and exhibition boards (Clerkin and Taylor 2021). Notably, on November 26, 2020, the Mauritshuis in the Netherlands launched the world's first fully digitized virtual museum in gigapixel format. In collaboration with MadPixel from Spain, this innovation allows for an intimate examination of nuances that might evade the naked eye in a traditional gallery setting (Art Institutions x Web3 2023). Additionally, the implementation of online

platforms like Roblox has spurred cultural institutions worldwide, including the Metropolitan Museum of Art (The Met), to explore the potential for gamified virtual museum experiences in pixel art style.

Among these developments, the Palace Museum (one of the largest national museum complexes located in the Forbidden City at the heart of Beijing) on WeChat stands out for two reasons. Firstly, it is set up on one of the most popular social media platforms, WeChat. With over 1.3 billion monthly active users worldwide (Thomala 2023), WeChat goes beyond its social and communicative aspects as it gradually integrates a wide range of social functionalities into the platform, including shopping and payment, gaming and entertainment, as well as food delivery and taxi-hailing services, making it deeply embedded in society and capable of addressing individual users' basic needs. The ubiquitous nature of WeChat and its seamless integration into everyday life render it an indispensable tool to which individuals are habitually tethered and upon which they depend (Chen, Mao and Qiu. 2018; Li 2021). Such wide adoption and continuous online presence highlight the potential of WeChat as an ideal platform for cultural institutions like museums to enhance their visibility, engage with their audiences and facilitate online visiting experiences. For instance, the Louvre (France) launched its Mini Program on WeChat in 2021, providing informative guidance for onsite visits and showcasing highlights of its digitalized collection (Global Times 2021).

Compared with its counterparts, the Palace Museum further explores the potential of the Mini Program, essentially 'mini applications' built within and operated on WeChat. It offers a comprehensive virtual visiting experience on WeChat, encompassing exhibitions, audio guides, and tours of the exhibition halls and the architectural complex of the Forbidden City. This distinctive approach is the second reason that makes the Palace Museum's case unique. WeChat creates 'an immersive and unified experience for everyday activities that resembles an operating system' (van der Vlist et al., 2024: 2). Without the need to download additional applications or navigate away from the WeChat platform, audiences are enabled to engage in an immersive museum-visiting experience. Integrating the 'Digitalized Palace Museum' (Tencent 2022) within WeChat offers active users worldwide access to the world's cultural heritage as part of their everyday digital routines, without time or geographical constraints. With the progressive integration of its services and features into WeChat, the virtual Palace Museum has evolved from a mere information provider to a comprehensive public service provider through Mini Programs. This affords the audience virtual access to the museum, alongside features previously available only on the museum's official website, such as ticket booking, live onsite traffic maps, and exhibition updates.

This study aims to critically examine the Palace Museum's Mini Program nested on WeChat to provide insights into the virtual museum (VM) visiting experience. While previous studies have primarily viewed the digital-technologies-enabled experience as complementary to enhance and support physical visits (Sundar et al. 2015; Tallon and Walker 2008), this article argues that social-media-platform-enabled VM infrastructures go beyond being mere assistance to physical visits. Instead, it positions the VM visiting as an integrated and recontextualized experience that potentially challenges conventional museum visitation (Smith 2006). In other words, the VM is not merely supplementary but offers an alternative museum experience, facilitating connected and immersive digital engagements with museum content, transcending the limitations of physical presence for the audiences.

Adopting a methodology inspired by collaborative autoethnography and walkthrough methods, four researchers experienced the virtual Palace Museum Mini Program on WeChat for the first time in 2023, despite prior visits to its physical counterpart at least a decade ago. Between April and October, we observed, documented, and discussed our VM visiting experiences. As a part of a broader project that makes an inaugural effort to explore the VM through the lens of rhizome theory (Deleuze and Guattari 1987), this article analyzes the visiting experience from a rhizomatic perspective that underscores connection, multiplicity, and cartography. It attempts to answer the following question: what kind of VM experience is enabled? To what extent is the VM experience rhizomorphous? By addressing these questions, this paper offers original insights on the VM visiting experience through the lens of the audience and proposes an alternative theoretical and methodological framework for understanding

museums from the perspective of the unprofiled ‘digital public’ (Bettivia and Stainforth 2022) for the current VM study.

2. Literature review

2.1 *Virtual museum and its visiting experiences*

Although not the key concern of the article, it is worth pointing out that the very definition of the virtual museum is debated both within and across disciplines (Pescarin 2014; Bentkowska-Kafel 2020) and has been used interchangeably with the terms digital museum, online museum, electronic museum and web museum (Schweibenz 2004; Pujol and Lorente 2012). Embracing the philosophical stance that emphasizes the virtual as potential (Lévy 1998; Pujol and Lorente 2012), we approach the virtual museum not in opposition to the real (Lévy 1998; Desvallées and Mairesse 2010) and not as an analogous substitute for the physical institution (Gaia et al. 2020; Burke, Jørgensen and Jørgensen 2020). Instead, we adopt a constructive definition of the virtual museum as a virtual space where a body of digital objects are collected and presented so that ‘visitors can communicate between them, and explore, create or modify spaces and (digital or digitalized) objects’ (Pujol and Lorente 2012: 45). Highlighting audiences’ engagement and experience, this definition positions the virtual museum within the extensive intellectual thinking that contemplates on visitors’ critical role in meaning-making. As exemplified by the idea of active audiences (Bourdieu, Darbel and Schnapper 1991; Hall 2001) as well as the concept of the unfinished museum (Carr 2001; Stylianou-Lambert 2010), such an approach challenges institutions’ authoritative power in producing knowledge and curating experience. In addition, to join the scholarly dialogues about the virtual museum (VM), we take on the acronym VM visiting experience to differentiate the visiting experience of virtual museums from the technology-enabled virtual experience in physical museums.

Existing literature on the VM visiting experience tends to focus on two areas: VMs’ interface usability (e.g., Kersten, Tschirschwitz and Deggim 2017; Petridis et al. 2013; Barbieri, Bruno and Muzzupappa 2017; Macdonald 2015) and its implications as an educational tool (e.g., Verde and Valero 2021; Klentien 2022; Kampouroupoulou et al. 2013; Taranova 2020). The former collection of academic endeavors evaluates users’ interaction with digital technologies against the heuristics of immersion (Barbieri, Bruno and Muzzupappa 2017) and presence (Li, Nie and Ye 2022; Styliani et al. 2009), to name two relevant dimensions. Conversely, the latter concerns knowledge acquisition through audiences’ engagement with the exhibited objects and content, underscoring the educational purpose of the museum’s information sharing (Roberts 2013). The two bodies of literature rarely intersect, even though plenty of studies suggest that digital technologies enrich the audience experience in physical museums (Light, Burgess and Duguay 2018; Tallon and Walker 2008). More intriguingly, in their considerations of audience experience, few are dedicated to interrogating the meaning and effect of this new form of connection for audiences, let alone its particular implementation on social networking platforms. Often overlooked is that museum visiting, VM visiting included, is a lived experience with the embodied involvement of the audience’s mind and body (Roberts 2013). If we consider the VM as a virtual space that is more than a collection of digital objects, a more holistic examination of the relations between the VM, audiences, digital interfaces and infrastructure, as well as other mediators, is thus required. Audiences’ engagement with exhibitions and the museum is instrumental in shaping their experience. So are their encounters with the facilities and other post-visit life events (Falk and Dierking 1992).

2.2 *Theorizing virtual museum visiting experiences through the rhizome*

To account for the complexities of the multiple connections involved in shaping the VM visiting experience, we propose the theoretical framework of the rhizome. Introduced by Gilles Deleuze and Félix Guattari in 1980, a rhizome is a non-linear, non-hierarchical and acented system. As an assemblage of

multiplicities, a rhizome is characterized by six principles: connections, heterogeneity, multiplicity, asignifying rupture, cartography, and decalomania (Deleuze and Guattari 1987). It is conceptualized as an open map, with multiple entryways and any point connectable to anything other ‘in random and unregulated relationships’ (Best and Kellner 1991: 99). With the lines of flight of these entryways and connections, a rhizome deterritorializes and reterritorializes both as and into multiplicities. Set in contrast with the tree-root and radicle systems, a rhizome embodies the notion of heterogeneity and possesses no pivot, universals or genealogies.

The rhizome’s features of fostering heterogeneous connections align harmoniously with contemporary discourse on enhancing the museum visiting experience. In the case of VM studies, the rhizome theory provides a theoretical foundation for the refusal to postulate the VM as an analogous substitute for the physical institution (Deloche 2001; Schweibenz 2004; Gaia et al. 2020). As illuminated by Deleuze and Guattari (1987), the doctrine of analogy is arborescent as it presupposes a transcending one from which the rest develops. It indicates the conformation ‘in varying degrees to a single, eminent term, perfection, or quality as the principle behind the series’ (Deleuze and Guattari 1987: 234). Hence, instead of comparing the VM visiting experience with that of the physical museum, constructing the latter as the privileged reference, we theorize the VM visiting experience in its own terms of connections that deterritorialize and reterritorialize to form multiplicities.

Most cultural institutions might be categorized as conforming to a tree-root structure due to their unparalleled power in governing and stratifying information as well as methods of knowledge-sharing. One significant implication of rhizome theory is that even a root-tree structure can be transformed. Rhizome and tree-root systems are not dualistic binaries or ‘two opposed models’ (Deleuze and Guattari 1987: 20), but tendencies with varied intensities (Buchanan 2007). ‘There exist tree or root structures in rhizomes; conversely, a tree branch or root division may begin to burgeon into a rhizome’ (Deleuze and Guattari 1987: 15). What Deleuze and Guattari are describing is a rhizomatic perspective, with which new connections that are not dictated by an imposed order can be formed to transform the tree into the rhizome, even though only partially. This potential for transformation is termed ‘rhizomorphous’ (Deleuze and Guattari 1987: 15).

With a rhizomatic perspective, audience engagement is discerned to be the vital force that drives the VM to be rhizomorphous. As we will argue in this paper, their interactions, acting as lines of flight, open up the boundaries of the VM and the digital technologies it involves. Following Deleuze and Guattari (1987), we ask: what connections are made possible by the VM? What are their modes? How are they fabricated? Moreover, a non-dualistic rhizomatic perspective invites us to contemplate disconnection to avoid being trapped in an imposed dualism. Recognizing that disconnections are also a necessary and constructive part of the online experience, alluding to the audiences’ agency (Light 2014; Light, Burgess and Duguay 2018), we endeavor to investigate disconnections and ambivalences to yield a more comprehensive understanding.

3. Methodology

Our collaboration is inspired by and adapted from the methodological exploration done by many collaborative autoethnographers (e.g., Chang, Ngunjiri and Hernandez 2016; Roy and Uekusa 2020; Hornsby, Davis and Reilly 2021). As proponents of collaborative autoethnography, Hernandez, Chang and Ngunjiri (2016) defined the methodology as ‘autoethnography that engages two or more autoethnographers in a research team to pool their lived experiences on selected sociocultural phenomena and collaboratively analyze and interpret them for commonalities and differences’ (Hernandez, Chang and Ngunjiri 2017: 251). We were drawn into the method for its ‘multivocality and research rigor’ (Hernandez, Chang and Ngunjiri 2017: 252) that allows the authors (hereafter addressed with their initials as YZ, LJ, FW and BW in this article) to work together as co-creators. Despite all from China and having received higher education to the doctoral level, our research specialties, understanding of museums,

preferences in VM visits, and social media usage habits vary significantly from each other. Our VM visits are at first personal and then become collaborative when we discuss them in meetings and conversations. Our aim is ‘to describe and systematically analyze personal experience in order to understand cultural experience’ of the VM visiting (Ellis, Adams and Bochner 2011: 273).

On the other hand, existing studies on VM visiting experiences often neglect that the researchers are also audiences, and the visiting is also a type of lived experience (Roberts 2013). In this paper, we rely on our collaborative autoethnographical work to enable the researcher’s perspective to be in dialogue with the experience offered by the VM. Taking ourselves as research subjects of this inaugural project of a broader endeavor, we attempt a more holistic consideration of the nuances and subtleties within this emerging space through critical self-reflection and productive collaboration (Roberts 2013).

Our collaborative autoethnographic practice also works with the walkthrough method to explore how the Palace Museum Mini Program on WeChat enables visitors to document the immersive and subjective dimensions of navigating VM space. Instead of cementing an existing and united voice, we embrace the multiplicities derived from a ‘rhizomatic map’ (Stehik 2004: 42). In particular, we accessed the Mini Program through different approaches and considered different aspects during our visits. As such our interactions both with the Mini Program and ourselves are connected with multiple entry points similar to a rhizome (Deleuze and Guattari 1987).

The collaboration was carried out between April and October of 2023, and our data consists of autoethnographic notes on using the Palace Museum WeChat Mini Program, group meeting discussions, and reading group memos. For the first month, we held reading sessions on *A Thousand Plateaus: Capitalism and Schizophrenia* (Deleuze and Guattari 1987) every other week to further explore the possibility of a rhizomatic visiting experience. In the meantime, we started collecting our autoethnographic notes on our VM visits. To thoroughly reflect upon and analyze our visiting experience on WeChat, our autoethnographic work incorporated elements from the walkthrough method. This included engaging with the Palace Museum WeChat Mini Program’s interface and examining its technique features, such as social functions, textual content and tones, symbolic representation, and embedded cultural discourses, to understand how it guides users and shapes experiences (Light, Burgess and Duguay 2018). During this process, we interacted with the VM’s homepage, purchasing page, map navigation, exhibitions, Palace Virtuality, and the Panoramic Palace Museum while engaging with the platform’s various features, such as location-based features, cross-platform connectivity features, and reporting features, and observing the navigation within the exhibition design, and other specifications. We took detailed notes (textual and audio) and captured screenshots, looking for actions the platform requires, encourages, manages, and regulates to visit the museum through its specific affordances. All four of us accessed the app with our own devices, including iPhones, iPads, Android phones, and desktops, and we did this following our personal schedules instead of a set plan.

Once every two weeks, we met via Zoom for a discussion to filter out the themes from the field notes and our readings. We presented our notes to each other and discussed the happenings and feelings of our visits to the Palace Museum Mini Program. Comparing and contrasting our notes, we acknowledged the heterogeneity of our visiting experiences and analyzed them according to the six rhizomatic principles. In this context, our collaborative autoethnographic approach extends to analyzing our engagement with VM on WeChat. With a rhizomatic perspective, this openness to the unpredictable nature of connections and layered engagement reflects the unexpected ways in which our VM visiting experiences are shaped.

4. Discussion

4.1 A note on the Palace Museum on WeChat

Before we present our findings, a brief introduction to WeChat and the Palace Museum’s presence on it will help set the scene. WeChat is an all-inclusive app that consolidates services across diverse aspects

of everyday life, providing a comprehensive and seamlessly integrated user experience. WeChat achieves this by continually establishing connections with external businesses and partners and offering a set of Application Programming Interfaces, which allows developers to build and run their applications on top of WeChat through Mini Programs. Rather than being stand-alone platforms, these are what Tiwana (2014) conceptualizes as ‘nested platforms’, as they are written in WeChat’s proprietary coding languages, and comply with platform guidelines and rules, only existing and operating within the context of WeChat (Plantin and de Seta 2019). This means that WeChat maintains control over the operation of Mini Programs while simultaneously structuring the interactions between the platform and its users. In this sense, WeChat has enabled unprecedented levels of connections between disparate entities, forming an extensive, interconnected network.

The Palace Museum’s engagement with this pervasive, ubiquitous, and widely adopted WeChat represents a significant shift in how museum visiting experiences are organized within social media, with the platform playing a pivotal role in driving these transformations. The integration of the Palace Museum into the WeChat ecosystem of Mini Programs allows the museum to effectively engage with potential audiences and promote its services through a variety of WeChat features. Simultaneously, this reshapes not only how the museum functions and delivers specific services but also influences the dynamics of interaction among audiences. The specific affordances of WeChat bring diverse parties together and govern the relationships among them, shedding light on the properties of a socio-technical environment that enable or constrain certain types of practices and thus shape the visiting experience. It is important to consider how these connections occur through various lines of action, providing specific users with distinct interactions within their immediate visiting environment within the Palace Museum Mini Program and the broader visiting context within and beyond the scope of WeChat. Therefore, users’ visiting experience results from the interplay between technology, user, and context.

4.2 Virtual visiting as the rhizomorphous mapping

Navigating through the virtual Palace Museum, audiences can access virtual exhibitions, digitized archives of artifacts, virtual tours of buildings in the Forbidden City, and online gift shops. During our discussion of the virtual visiting experience, LJ demonstrated great enthusiasm for wandering around the Forbidden City, appreciating its virtual space with uncompromised vividness. She commented, ‘it was so great that I can actually move around freely in the space’ (Meeting Note on May 24, 2023). By ‘freely’, she referred to the relatively comprehensive virtual accessibility of the museum’s architectural space, including gardens, halls, and courtyards. For instance, in the Panoramic Palace Museum, audiences are at liberty to explore anywhere marked with a name label on the Museum’s map without having to follow a planned route (Figure 1). FW, however, disagreed, ‘I found it quite the opposite as I was bound by the designated positioning and routes’ (Meeting Note on May 24, 2023). What she described here was the curation of stitched VR photographs, with interactive panoramas only provided from predefined positions (Figure 2). Similar to Google Street View, directions of progression from these positions are limited, guided by arrows or designed icons. The Hall of Mental Cultivation in the Palace Virtuality is one such example (Figure 3). Once entering the hall, audiences can only follow the arrow on the floor for their tours. Clicking the arrow or aiming at it with a VR headset, the next positional panoramic appears after a zoom-in transition.

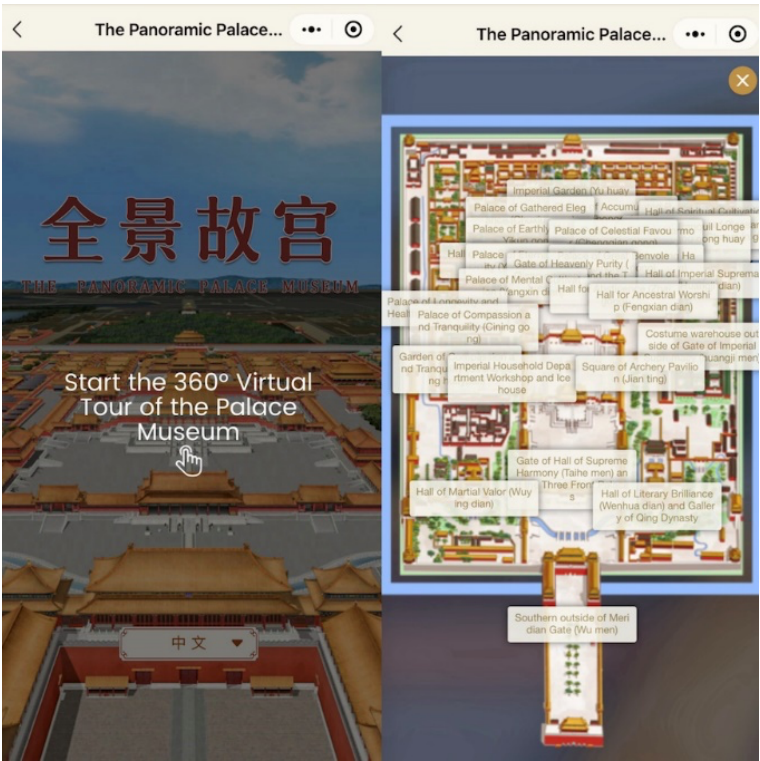


Figure 1. The Panoramic Palace (accessed on November 23, 2023)
Landing page and map page with a great number of places labeled for virtual visits

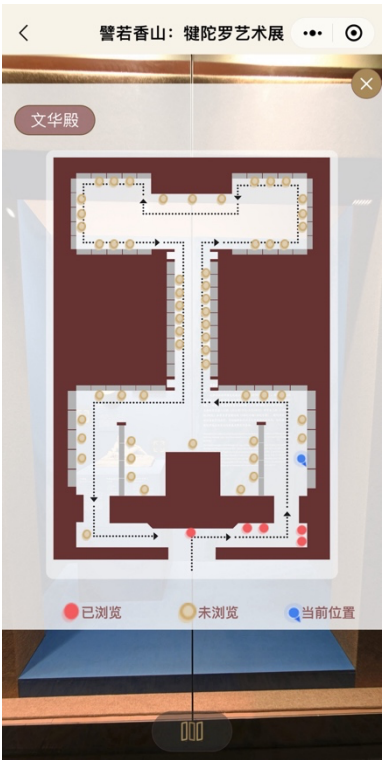


Figure 2. Curated Exhibition Route
An example of the curated route for the virtual exhibition ‘Gandhara Heritage along the Silk Road’



Figure 3. Curated Visiting Experience
The marked arrow on the floor indicates the predefined position

At the root of their disagreement is a concern over the museum's authoritative power over audiences' experience. Whereas LJ remarked on the museum's hospitable offering of plentiful resources at the audiences' disposal at their own will, FW noted the impediments and their effects on framing the audience's journey. This contradiction is encapsulated by Deleuze and Guattari in the rhizome's fifth and sixth principles: cartography and decalcomania. According to them, decalcomania, or the tracing, is associated with the tree-root and aims to reproduce its formations 'on the basis of a centered or segmented higher unity' (Deleuze and Guattari 1987: 16). In contrast, cartography is the creation of a rhizome, or the map. Less clearly defined in its own terms and set in opposition to the tracing, the map is characterized by productive constructions and productions of heterogeneous multiplicities. The juxtaposition of these two contrasting principles as both rhizomatic alludes to Deleuze and Guattari's (1987) rejection of dualism: 'there exist tree or root structures in rhizomes; conversely, a tree branch or root division may begin to burgeon into a rhizome' (15). The dualism here is, therefore, 'methodological rather than ontological' (Adkins 2015: 30). Rather than condemning the tree-tracing and eulogizing the rhizome-map, Deleuze and Guattari intend to propose a way to deterritorialize the centrality, nourish lines of flight and open up rigid structures for transformations, connections, and productions. 'To be rhizomorphic' (Deleuze and Guattari 1987: 15). This tension between reproducing a central order and fostering multiplicity is what FW and LJ have discerned in their virtual visits. It is only evident that the Palace Museum aims to replicate the physical visiting experience with enhanced features and idealizations. This ambition can be perceived in the presentation of virtual exhibitions.

Take 'A Literacy Legacy' (2023) as an example. In its own Mini Program, the exhibition journey starts with a large advertising board of the exhibition, located at the first landing after entering the gate to the West Yanchi Building. Rather than parachuting audiences into the exhibition hall, the Mini Program invites them to click 'forward' eight times and experience the wooden staircase and the hallway of the architecture that housed the exhibition. At particular viewpoints, audiences can 'turn' around to appreciate the surrounding building complexes. By promoting the sense of 'being there,' the museum sets the physical visit as the only reference, through which audiences via the Mini Program are expected to sustain their encounter with the artifacts and cultural heritage site. In this sense, VM visiting is merely another replicating tracing of the physical experience at the Palace Museum in the heart of Beijing. As elucidated by Deleuze and Guattari, a tracing is unproductive and homogenizing. This is precisely what was implied in FW's comments. With predefined positions and curated routes, all audiences' virtual journeys within a particular scenario, for instance, an exhibition, a hall, or a courtyard, are bound to be similar. Different directions might be taken at specific points, but the possibilities are limited. Moreover, all audiences are positioned at the same height during their tours and the same distance from the artifacts and architecture, eradicating individual idiosyncrasies. In a like manner, all the represented spaces are marked by the evacuation of any other individuals (except for a non-player character in a game embedded in the virtual tour of Juan Qin Zhai (the Rest Lodge) and the deprivation of any immediate indication of time, such as change of weather and light. Technology is undoubtedly a reason for these limitations. More importantly, it postulates that a digital duplication of the actual museum will yield only impasses and obstructions. After all, the audiences are NOT at the actual site and will be reminded of this in various instances (Schweibenz 2004). Here, we recall Deleuze and Guattari's caution against setting the dualism between tracing and map, as we also spotted lines of flight in this tracing that could open it up towards a map with multiple entryways and points for unregulated connections. LJ's recognition of the unfettered roaming over the locations on the digital map is one of them. With profuse places accessible for virtual tours, the number of possible visiting routes undergoes exponential growth. The increase is in both extensity and intensity, with an enhanced feeling of empowerment: audiences are bestowed with not only the power to wander around as they like, but also the prospect of a comprehensive visit less affected by temporal and physical limitations. Their participation and engagement deterritorialize the obstructions and drive the VM rhizomorphic.

4.3 The performing of a rhizomorphous map

In terms of planning a visiting journey, our distinct habits of navigating museums and browsing apps played a vital role. When we started to discuss field notes, we instantly noticed that we took an interest in different exhibitions and toured the VM in very different orders. BW's and FW's journeys commenced with the exhibition 'Gold and Jade Artifacts' (2023), for it was the first in the centrally positioned row of exhibitions, while YZ selected 'A Literary Legacy' (2023) as it was advertised in the sliders at the top of the home page. Instead of any exhibitions, LJ started with the bottom banner (including 'Recommendation', 'Visiting the Palace', 'Cultural artifacts', and 'My Profile') (Figure 4). It took us a few meetings to determine if we should formulate a unified visiting plan. Eventually, we decided not to because we not only acknowledged and expected museum visiting to be a heterogeneous experience but also realized that such variations characterized the affordances of the VM. It is these unpredictable variations and multiplicities that we can relate to the rhizomorphous map.



Figure 4. Virtual Palace Museum Home Page Layout (accessed on December 14, 2023)

The top sliders highlight events and activities available on the virtual Palace Museum. The row of squared images includes posters of recent exhibitions.

Moreover, taking advantage of technology, the VM incorporates more interactive activities, including the guided tour in the Rest Lodge, where audiences assume the avatar of an apprentice craftsman in the Qing Dynasty and follow the instructions of an experienced senior to complete a series of challenges. In this process, audiences would learn about the building and traditional crafts. 'It was like that popular adventure role-playing video game that I played in the 2000s,' LJ stated (Meeting Notes on May 24, 2023). If the gamified tour prompts audiences to connect their visiting with childhood memories and other entertaining activities, evoking a sense of nostalgia, features that foster daily engagement, such as *Jiujiu Xiao Han Tu* (the Nine-by-nine Diagram) and *Meiri Gugong* (Palace Museum Every Day), anticipate the integration of museum visiting into audiences' everyday practice. With these experimentations, the VM is recontextualized. It engenders experiences that interweave with the audience's personal context with

enhanced intensity. In this sense, the VM visiting is more of a performance, for it is not just about the capability to comprehend the contents as they were delivered, but also an ongoing process of making sense in relation to our own dispositions. This contrast echoes what Deleuze and Guattari (1987) marked for the map and the tracing. ‘The map has to do with performance, whereas the tracing always involves an alleged “competence”’ (Deleuze and Guattari 1987: 12-13).

It is worth noticing that the rhizomorphous dynamic between a tracing and a map can be found in any museum visiting. On the one hand, any visit is evidently conditioned by what is made possible by the museum, from its history and architectural space to its own social, cultural, and political agendas as an institution. On the other hand, audiences’ distinct perspectives, varied expectations, and diverse habits of navigating museums would induce some lines of flight and elicit very different experiences and memories. It is, however, in this unique case where a VM is constructed on a social media platform that we perceive an intensified tendency to be rhizomorphous. This is primarily manifested in two aspects: one is the enriched unpredictability. Apart from the multiplication of variations in visiting trajectories and experiences, the ubiquity and embeddedness of WeChat in everyday life also contributed to the uncertainties/complexities. As will be addressed in the next section, the VM visiting experience constantly interweaves with and integrates into the audience’s other digital and physical encounters. It is, therefore, impossible to pre-determine the context of visiting except that it could take place anywhere with anyone.

The other aspect is the multiple entryways, which was considered one of the most important characteristics of the map (Deleuze and Guattari 1987). To enhance the accessibility of Mini Programs, WeChat enabled the function of *Recently Used Mini Programs* and *My Mini Programs* in 2018. After the initial entry to the Palace Museum Mini Program via the built-in search function on WeChat, users only need to pull down the main page to select from the head banner for subsequent access (Figure 5). What is more, as the VM is developed and designed through WeChat Mini Programs, many of its features, such as the *Meiri Gugong* (The Palace Museum Every Day) and *Gugong Taoci Guan* (The Porcelain Hall of the Palace Museum), are, in fact, Mini Programs themselves. Consequently, audiences do not have to access them through the VM’s main portal but engage with the preferred museum functions on their own. It should be noted that if they enter a particular Mini Program this way, they cannot access the main portal without returning to the WeChat main page. But again, as Deleuze and Guattari observed, the line of flight can be recaptured by a tree-structure and there could be blockages in rhizomes.

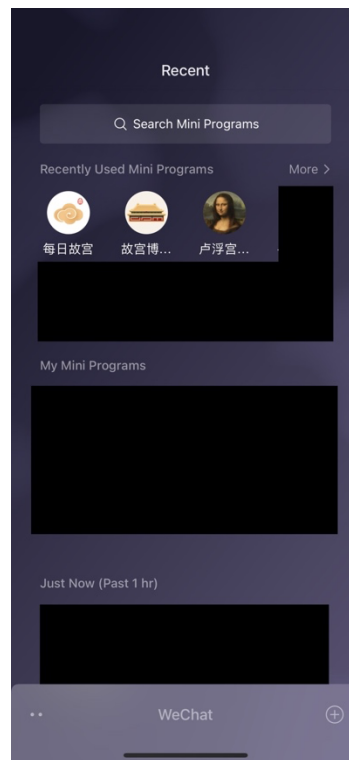


Figure 5. Multiple Entryways to Access Virtual Palace Museum Features

Palace Museum Every Day and The Palace Museum as two distinct Mini Programs shown in Recently Used Mini Programs on WeChat

The enhanced unpredictability and multiple entryways are effective lines of flight with which the map of VM visiting grows, expands, makes new connections and forms heterogeneous multiplicities. The map is only rhizomorphous, with constant deterritorialization and reterritorialization, when the visiting is performed. Integral to this performance are the audience's personal traits, perspectives, and habits regarding digital engagement and museum visiting. Exploiting the VM's rhizomorphous potential is, therefore, essential to yield heterogeneous visiting experiences.

4.4 Reconceptualizing (dis)connections

The ubiquitous 'Share' button was a frequently noted feature in our visits and discussions. It pops up when, for example, checking in different palaces, collecting postcards featuring beautifully crafted and dedicated photos of the museum, saving artifacts to the favorites, and completing a task in a game. Additionally, all the WeChat Mini Programs and pages can be shared to in-app chats. In some nested Mini Programs, such as *Meiri Gugong* (The Palace Museum Every Day) and *Zi Jin Cheng 365* (Forbidden City 365), pages can also be straightforwardly posted to Moments feeds, where audiences' WeChat contacts would be able to see them. Through sharing, connections with prospective audiences, as unregulated lines of flight, were fabricated.

Such an invitation to share is not surprising; the essence of a vibrant social media platform resides in the seamless flow of information between individual nodes, making sharing a structural affordance (Papacharissi and Yuan, 2011; John, 2017). The integration of social media's technical features into the Palace Museum on WeChat indicates a deliberate effort to enhance the overall interactive and dynamic nature of the virtual museum-going experience on WeChat.

However, WeChat's endeavor to foster connections as a social media platform sometimes inadvertently disrupts the visiting experience, engendering disconnections in the seamless exploration of a museum. For instance, constant prompts for social interactions, notifications, or pop-ups may distract users from

the primary objective of the immersive museum-visiting experience. Since WeChat Mini Programs cannot continue running in the background, sharing could cause the program to be halted abruptly in some cases. FW recalled that she was forced out of her visit when a WeChat call from her mom snatched the screen (Meeting Note on May 11, 2023). Disconnected from the museum, she was immediately connected with her personal context: a young woman who lives far from her parents in Europe, which permeated her museum-visiting with social-cultural positionalities.

As a hosting platform, WeChat also configures the perceived range of possible actions linked to the VM visiting experience. One notable example is the technological errors that occurred during our individual visits.

[Meeting on May 11. LJ was absent due to illness.]

YZ: Were you able to use the Little Lion?

WB: Ah, the Little Lion, I can't use it. I thought this was because I'm not in China.

FW: I assumed my phone and the operating system were too outdated for it.

YZ: I was wondering if it was due to location restrictions. If we all can't use them, it's probably that.

[Meeting on June 20]

WB: ...just like the Little Lion, it won't work for virtual visitors!

LJ: Which Little Lion? Where was it? I didn't notice at all...

YZ: Just down the home page, there was a pop-up symbol on the bottom right of the screen. Also, I noticed that Hall of Mental Cultivation in Palace Virtuality didn't work on my Android tablet, but it was fine on my iPhone. Does it work on your systems?

FW: So what was it like [when it didn't work]?

YZ: it says 'there was a problem. Please visit the website.'

[Meeting on July 1]

LJ: There were personalization functions, such as creating your own collection.

YZ: Yes, I saw them, but I couldn't use them.

FW: Where to find them?

YZ: In *Minghua Ji* (Collections of renowned paintings) and *Wenwu Ku* (Artifact archives).

WB: Me neither. It asked me to register with a telephone number from mainland China.

FW: I didn't want to share that information.

LJ: But I can use it...Ah, it must be because I already registered when I tried to book the tickets [to the Palace Museum].

While talking, we navigated the museum to test these functions on our devices. Always prompted by a curiosity about the others' visiting experience – 'does it work for you' and 'I didn't notice, where was it', the digital disconnections - *unable to access* elements of the VM - led to sessions of group visits when we simultaneously accessed the VM and communicated our experience in real-time via Zoom. With the visits and communications, our individual visiting experience was multiplied in a rhizomatic manner, not only in its extensity – as the time of visits multiplied, but also in intensity – as the experience was profoundly transformed in its engagement with the VM, social networking tools (both WeChat and Zoom), and the group.

A similar account of technical disconnection was marked by YZ; only hers was *not to access* the VM:

The exhibition took longer than I had expected. After finishing the first hall at the Meridian Gate, I made instant noodles. After the meal, I resumed visiting, surrounded by the warmth and smell of my food, which prompted me to wonder about other visitors' sensory experiences during their visits. (From YZ's field note on May 10)

Two things are highlighted here. Firstly, due to the digital essence of VM visiting, audiences have to use facilities in their own physical space. From the audiences' perspective, restrooms, cafés, and gift shops are all part of the museum experience, for they perceive 'the museum as a seamless whole' (Falk and Dierking 1992: 93; 2013: 227). In the case of the VM, however, facilities such as toilets, catering, and WIFI are accessed in a physical space entirely separated from the VM's contents, exhibitions, and

displays. Yet, these functions are exactly where the two spaces intersect. The smell of the food, the temperature of the physical space, the noise in that space, and even the way the audiences use the device, all these are ‘possibilities offered by the physical environment for social interaction’ (Gaver 1996: 114), which are going to be part of the memories of visiting the museums.

Rather than complete cut-offs, the *not-to-access* digital disconnection(s) are like scenario switches with interlacing traces, often permeated with identity-related markers, as what one eats and where one goes reveal personal information (Köster 2009). Specifically, YZ’s decision to make instant noodles reflects her cultural origin in East Asia, where instant noodles’ largest markets are found (Li and Chung 2021). Detached from the virtual space, food and toilets become distinct experiences not dictated by the museum or its contractors. In this escape, connections with one’s personal context are derived, underlined by individualization and heterogeneity.

These embedded heterogeneous experiences were acutely picked up by YZ in her curiosity about the experiences of other virtual visitors. Her curiosity is not uncommon. During physical museum visits, one’s behaviors, emotions, and feelings are impacted by other visitors (Casey 2003; Falk and Dierking 2013; Parker and Saker 2020). Physical disconnections with others during VM visiting could, therefore, be made up with the imaginary positioning of fellow audiences in their own spaces. Such curiosity and social imagination are rhizomatic lines of flight as they form new heterogeneous connections and establish multiplicities.

What we have observed in our field notes is, therefore, an ambiguity in defining connections and disconnections in the VM visiting experience. With a rhizomatic perspective, we discern that they are more often interwoven in continuity than discretely separated. With this non-dualistic ponderance, the construction of the audience-museum as the central axis of conceptualizing (dis)connections is displaced. When audiences are disconnected from the VM, they are in connection with other contexts and experiences that will feed back to their VM visiting. Audiences, their actual and imaginary fellows, their mobile devices, the VM, the physical space they occupy, the facilities they utilize, WeChat, and the internet are all strings that fabricate a rhizomatic museum-visiting experience. Given this insight, we advocate a non-individualistic approach to the museum-visiting experience. As our analysis has revealed, not only do one’s cultural-social background and observations play a role in their visiting and meaning-making, but so do the personal context of the other imaginary or actual, current or prospective companions. Beyond the engagement with the VM, these connections should be carefully ‘mapped’ to holistically account for the lived experience of VM visiting.

5. Conclusion

This article carefully reviewed the lived visiting experience of the virtual Palace Museum Mini Program on WeChat. Informed by the rhizome theory of Deleuze and Guattari, we argue that the VM visiting experience is an act of mapping thanks to its ongoing performance of making sense in relation to audiences’ own dispositions. With enriched unpredictability and multiple entryways facilitated by WeChat, the visits drive the VM rhizomorphic and construct a new knowledge system that invites self-referential, spontaneous and heterogeneous connections. In addition, enhanced by the platform’s ubiquity and accessibility, notions of connections and disconnections in the VM visiting experience are often closely interwoven. Such reconceptualization effectively displaced the positioning of the museum-audience as the central axis of the concept of (dis)connections and demanded a non-individualistic approach to fabricating connections.

Rather than attempting to define the Virtual Palace Museum on WeChat as a rhizome, we have discerned some robust tree-like structures in the current VM, such as the obstructed entryways and the limited freedom in an exhibition. With this case study, we would like to advocate rhizomorphic experimentation. In the context of the VM, such experimentation should commence with the notion that it is not aiming for a duplication of the physical museum and museum-visiting experience. New models

of museum audience engagement, in both the physical domain and virtual space, should be explored, for they are the pivotal forces that drive the VM to open up for broader accessibility and heterogeneous affordances. Moreover, we acknowledge that not all experimentation will create something new, as implied by the unpredictable essence of the lines of flight. The outcome cannot be foreseen. However, this ‘can only be known through experimentation’ (Adkins 2015: 30–31).

For the experimentation to be feasible and practical for implementation strategies in museology and cultural policy, we also acknowledge that more research should be done to enhance the generalizability and transferability of our findings. Specifically, further probe into the heterogeneity of the (dis)connections enabled by VM is required. In our collaboration, we noticed many times that our different academic training and social-cultural backgrounds yielded varied expectations and perspectives during our visiting journeys. These insights have steered us to more thorough discussions of the audiences’ visiting behaviors and motivations with a more substantial sample of visitors from different demographic backgrounds and digital literacy in our following studies. To pave the way for these further investigations, we presented our collaboration, with its proposal of an innovative methodological and theoretical framework, as a pilot study for discerning the nuances and subtleties of the insufficiently studied experience of emerging VMs.

References

- Adkins, B. (2015) *Deleuze and Guattari’s ‘A Thousand Plateaus’: a Critical Introduction and Guide*. Edinburgh: Edinburgh University Press.
- Art Institutions x Web 3. (2023) *Metaseum Report*. Art Institutions x Web 3. Unpublished.
- Barbieri, L., Bruno, F. and Muzzupappa, M. (2017) ‘Virtual Museum System Evaluation Through User Studies’, *Journal of Cultural Heritage*, 26, pp. 101–108. Available at: <https://doi.org/10.1016/j.culher.2017.02.005>.
- Bentkowska-Kafel, A. (2020) ‘Virtual Museum — The Concept and Transformation’, in J. Pilcher (ed.) *Culture, Technology and the Image. Techniques of Engaging with Visual Culture*. Intellect Books, pp. 88–108.
- Best, S. and Kellner, D. (1991) *Postmodern Theory: Critical Interrogations*. New York: Guilford Press (Critical perspectives).
- Bourdieu, P., Darbel, A. and Schnapper, D. (1991) *The Love of Art: European Art Museums and Their Public*. Cambridge, UK: Polity Press.
- Buchanan, I. (2007) ‘Deleuze and the Internet – AHR’, *Australian Humanities Review* [Preprint], (43). Available at: <https://australianhumanitiesreview.org/2008/12/20/deleuze-and-the-internet/> (Accessed: 28 February 2024).
- Burke, V., Jørgensen, D. and Jørgensen, F.A. (2020) ‘Museums at Home: Digital Initiatives in Response to COVID-19’, *Norsk museumstidsskrift*, 6(2), pp. 117–123. Available at: <https://doi.org/10.18261/issn.2464-2525-2020-02-05>.
- Carr, D. (2001) ‘A Museum is an Open Work’, *International Journal of Heritage Studies*, 7(2), pp. 173–183. Available at: <https://doi.org/10.1080/13527250117281>.
- Casey, V. (2003) ‘The Museum Effect: Gazing from Object to Performance in the Contemporary Cultural-History Museum’, *Ecole du Louvre, Paris*, pp. 1–21.
- Chang, H., Ngunjiri, F. and Hernandez, K.-A.C. (2016) *Collaborative Autoethnography*. 0 edn. Routledge. Available at: <https://doi.org/10.4324/9781315432137>.
- Chen, Y., Mao, Z., & Qiu, J. L. (2018). *Super-sticky WeChat and Chinese Society*. Emerald Publishing Limited.
- Clerkin, C.C. and Taylor, B.L. (2021) ‘Online Encounters with Museum Antiquities’, *American Journal of Archaeology*, 125(1), pp. 165–175. Available at: <https://doi.org/10.3764/aja.125.1.0165>.
- Deleuze, G. and Guattari, F. (1987) *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press.
- Desvallées, A. and Mairesse, F. (eds) (2010) *Key Concepts of Museology*. Paris: Armand Colin.
- Ellis, C., Adams, T.E. and Bochner, A.P. (2011) ‘Autoethnography: An Overview’, *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*. 2010th–11th–28th edn, 12(1). Available at: <https://doi.org/10.17169/fqs-12.1.1589>.
- Falk, J.H. and Dierking, L.D. (1992) *The Museum Experience*. Washington, D.C: Whalesback Books.
- Falk, J.H. and Dierking, L.D. (2013) *The Museum Experience Revisited*. 1st edn. Routledge. Available at: <https://doi.org/10.4324/9781315417851>.
- Gaia, G., Boiano, S., Bowen, J. P., and Borda A. (2020) ‘Museum Websites of the First Wave: The Rise of the Virtual Museum’, in *Proceedings of EVA London 2020*. Available at: <https://doi.org/10.14236/ewic/EVA2020.4>.
- Gaver, W.W. (1996) ‘Situating Action II: Affordances for Interaction: the Social is Material for Design’, *Ecological Psychology*, 8(2), pp. 111–129.

- Global Times (2021) Travel to the Louvre online! Newly launched Louvre Website in Chinese Wins Support of Chinese Netizens - Global Times. Available at: <https://www.globaltimes.cn/page/202104/1220816.shtml> (Accessed: 4 March 2024).
- Hall, S. (2001) 'Constituting an Archive', *Third Text*, 15(54), pp. 89–92. Available at: <https://doi.org/10.1080/09528820108576903>.
- Hernandez, K.-A.C., Chang, H. and Ngunjiri, F.W. (2017) 'Collaborative Autoethnography as Multivocal, Relational, and Democratic Research: Opportunities, Challenges, and Aspirations', *a/b: Auto/Biography Studies*, 32(2), pp. 251–254. Available at: <https://doi.org/10.1080/08989575.2017.1288892>.
- Hornsby, E.R., Davis, A. and Reilly, J. (2021) 'Collaborative Autoethnography: Best Practices for Developing Group Projects', *InSight: A Journal of Scholarly Teaching*, 16, pp. 104–114. Available at: <https://doi.org/10.46504/16202105ro>.
- John, N.A. (2017) *The Age of Sharing*. 1. Auflage. New York: John Wiley & Sons.
- Kampouroupoulou, M., Fokiali, P., Efstathiou, I. and Stefanos, E. (2013) 'The Virtual Museum in Educational Practice', *Review of European Studies*, 5(4), p. p120. Available at: <https://doi.org/10.5539/res.v5n4p120>.
- Kersten, T.P., Tschirschwitz, F. and Deggim, S. (2017) 'Development of a Virtual Museum Including a 4D Presentation of Building History in Virtual Reality', *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, XLII-2/W3, pp. 361–367. Available at: <https://doi.org/10.5194/isprs-archives-XLII-2-W3-361-2017>.
- Klentien, U. (2022) 'Development of Virtual Museum Model for Youth', *International Journal of Information and Education Technology*, 12(4), pp. 313–317. Available at: <https://doi.org/10.18178/ijiet.2022.12.4.1620>.
- Köster, E.P. (2009) 'Diversity in the Determinants of Food Choice: A Psychological Perspective', *Food Quality and Preference*, 20(2), pp. 70–82. Available at: <https://doi.org/10.1016/j.foodqual.2007.11.002>.
- Lévy, P. (1998) *Becoming Virtual: Reality in the Digital Age*. New York: Plenum Trade.
- Li, J. (2021) *A Three-part Framework for Understanding People's Everyday Practices on WeChat*. University of Sheffield.
- Li, J., Nie J.-W., Ye J. (2022) 'Evaluation of Virtual Tour in an Online Museum: Exhibition of Architecture of The Forbidden City', *PLoS ONE*, 17(1): e0261607. <https://doi.org/10.1371/journal.pone.0261607>
- Li, M., Sun, X., Zhu, Y. and Qiu, H. (2024), "Real in Virtual: The Influence Mechanism of Virtual Reality on Tourists' Perceptions of Presence and Authenticity in Museum Tourism", *International Journal of Contemporary Hospitality Management*, Vol. 36 No. 11, pp. 3651-3673. <https://doi.org/10.1108/IJCHM-07-2023-0957>.
- Li, M. and Chung, S.-J. (2021) 'Flavor Principle as an Implicit Frame: Its Effect on the Acceptance of Instant Noodles in a Cross-Cultural Context', *Food Quality and Preference*, 93, p. 104293. Available at: <https://doi.org/10.1016/j.foodqual.2021.104293>.
- Light, B., Burgess, J. and Duguay, S. (2018) 'The Walkthrough Method: An Approach to the Study of Apps', *New Media & Society*, 20(3), pp. 881–900. Available at: <https://doi.org/10.1177/1461444816675438>.
- Macdonald, S. (2015) 'Accessing Audiences: Visiting Visitor Books', *Museum and Society*, 3(3), pp. 119–136. Available at: <https://doi.org/10.29311/mas.v3i3.65>.
- Papacharissi, Z. and Yuan, E. (2011) 'What if the Internet Did Not Speak English? New and Old Language for Studying Newer Media Technologies', *The Long History of New Media*, pp. 89–108.
- Parker, E. and Saker, M. (2020) 'Art Museums and the Incorporation of Virtual Reality: Examining the Impact of VR on Spatial and Social Norms', *Convergence: The International Journal of Research into New Media Technologies*, 26(5–6), pp. 1159–1173. Available at: <https://doi.org/10.1177/1354856519897251>.
- Pescarin, S. (2014) 'Museums and Virtual Museums in Europe: Reaching Expectations', *SCIRES-IT*, 4(1). Available at: <https://doi.org/10.2423/122394303v4n1p131>.
- Petridis, P., Dunwell, I., Liarokapis, F., Constantinou, G., Arnab, S., de Freitas, S. and Hendrix, M. (2013) 'The Herbert Virtual Museum', *Journal of Electrical and Computer Engineering*, 2013, pp. 1–8. Available at: <https://doi.org/10.1155/2013/487970>.
- Plantin, J.-C. and De Seta, G. (2019) 'Wechat as Infrastructure: The Techno-Nationalist Shaping of Chinese Digital Platforms', *Chinese Journal of Communication*, 12(3), pp. 257–273. Available at: <https://doi.org/10.1080/17544750.2019.1572633>.
- Pujol, L. and Lorente, A. (2014) 'The Virtual Museum: a Quest for the Standard Definition', in P. Verhagen and G. Earl (eds) *Archaeology in the Digital Era*. Amsterdam University Press, pp. 40–48. Available at: <https://doi.org/10.1515/9789048519590-005>.
- Roberts, R.C. (2013) 'Questions of Museum Essence: Being, Being With, and Finding Connection in Conversation', *Museums & Social Issues*, 8(1–2), pp. 89–101. Available at: <https://doi.org/10.1179/1559689313Z.0000000009>.
- Roy, R. and Uekusa, S. (2020) 'Collaborative Autoethnography: "Self-Reflection" as a Timely Alternative Research Approach during the Global Pandemic', *Qualitative Research Journal*, 20(4), pp. 383–392. Available at: <https://doi.org/10.1108/QRJ-06-2020-0054>.
- Schweibenz, W. (2004) 'The Development of Virtual Museums', *ICOM News*, 2004(3), p. 3.
- Smith, L. (2006) *Uses of Heritage*. London: Routledge.
- Stehlik, D. (2004) 'From "Snowball" to "Rhizome": A Rethinking of Method', *Rural Society*, 14(1), pp. 36–45. Available at: <https://doi.org/10.5172/rsj.351.14.1.36>.
- Styliani, S., Fotis, L., Kostas, K. and Petros, P. (2009) 'Virtual Museums, a Survey and Some Issues for Consideration', *Journal of Cultural Heritage*, 10(4), pp. 520–528. Available at: <https://doi.org/10.1016/j.culher.2009.03.003>.

- Stylianou-Lambert, T. (2010) 'Re-conceptualizing Museum Audiences: Power, Activity, Responsibility', *Visitor Studies*, 13(2), pp. 130–144. Available at: <https://doi.org/10.1080/10645578.2010.509693>.
- Sundar, S. S., Go, E., Kim, H. S. and Zhang, B. (2015) 'Communicating Art, Virtually! Psychological Effects of Technological Affordances in a Virtual Museum', *International Journal of Human-Computer Interaction*, 31(6), pp. 385–401. Available at: <https://doi.org/10.1080/10447318.2015.1033912>.
- Tallon, L. and Walker, K. (eds) (2008) *Digital Technologies and the Museum Experience: Handheld Guides and Other Media*. Lanham, Md.: AltaMira Press (Museum studies technologie).
- Taranova, T.N. (2020) 'Virtual Museum Technologies and the Modern Educational Process', in. IFTE 2020 - VI International Forum on Teacher Education, Kazan Federal University, Russia, pp. 2513–2521. Available at: <https://doi.org/10.3897/ap.2.e2513>.
- Tencent (2022) Digitalization Offers Visitors a Unprecedented Access to the Forbidden Palace - Tencent 腾讯, Tencent. Available at: <https://www.tencent.com/en-us/articles/2201358.html> (Accessed: 1 May 2024).
- Thomala, L.L. (2023a) China: Most Popular Mobile Social Networks 2019, Statista. Available at: <https://www.statista.com/statistics/1069879/china-popular-social-media-platforms/> (Accessed: 20 September 2023).
- Thomala, L.L. (2023b) Wechat: Active Users Worldwide 2023, Statista. Available at: <https://www.statista.com/statistics/255778/number-of-active-wechat-messenger-accounts/> (Accessed: 20 September 2023).
- Tiwana, A. (2014) *Platform Ecosystems: Aligning Architecture, Governance, And Strategy*. Amsterdam: Morgan Kaufmann.
- van der Vlist, F. N., Helmond, A., Dieter, M., & Weltevrede, E. (2024). 'Super-Appification: Conglomeration in the Global Digital Economy', *New Media & Society*, 0(0). <https://doi.org/10.1177/14614448231223419>
- Verde, A. and Valero, J.M. (2021) 'Virtual Museums and Google Arts & Culture: Alternatives to the Face-to-Face Visit to Experience Art', *International Journal of Education and Research*, 9(2), pp. 43–54.

Politicisation and polarisation of health during COVID-19

A digital ethnography of alternative health influencers

Johanna Nurmi¹, Sanna Malinen² and Piia Jallinoja²

¹ University of Turku, Finland

² Tampere University, Finland

✉ johanna.m.nurmi@utu.fi

Abstract

This article explores how public health information was contested on social media during the COVID-19 pandemic. Through digital ethnography of four Finnish alternative health influencers, we examine their role in politicising and polarising health attitudes and pandemic governance, and how these dynamics evolved from the early to later stages of the crisis.

Drawing on social media content from three key periods – early pandemic (January–June 2020), late pandemic (October–December 2021), and post-pandemic (March–April 2025) – the study reveals that influencers amplified politicisation and polarisation of health and distrust in authorities by leveraging: 1) lay expertise rooted in personal pre-pandemic healing narratives, 2) alternative immunological framings, 3) explicit political opposition to public health measures, and 4) engagement with conspiracy narratives.

Influencer communication was characterised by opportunism, blending political activism, commercial interests, and personal wellness branding. By aligning with values of authenticity and trust, influencers cultivated belonging within alternative or conspiratorial health communities. Yet, their trajectories varied in terms of politicisation and conspiratoriness, illustrating how pandemic-driven polarisation unfolded within the alternative health scene. This study offers critical insights into the evolving dynamics of the health politicisation and the role of social media in shaping public trust in medical expertise.

Keywords: social media influencers, alternative health advocates, mistrust, distrust, nutrition, health populism, lay immunology, COVID-19 pandemic

1. Introduction

The COVID-19 pandemic intensified polarisation of health-related opinions, especially in Europe and North America (Jungkunz 2021). Public attitudes towards the pandemic became central to identity formation and fuelled affective polarisation – marked by intergroup comparison and negative sentiments

(see Iyengar et al. 2019). Politicization of health choices deepened as governments imposed strict public health measures such as lockdowns, travel restrictions, and vaccine passes.

This dynamic was compounded by rising mistrust and distrust, which undermined compliance with public health policies, even in high-trust societies such as the Nordic countries (Borin et al. 2024; Jallinoja et al. 2021). Understanding how politicisation, polarisation and trust evolve across diverse social contexts, including influencer-driven communities, is critical for strengthening societal resilience.

The pandemic sparked a heightened quest for health information (Dow et al. 2021) amid an information landscape marked by epistemic instability (Harambam 2020). Social media became both a key source of information and a driver of polarisation, amplifying voices critical of governmental policies (Verbalyte & Eigmüller 2022). In this context, many health influencers shifted to pandemic related content creation – some contesting public health recommendations and others even monetising misinformation (Moran et al. 2024; Baker 2022; Dow et al. 2020).

This article analyses how alternative health influencers¹ contested public health information during the COVID-19 pandemic and contributed to the politicisation of health, the polarisation of health-related opinions, and growing distrust and mistrust in public health authorities. Using digital ethnography, we analyse four Finnish alternative health influencers who, prior to the pandemic, focused on diet and nutrition. We trace how their content evolved across three periods between early 2020 and June 2025, highlighting shifts in politicised distrust, conspiracy narratives, and spiritual discourses. These developments are interpreted within literature on politicisation and polarisation of health, conspiracy thinking and *conspirituality*. Our findings demonstrate how alternative influencers reconfigured public discourse on health and health authorities during the pandemic.

The COVID-19 pandemic marked a pivotal moment for examining the role of social media influencers as key information brokers. With large follower bases, influencers have long leveraged their popularity for promotional purposes (Truman 2022: 149). Their persuasive power stems from parasocial, friendship-like relationships with followers (Bond 2016), which foster a sense of authenticity, credibility, and relatability. These qualities set influencers apart from traditional celebrities and public authorities, often making them appear more trustworthy (Baker 2022; Schouten et al. 2020). Identification with influencers is further reinforced by their perceived similarity and ordinariness (Schouten et al. 2020), enabling them to shape public opinion effectively. Even prior to the pandemic, many influencers had begun to act as ‘ideological intermediaries’, broadening their content beyond lifestyle themes to encompass political and ideological topics (Riedl et al. 2021; Arnesson 2023).

The pandemic amplified these dynamics. Alternative health influencers, in particular, challenged the credibility of public health experts and created new arenas for lay expertise (Au & Eyal 2021). Consequently, they were publicly identified as major conduits of COVID-19 misinformation (Maloy & De Wynck 2021). The parasocial trust they cultivated with followers meant that their messages retained high perceived credibility - even when those messages propagated misinformation (Mena et al. 2020).

Our study design is unique in that it spans multiple phases of the COVID-19 pandemic: we began fieldwork prior to the outbreak, continued during the early pandemic in 2020, collected materials from the later stages in 2021, and extended into the post-pandemic period in 2025. This longitudinal approach enables us to trace how influencers content evolved as they engaged in increasingly polarised and politicised debates around COVID-19. We ask: *How did alternative health influencers’ communication reflect the politicisation and polarisation of health issues and pandemic management across different stages of the pandemic? What transformations occurred in the ways influencers contested public health expertise?*

¹ We use the term ‘alternative’ to highlight that, before and during the pandemic, these influencers’ posts contested public health expertise. Likewise, we use the term ‘health’ because, while their pre-pandemic content centred mainly on nutrition, the pandemic broadened their focus to encompass a wider health discourse landscape.

In the following, we situate our study within the broader context of the pandemic and pandemic-related conspiracy theories. We then describe our research materials and methods, before presenting and discussing the findings.

2. Trust, politicisation and polarisation of health during the pandemic

Finland, like other Nordic countries, is characterised by high levels of social and political trust. During the pandemic, many European countries, including Finland, experienced a sudden surge in political trust (Kestilä-Kekkonen et al. 2022). Trust in public health experts also remained high throughout the pandemic, with trust in the major public health institution, the Finnish Institute for Health and Welfare even increasing (Jallinoja et al. 2021; Jallinoja et al. 2025). Health experts and health care professionals were the most trusted sources of COVID-19 information, and this trust continued to grow during the pandemic (Malinen & Koivula 2024). Institutional trust was also associated with compliance with public health recommendations (Kestilä-Kekkonen et al. 2022) and was reflected in high vaccination uptake (Borin et al. 2024).

At the same time, a smaller proportion of Finns expressed distrust towards public health institutions and their vaccination information, indicating increasingly polarised attitudes (Jallinoja et al. 2025). For example, 22–31% of Finns expressed some mistrust towards government COVID-19 measures, with 9–14% reporting strong suspicion (Jallinoja et al. 2021). Although only a small minority trusted pandemic-related information from social media influencers, such trust correlated with more negative attitudes towards COVID-19 vaccines (Malinen & Koivula 2024).

While opinion polarisation during the COVID-19 pandemic is well documented (e.g. Allcott et al. 2020; Block et al. 2022; Freira et al. 2021), the dynamics of affective polarisation remain underexplored. Existing studies have primarily focused on two-party systems and relied heavily on survey-based approaches (e.g. Allcott et al. 2020; Block et al. 2022; Freira et al. 2021; Pennycook et al. 2022), with limited attention to multiparty, high-trust contexts (Reiljan & Ryan 2021).

The politicisation of public health – where issues traditionally regarded as scientific or neutral become entangled with political ideologies or identities – was clearly visible during the COVID-19 pandemic. In Finland, this was reflected in a pattern where supporters of the right-wing populist Finns Party were more likely than supporters of other major parties to express scepticism towards public health authorities (Jallinoja et al. 2025). Voting intention for the Finns Party emerged as a significant predictor of institutional distrust, aligning with broader patterns of science scepticism among the party's base. Comparable patterns were observed elsewhere, for instance, in the United States, where political conservatism strongly correlated with distrust in science during the pandemic (Latkin et al. 2022).

Criticism and resistance to pandemic management intensified civic distrust, often manifesting as counter-democratic, populist forms of political engagement (Borin et al. 2024). It is useful to distinguish between *mistrust*—a cautious scepticism—and *distrust*—a deeper, more enduring belief in institutional untrustworthiness (Jennings et al. 2021; Lenard 2008; Sztompka 1999: 26). During the COVID-19 pandemic, both were associated with lower compliance with health guidelines, stronger belief in conspiracy theories, and increased reliance on social media over official sources (Schmuck & Harff 2023).

3. Conspiracy, conspirituality and authenticity in the alternative health scene

Conspiracy theories gained heightened visibility in mainstream media during the COVID-19 pandemic, although their gradual shift towards the mainstream predates it (Knight 2000: 6; Fenster 2008). Often pathologized or framed as cultural coping mechanisms in late modernity (e.g. Knight 2000; see Harambam 2020), conspiracy thinking during the pandemic can be more accurately understood as an intensified expression of distrust towards elites and experts (see Darius and Urquhart 2021).

Globally, conspiracy theories during the pandemic questioned the very existence of the virus, the motives behind vaccine development, and the legitimacy of pandemic governance. Prominent narratives included claims that COVID-19 was a bioweapon leaked from a laboratory or that the pandemic was deliberately orchestrated by actors such as the Gates Foundation to reduce the global population. Others alleged that a secret global government – sometimes referred to as the “New World Order” – intended to use vaccination to implant microchips, control individuals, and erode civil liberties. The pandemic was also framed as a plot by a small economic elite to trigger “The Great Reset”, involving global economic collapse and the abolition of private property. In the United States, widely circulated claims portrayed the pandemic as a “deep state” or Democrat hoax aimed at undermining Donald Trump’s 2020 presidential campaign, while QAnon narratives suggested Trump was using the pandemic as cover to arrest members of the “deep state”. (Butter & Knight 2023; Frejborg & Pettersson 2023.) These and similar theories gained traction within conspiracy circles in the Nordic countries as well (Dyrendal 2023).

Distinguishing between accurate knowledge and misinformation is often complex and context-dependent (Harambam 2021). This complexity became particularly pronounced during the pandemic, a period defined by the rapid evolution of scientific understanding. In such a volatile epistemic environment, societal, economic, and political critiques of pandemic management were frequently dismissed as conspiratorial disinformation, effectively excluding them from legitimate political discourse (Harambam & Voss 2023). While conspiracy theories are commonly framed as expressions of distrust, they also signal deeper struggles over the production and authority of knowledge. During the pandemic, these struggles were not merely epistemic but inherently political, materializing in everyday political practices and debates – especially within social media spaces (Harambam & Voss 2023).

While conspiracy thinking became particularly prominent in alternative health circles during the pandemic, these spaces also cultivate ideals of spiritual growth and authenticity. The convergence of conspiracy narratives and new spiritualities has been conceptualized as *conspirituality* (Ward & Voas 2011). In the Nordic context, this phenomenon has historical roots in esoterism and, more recently, in yoga and alternative health cultures (e.g. Dyrendal 2015; Dyrendal & Tøllefsen 2022). This emphasis on authenticity is unsurprising in late modernity, where individualism, self-expression, and emotional fulfilment increasingly take precedence over conformity and deference to authority (Inglehart 2018: 39, 84; Reckwitz 2023: 69). As countercultural values have moved closer to the mainstream, expressions of uniqueness and authenticity have become forms of social and economic capital – especially within the dynamics of ‘attention economy’.

4. Data and methods

This study is a part of *Mediating Expertise and Scientific Knowledge in Public Debates on Health* research consortium (MEX) funded by the Academy of Finland, Grant no: 320279, exploring debates on healthy nutrition in the mainstream media, counter-media, and social media.

We chose the studied influencers so that they fit the following criteria: 1) their content was in Finnish and related to food and nutrition 2) they contradicted official expert recommendations on food and nutrition, and 3) they had a following of at least a thousand people. Several Finnish influencers fit these criteria, but to facilitate in-depth qualitative analysis we limited the number of influencers to four. To analyse the diversity of the alternative health scene, we chose the influencers so that they represented various alternative diets or views on nutrition. For instance, we only chose one influencer representing ketogenic diet, although several would have fit the criteria. With the focus on the politicization of health and the contestation public health expertise, we chose influencers who, when talking about their background, did not mention having formal qualifications in the fields of nutrition, medicine, or public health. Based on follower numbers, the influencers we studied could be classified as micro-influencers (1,000–10,000 followers; influencer C) or macro-influencers (10,000–100,000 followers; influencers A, B and D) (Oliveira et al. 2019).

Influencer A specialised in superfoods and unprocessed food. Initially gaining visibility through his blog, he expanded into coaching and public lectures, collaborating with health food brands, and published two books.

Influencer B became a wellness coach after discovering that a ketogenic diet improved her health. She launched an online coaching business that grew in popularity.

Influencer C promoted a plant-based diet through coaching, recipe books, and online courses. Her content combined dietary information with spiritual themes – initially New Age spirituality and later Christianity.

Influencer D was a popular blogger who criticised official recommendations related to food additives and chemicals. Her work blended journalistic content on chemicals in foods and other products with advertorials and brand collaborations.

We analysed selected social media content from the influencers across three study periods. The first period (January 2020 – June 2020) captured the onset of the pandemic. The second period (October – December 2021) coincided with intense public discussion about COVID-19 vaccines and the introduction of the “COVID pass” (proof of vaccination or negative test) in Finland. The third period (March – April 2025) was included to assess the durability of the changes observed in the influencers’ content.² The extended intervals between data collection points enabled us to identify shifts over time. We examined content on one or two social media platforms where each influencer was most active and incorporated additional relevant materials (see Table 1). In addition, influencer D participated in an interview in May 2020. The other influencers declined interviews, which may reflect mistrust towards institutionalised science and the polarisation of opinions during the pandemic.

We reviewed all content posted by the influencers. For the first two study periods, we selected only content related to nutrition, immunity, COVID-19 and expertise for further analysis (see table 1). Posts that consisted of service advertisements, inspirational quotes, or personal life updates unrelated to the study topic were excluded. In contrast, for the third study period – designed to capture the post-pandemic evolution of content – we analysed all the published material to assess broader shifts in themes and tone.

Table 1. Research materials.

Influencer	Facebook			Instagram			Additional materials
	2020	2021	2025	2020	2021	2025	
A	44	159	153				Mainstream media interviews 2009-2019 (N=9) Podcast interviews in 2022, 2024 Book published in 2019
B		9		45	8	11	YouTube-videos 2017-2020 (N=29) Free webinar on ketogenic diet 2020 Mainstream media interviews 2014-2019 (N=6) Podcast interview 2022
C	23	10	3		4		Free online course on plant-based diet (2020)
D	67	8	6		5	19	Mainstream media interviews 2011-2020 (N=6) Book published in 2011 Research interview

Number of analysed posts related to nutrition, immunity, COVID-19 and expertise per social media platform in the first (2020, 6 months), second (2021, 3 months) and third (2025, 2 months) study periods, and other materials used in the study. For the first and second study periods, only posts related to nutrition, immunity, COVID-19 and expertise are reported in this table.

The first author conducted digital ethnographic observation of the influencers’ social media content, reading through all the content (including text, videos and photos) and other materials and taking detailed

² The frames of the study periods were somewhat flexible: if the influencer experienced a significant event near these time frames, we considered content related to it in the analysis. For example, influencer D changed her stance on COVID-19 vaccination and decided to get vaccinated, which sparked intense reactions within the alternative health scene. Although this occurred a few weeks before the second study period in 2021, we included related posts in the study materials.

notes of content related to nutrition, immunity, COVID-19, science and expertise. Comments on social media posts were also documented. This process resulted in 115 pages of field notes. During the first study period, observation was conducted in real time. Content from the second study period was collected and analysed retrospectively in 2023, while materials for the third period were gathered in June 2025. Consequently, some posts, particularly from 2021, may have been deleted by influencers before data collection. Although post deletion is possible even shortly after publication, this delay represents a limitation of the analysis. To mitigate this, we sourced content from multiple platforms wherever feasible. For example, in 2021, influencer B cross-posted identical content on Instagram and Facebook; while some Instagram posts were later removed, we were able to retrieve them from Facebook.

The present study does not fall under the scope of the Finnish Medical Research Act and Decree. Furthermore, Tampere University does not require ethics board review for research that does not involve medical procedures or research methods. Consequently, an ethical review was deemed unlikely to provide substantial added value regarding the ethicality of this research. While public content can be used as research data without consent (e.g. Wilkinson & Thelwall 2011), and only publicly available material was analysed in this study, certain ethical concerns remain. Although the influencers' texts and identities are public, we have chosen not to disclose the names. In addition, all quoted material has been translated into English and edited to prevent retrieval through online search engines. Nevertheless, we acknowledge that our description may render the influencers recognisable to some readers.

Despite the ethical challenges, social media influencers play a significant role in shaping public perceptions of health recommendations, making the study of their work essential. In this research, influencers are approached as representatives of the Finnish alternative health scene, with the focus placed on broader cultural dynamics rather than individual personalities. Their position is inherently ambiguous: while they function as micro-celebrities within alternative health communities, they are often discredited in mainstream public discourse. Consequently, power relations between influencers and researchers are complex and far from clear-cut.

The materials were analysed using an abductive qualitative approach (Timmermans & Tavory 2012), in which themes were formed both from the data, and using the theoretical framework. After multiple readings of the field notes, the data were coded in NVivo into seven thematic categories: (1) healing narratives, (2) influencer work, (3) COVID-19, (4) knowledge and evidence, (5) public health institutions, government, and healthcare, (6) political action, and (7) conspiracy theories. Particular attention was given to themes 1 and 5–7, which were further interpreted within the pandemic context and in relation to the politicisation and polarisation of health attitudes. In the second phase of the analysis, we traced trajectories and transitions in influencers' content creation, which are outlined in the first four sections of the results. Finally, we compared the first two study periods with the post-pandemic sample to evaluate whether the observed changes persisted over time.

5. Results

5.1 *Personal healing narratives*

None of the studied influencers had formal training in nutrition or healthcare, yet all shared personal narratives about how they became interested in these topics. We begin with these pre-pandemic stories because they served as a foundation for their later contestation of public health expertise during the pandemic.

The narratives – developed over several years of content creating – followed a storyline in which personal health problems prompted a search for knowledge on health and nutrition. A recurring theme was the perceptions that biomedicine had failed to provide adequate solutions, leading them to explore complementary and alternative medicine (CAM) therapies, though not necessarily to abandon biomedical care altogether.

Influencer A reported suffering from autoimmune diseases, which led him to study nutrition independently and modify his diet. Influencer B struggled with crippling stomach pains, prompting her to experiment with various dietary approaches. Influencer C suffered from chronic symptoms related to skin, digestion and hormonal balance. Influencer D was diagnosed with stress-related IBS but found symptom relief by avoiding certain foods.

These narratives culminated in the discovery of a diet – ketogenic, plant-based, or a personalized diet – that improved their wellbeing. Through these experiences, the influencers began to question official nutrition guidelines. Finding healing practices without biomedical help inspired them to start sharing information about diet, nutrition and health, either through blogs (A and D) or coaching businesses (B and C). These personal healing narratives functioned as key mechanisms for establishing credibility as lay experts capable of offering health advice to others.

The influencers often referred to their healing narratives to legitimise views of theirs that challenged public health expertise:

“Many times, I have faced impossible health challenges. A few times I even thought I would die (...) In those times, getting access to strengthening, empowering information has helped me the most. I will say this frankly: I’ve never found anything very empowering from official sources. You know, the kind of information that would help your own power glow and flourish.” (A, 29.3.2020)

As this quote illustrates, healing narratives provided the foundation upon which the influencers constructed mistrust and distrust towards public health institutions during the pandemic. These personal narratives fostered trust through a sense of intimacy with followers – many of whom were likely seeking ways to improve their health. By sharing their own experiences, influencers ensured that their content resonated with audiences throughout the pandemic and across the subsequent shifts in their messaging.

5.2 Early pandemic: shared goals and lay immunologies

COVID-19 first appeared in the influencers’ content between 6 and 16 March, 2020. Initial reactions were moderate. Influencer B took the emerging virus quite seriously, noting that although she had resisted joining the media’s fearmongering bandwagon, the escalating “*corona situation*” was beginning to feel alarming (B, 12.3.2020). She kept her children home from school and self-quarantined ahead of official recommendations. In contrast, the other influencers did not express concern about the virus at this stage.

Notably, the influencers’ relationship with public health expertise at the onset of the pandemic appeared relatively neutral and toned down compared to their usual, stark criticism, for which influencers A and B in particular were known for. During the early pandemic (March–May 2020), the influencers expressed willingness to cooperate with public health to “flatten the curve” of COVID-19 infections. With the exception of influencer A, they endorsed official recommendations for social distancing. Although their content continued to emphasize immunity strengthening – a theme absent from the official agenda – they shared the goal of mitigating the pandemic alongside public health institutions and the government: “*It is really important now to keep up with quarantine but also to work on your immune system*” (C, 24.3.2020). In late March, 2020, the Finnish government engaged social media influencers in sharing information on COVID-19, and influencer D was involved in this collaboration.

While aligning with some of the goals of public health experts, the influencers promoted their own approaches, often blending official guidance with alternative practices, such as preventing COVID-19 infection with nutrition and supplements. For instance, influencer B shared an extensive list that included recommendations from public health authorities – such as social distancing and handwashing – alongside advice like taking vitamin D, getting sun exposure, using sauna, exercising, eating animal products, managing stress and avoiding mainstream media (B 13.3.2020). Similarly, within four days, influencer D shared both an online “Flu guide” by a Finnish biohacker group and a press release from the Finnish Institute of Health and Welfare on COVID-19 prevention.

By aligning themselves with the overarching goals of official pandemic management, the influencers were able to intertwine their alternative lay expertise with the discourse of institutional health governance (see Au & Eyal 2021 on the entangling lay and expert discourses during COVID-19). Their content reflected a form of *lay immunology* (Enticott 2003; Nurmi 2021), which gained prominence in the early pandemic. Within this framework, strengthening immunity was understood as a matter of optimisation of nutrition, supplement use, exercise, outdoor exposure, and maintaining a positive mindset – practices positioned as essential for confronting the novel virus. Drawing on alternative health expertise cultivated through personal healing narratives, influencers interpreted the pandemic through their own lens and offered advice that resonated with their following.

Simultaneously, these lay immunologies conveyed a subtle mistrust (though not yet distrust) towards public health expertise and its recommendations. For instance, influencers A and D challenged statements from public health authorities that advised against using vitamins to alleviate COVID-19 symptoms³:

“Many health-conscious individuals wonder why sufficiently high doses of vitamins C and D are not officially recommended as a treatment for COVID” (D, 14.4.2020)

“I read in the news that vitamin C doesn’t work [against COVID-19 infection] in Finland, even though it works in other countries. So now is the time for us to share ideas that can help people help themselves and others. Optimising your own immunity right now is a great service to the whole healthcare system. (A, 29.3.2020)

In the latter quote, influencer A offered a critique of expert recommendations, ironically noting that vitamins do not work in Finland if public health authorities say so. Yet, he ultimately returned to the shared goal of safeguarding healthcare system capacity. Importantly, at this stage, he did not reject the necessity of taking certain precautions against the virus, both at the individual and institutional levels.

5.3 Late pandemic: politicisation and growing distrust

During the second study period in late 2021, we observed a shift from lay immunology towards heightened politicisation and increasing distrust in the content of three influencers. Influencers A and B, along with C to a lesser extent, began prioritising themes of freedom and individual rights over earlier emphasis of immunity and nutrition. Influencer A’s posts, in particular, focused on opposing COVID-19 restrictions, mask mandates, vaccines, and especially the COVID pass (proof of vaccination or recent negative COVID-19 test). He repeatedly argued that the COVID pass, introduced in Finland on October 16, 2021, infringed upon individual freedoms and violated both the Finnish constitution and human rights:

“We have forgotten what for a short period in history made the Western countries such a free and secure place to live; for a while, people had almost equal opportunities for happiness and success. We had freedom of speech, equality, personal integrity, privacy, domestic privacy, freedom of assembly, freedom to engage in commercial activities, and human rights. Then we gave it all away because we were more interested in TV shows.” (A, 17.10.2021)

Influencers A, B and C encouraged their followers to choose sides on the issues of pandemic policies and vaccination. We interpret this as indicative of politicisation and affective, opinion-driven polarisation surrounding health issues that emerged in Finland (Kestilä-Kekkonen et al. 2022) and other countries (e.g. Block et al. 2022; Pennycook et al. 2022).

Calls to action often accompanied the political criticism voiced by influencers A and B. They urged their followers to resist the COVID pass, which they framed as the greatest threat to citizens’ freedom since World War II (A, 8.10.2021). Their appeals included boycotting businesses that implemented the pass, joining demonstrations against it, and signing petitions and citizens’ legal initiatives:

³ Although the potential effects of vitamins C and D in the prevention and treatment of COVID-19 were discussed in the media in 2020, public health experts remained cautious in recommending high doses of these vitamins, as there was no conclusive evidence to support their efficacy (Finnish Institute for Health and Welfare 2020, Knuuti 2020/2021).

“I still plan to go to restaurants, concerts and events. But not to ones that demand this RIDICULOUS health pass that has nothing to do with our health. You do the same! Let’s show our support for the businesses that don’t discriminate against anyone.” (B, 15.10.2021)

“It’s time to sue all actors that participate in this illegal discrimination [the COVID pass]. If a doorman takes part in illegal discrimination, take their name, take their picture, post their name and picture on social media, and ask for their contact info so your community’s lawyer can be in touch with them.” (A, 17.10.2021)

Political action thus ranged from contacting policymakers to engaging in civil disobedience, as well as expressing resistance through individual health choices, such as refusing vaccination.

Influencer A emerged as a prominent figure in the opposition to COVID-19 measures, positioning himself as a vocal critic of both the Finnish government and the European Union. His resistance shifted from a framework rooted in alternative lay immunology to one grounded in constitutional and human rights discourse. He argued that the derogation laws enacted during the pandemic constituted violations of these rights. In his content, health became a more distant ideal, primarily referenced through discussions of COVID-19 vaccine side-effects. These side-effects were framed as a human rights issue, particularly in cases where individuals coerced into vaccination reportedly experienced long-term adverse effects.

Influencer B likewise framed her opposition to pandemic measures as a political stance against perceived threats to individual freedom: “*Nothing is more important to me than defending the right to choose and the right to be free*” (B, 27.10.2021). Her critique centred on COVID-vaccines and vaccine mandates. She expressed a preference for the possibility of illness and recovery (“*trusting my own immune system*”) over “*reluctantly putting something in my body that carries risks and the possibility of crippling side-effects*”. Furthermore, she emphasised that she would not compromise her principles merely to “*eat, dance, sing or travel*”, asserting: “*This has nothing to do with my health. We were all born free, and no one can take that away from me, even if that means I’ll be left out of society*” (B, 21.11.2021).

Although influencer C posted less frequently during the later stage of the pandemic, she articulated resistance to the perceived pressure to get vaccinated against COVID-19. She attributed this pressure to public health authorities and mainstream media, stating: “*The official information (...) only aims to get every one of us to take the shots, not for us to weigh the pros and cons or to give us the whole truth.*” (C, 9.1.2022). In similar terms, influencers A and B voiced distrust towards government and public health actors, questioning their motives in health communication and pandemic management.

In contrast to the other influencers, influencer D positioned herself as a critical collaborator rather than an outright opponent of public health authorities. In her interview, she described a continuous balancing act, seeking to build bridges between “mainstream” and “alternative” health communities. Despite this mediating stance, she retained a critical perspective, for example regarding face masks and the chemicals they might contain. Overall, her content largely aligned with official pandemic recommendations, with notable exceptions concerning dietary supplements and COVID-19 vaccines, towards which she initially expressed considerable hesitation.

Over the course of the pandemic, influencer D’s stance on vaccination shifted. Initially expressing concerns about both vaccine side effects and the risks of COVID-19 infection, she ultimately decided to get vaccinated. When she disclosed this on social media, she faced significant backlash, including targeted criticism from another alternative health influencer and their followers. Some members of her own audience accused her of betrayal or inconsistency – particularly given her earlier advocacy for “chemical-free” lifestyle and her prior criticism of H1N1-pandemic vaccines. This experience prompted influencer D to publicly denounce “anti-vaccine content” on social media. She urged her followers to critically examine “*the background and links*” of those opposing COVID-19 vaccines, asking: “*Who pays for the ‘speaker of truth’ to dedicate time to their mission? Be critical, also towards those who criticise*” (D, 25.9.2021).

5.4 Conspiracy thinking

As the pandemic unfolded, the influencers' content increasingly reflected a deepening distrust and the politicisation of COVID-19. This shift manifested not only in calls to action but also through the circulation of conspiracy narratives surrounding the pandemic.

Three influencers (A, B and C) shared or alluded to conspiracy theories in their content, though the scope and intensity varied. Influencer B only hinted that pandemic restrictions served as a means to curtail individual freedoms. In contrast, influencer A actively disseminated well-established COVID-19 conspiracy narratives. As early as mid-March 2020, he shared a YouTube video claiming the virus had been deliberately engineered to trigger a global pandemic (A, 15.3.2020). By the second study period in 2021, his references to conspiracy theories - such as "The New World Order" or "The Great Reset" - had become frequent, appearing several times a week. He employed these narratives to frame pandemic restrictions and vaccine mandates as "irrational" and coercive. According to him, pandemic management was part of a broader strategy to increase control of individuals, beginning with COVID-19 vaccination: *"In all likelihood, next year you won't be able to go to work, school or the grocery store, and you won't get social benefits if you haven't taken the fifth jab"* (A, 20.10.2021).

Influencer C made only one explicit reference to COVID-19 conspiracy theories during the very late stages of the pandemic. However, her earlier posts had already signalled distrust towards government authorities, suggesting that officials were *"not telling the whole truth"*. In a blog post published in January 2022, she went further, proposing that the pandemic was intentional. Echoing common COVID-19 conspiracy narratives, she argued that certain actors were exploiting the pandemic to exert control over individuals. According to her, this was so extensive that democracy itself was at risk: *"they have now managed to spread this illness widely. (...) I'm motivated by a desire to make people see how wrongly we are being led now, so that we will not be driven from democracy to totalitarianism."* (C, 9.1.2022)

Influencer C framed her criticism of pandemic recommendations in explicitly political terms, presenting it as a defence of democracy. Her argument aligns with cultural theorists' interpretation of conspiracy thinking and conspiracy theories as dissenting forms of political knowledge - responses to rapidly changing societal conditions and instruments of political contestation (Knight 2000; Harambam 2020). When conventional avenues for political action appear inaccessible or ineffective - as was seemingly the case for many alternative health influencers and their followers during the pandemic - conspiracy narratives can serve as a means to express resistance. In our material, we interpret conspiracy thinking as a manifestation of the politicisation of health and the alternative health sphere under unprecedented pandemic conditions. Conspiracy narratives were frequently accompanied by politicisation, whether in abstract forms of raising awareness or through concrete calls to action.

Alongside growing distrust towards state authorities and pandemic measures, the influencers reported feeling pressured to align with official pandemic management. They described facing criticism and experiencing restrictions of their content and social media accounts. Such experiences likely reinforced a perception of being controlled, or even persecuted, under the guise of pandemic governance. For example, one of influencer A's social media accounts, which had 17,000 followers at the time, was closed by the platform in late 2021. He interpreted this as evidence of *"tightening censorship"* (A, 28.10.2021).

While many followers supported the influencers' views, including those aligned with conspiracy narratives, their comment sections also became sites of debate - typically among followers, as the influencers themselves rarely engaged. Although such controversial content may have amplified their visibility during the pandemic (see e.g. Valaskivi 2022), it also provoked backlash and unwanted labels. These reactions came not only from public health authorities and their supporters but also from within the alternative health community. Influencers reported losing followers, collaborations, and income as a consequence of criticising COVID-19 policies. For instance, in March 2020, influencer A noted that half of his income derived from product design partnerships with health brands; six months later, he had lost

at least one major collaboration due to his controversial content (for similar findings in Denmark, see Mortensen & Kristensen 2023). Influencer B likewise reflected on the risks associated with publicly opposing pandemic measures:

“I have been told I’m ruining my career and that I could no longer be taken seriously in matters relating to diet because I’m a “conspiracy lunatic” (...) I want to emphasise that there’s no personal benefit for me in talking about COVID, quite the contrary. (...) If I lose something because I speak authentically from my own truth, so be it.” (B, 27.10.2021)

Reflecting the conspiratorial tendencies within the alternative health scene, influencer B underscored her commitment to “speaking the truth” regardless of potential consequences. Posts incorporating conspiracy theories and expressions of radical distrust towards government authorities elicited mixed reactions among her followers.

5.5 After the Pandemic: continuing political criticism or return to business as usual

The third study period, spring 2025, marked five years since the onset of the pandemic and two years since the WHO declared its end in May, 2023. The influencers had continued producing their content to varying degrees. By spring, 2025, influencers B, C, and D made no mention of COVID-19 in any of their posts, while influencer A referred to it only a few times.

Influencer A maintained the controversial trajectory of political criticism intertwined with conspiracy thinking that he had adopted during the pandemic. He remained highly active across four social media platforms - Facebook, Instagram, X, and TikTok – posting frequently⁴⁴. The majority of his Facebook content (85 posts) focused on political topics, with a strong emphasis on celebrating Donald Trump’s second term in office. Additional themes included censorship and cancel culture, as well as the war in Ukraine, which he approached from a pro-Russian perspective, alongside continued criticism of Finnish politics and the European Union. Although pandemic-related conspiracy theories and pro-Russian war narratives are not inherently connected, they often appeal to similar audiences, particularly individuals who harbour distrust towards their national governments and public media institutions (Grygarová et al. 2025).

Influencer A continued to operate within a conspiratorial framework, asserting that “*information control agencies are hiding and distorting [truth and information] from us Finns*” (A, 11.3.2025). While he still shared conspiracy-related content, these narratives were now primarily tied to global politics rather than the pandemic. His posts frequently intertwined populist right-wing political views with conspiracy thinking. For instance, he circulated claims that global elites seek to control populations through science, mainstream media, and vaccines, alongside multiple posts alleging corruption of politicians and political elites. He amplified narratives portraying Ukraine as responsible for the 2022 escalation of war with Russia and accusing Ukraine of committing genocide against its Russian population. Health remained a marginal theme, appearing in only 23 of his 153 posts during this period, mostly in relation to supplements and vaccines.

Across all study periods, a consistent motif in his content was valorisation of authenticity and the courage to voice controversial views - often accompanied by allusions to conspiracy theories:

“Someone was wondering how “you don’t care about other people’s opinions; you say whatever you want.” In fact, I’m probably more sensitive than most. But the benefits of speaking out outweigh the disadvantages many times over, they always have. (...) I must take into account the spiritual joys and gifts: they are greater the more severely the world punishes me for my lack of self-censorship.” (A, 13.4.2025)

⁴⁴ We analysed the posts on Facebook, as in earlier study periods.

Influencer A thus continued to operate within the conspiritual framework, where conspiracy narratives merged with new spirituality and ideals of authenticity and truth-seeking, regardless of backlash. In a podcast interview in 2024, he acknowledged that his controversial content had led to professional isolation. Nevertheless, consistent with the authenticity ideal, he asserted that remaining silent would have been untenable, stating that it would have made him unhappy to “sell his soul” merely to preserve collaborations or affiliate marketing opportunities.

In contrast with influencer A, the other influencers had largely returned to their pre-pandemic content. Influencer B primarily shared health-related posts and promoted her coaching business. As before, many posts highlighted her personal healing journey, focusing on weight, nutrition, exercise, and overall health. However, her coaching had shifted from ketogenic and metabolic flexibility diets to a holistic model tailored for women in (peri)menopause. Notably, no political content appeared in her 2025 posts. Similarly, influencer C returned to her core theme of nutrition, though her activity was minimal during the third study period, with only two Facebook posts: one discussing the benefits of her plant-based diet, and another promoting an online course.

Influencer D’s content during the third period largely mirrored earlier periods, except for pandemic-related posts notably absent. She shared 19 posts focused on cosmetics and commercial collaborations, including promoting a new cosmetic brand launched by her startup and a curated collection for teenagers. Her content also featured domestic travel partnerships. Occasional political content persisted, primarily addressing environmental issues.

Overall, the other three influencers concentrated on topics aligned with their business ventures, with influencer D intermittently incorporating environmental political content consistent with her established profile. For influencers B and C, political engagement and conspiracy thinking appear to have been temporary deviations, likely driven by the heightened politicisation of health during the late pandemic period.

6. Conclusion

This study explored how four Finnish alternative health influencers contributed to the politicisation of COVID-19 knowledge, restrictions and recommendations. It identified two sociological dynamics that characterize these influencers and, more broadly, social media-driven narratives in late modernity.

The first dynamic concerns framing pandemic management decisions and the scientific and public health expertise behind them as inherently political. This framing fostered criticism, mistrust and distrust towards decision-makers and public health authorities and experts. The second dynamic reveals an entanglement of personal wellbeing, entrepreneurial activity and political activism in influencers’ content and activities. For three of the influencers, this convergence aligned with the concept of conspirituality, where “political cynicism is tempered with spiritual optimism” (Ward & Voas 2011). This conspirituality framing was strongly tied to ideals of truth and authenticity. The influencers often stressed being “true to oneself”, even under pressure to conform to mainstream norms, thereby legitimising perspectives that challenge those norms. Authenticity is also a key principle for influencers striving for trustworthiness and relatability on social media (Arnesson 2023).

These dynamics evolved over time. Influencers initially established lay expert status through pre-pandemic healing narratives. During the early pandemic, they introduced lay immunologies that challenged the mainstream medical understandings of COVID-19 and amplified mistrust in public health expertise. As the pandemic progressed, three influencers adopted overt political opposition and distrust of public health expertise, drawing on popular COVID-19 conspiracy narratives to articulate radical political distrust. Five years after the pandemic broke out, these influencers had largely moved beyond COVID-related content, continuing their activities in other domains.

These transformations in content were not uniform. Before and during the early pandemic, all four influencers shared a relatively similar stance, questioning public health recommendations on diet and

nutrition. However, during the second study period, two influencers (A, B) adopted increasingly radical positions opposing pandemic-related public health expertise, while one (C) maintained a more cautious approach, and another (D) shifted towards supporting official pandemic management. In the post-pandemic period, influencer A continued to disseminate radical political critique intertwined with conspiracy thinking, whereas the others returned to their coaching and wellness-oriented content.

Several factors shaped these shifts. While individualism has long been a core value in modernity, late modernity places heightened emphasis on “the ideals of subjective self-development, creativity, authenticity, and emotional fulfilment” contrasting with earlier forms that prioritised conformity to mass culture and rigid structures (Reckwitz 2023: 67–73). The four influencers examined here exemplify this culture of uniqueness and the associated struggles for recognition and visibility. At the same time, they operate within alternative health and conspiratorial cultures that valorise “speaking the truth” and performing authenticity.

Within the content of alternative health influencers, this cultural backdrop of individualism and authenticity intersects with populist post-truth narratives that were gaining traction even before the pandemic. Globally, these included discourses surrounding Brexit and Trump’s first term, while in Finland they coincided with the growing influence of the right-wing populist The Finns Party (Norris & Inglehart 2019). These trends amplified anti-establishment rhetoric and created fertile ground for scepticism towards expertise. Influencer A embraced this trajectory most fully, positioning himself as a figurehead of ‘alternative thinking’ on the issues ranging from COVID-19 to EU politics and the war in Ukraine – a role further reinforced by the Finnish mainstream media coverage of his content.

The pandemic also politicized individual health choices and health attitudes, intensifying affective opinion polarisation (Allcott et al. 2020; Jungkunz 2021). Surveys illustrate this polarisation: broad trust in public health authorities coexisted with a smaller segment questioning them (Jallinoja et al. 2025; Malinen & Koivula 2024). In Finland, even mainstream media adopted adversarial framings (Mäkinen 2023). Controversial topics – especially vaccines – guaranteed attention and visibility, proving profitable for influencers (Valaskivi 2022).

Prolonged pandemic restrictions, vaccination campaigns, and the introduction of the COVID-19 pass intensified civic frustration (Värtö 2025). Influencers who tapped into these sentiments with politicised and radical content gained significant traction, likely encouraging some audiences to adopt more extreme views – whether controversial or aligned with mainstream narratives. As the pandemic ended, urgency and frustration diminished, and media attention waned. Consequently, three influencers (B, C, and D) shifted away from COVID-related topics, while influencer A continued to focus on divisive political topics.

In the post-pandemic landscape, alternative health and conspiratorial cultures have redirected their attention to new themes. Yet, their influence during the crisis revealed their ability to mobilise political protest by channelling public discontent and distrust. Post-pandemic observation suggest that conspiracy theories and their advocates have not vanished. Instead, engagement with one conspiracy narrative often acts as a gateway to others, even when the topics are unrelated (Granados Samayoa et al. 2022).

The COVID-19 pandemic generated a volatile socio-political environment – one that is likely to recur in future health crises. Scholars have called for the need for stronger integration of social science into public health preparedness (e.g. Bardosh et al. 2020), particularly to understand how trust and polarisation influence compliance with health measures (Bargain & Aminjonov 2020). Our analysis contributes to this effort by providing a nuanced sociological account of alternative health influencers – key actors yet often overlooked in public discourse. Rather than vilifying or celebrating them, we advocate for public health strategies that foster dialogue and collaboration toward shared goals.

During the pandemic, alternative health communities exhibited both opinion diversity and polarization. Recognizing this heterogeneity is essential to avoid stigmatisation and marginalisation, as exclusion risks deepening polarisation and eroding institutional trust – even in high-trust Nordic societies. The COVID-19 experience underscores the importance of incorporating diverse voices into respectful public

deliberation (see e.g. Sverdljuk & Bruinsma 2024) and fostering openness to differing views and institutional critique under conditions of uncertainty.

References

- Allcott H, Boxell L, Conway J, Gentzkow M, Thaler M and Yang D (2020). Polarization and public health: Partisan differences in social distancing during the coronavirus pandemic. *Journal of Public Economics*, 191: 104254. <https://doi.org/10.1016/j.jpubeco.2020.104254>
- Arnesson J (2023). Influencers as ideological intermediaries: promotional politics and authenticity labour in influencer collaborations. *Media, Culture & Society*, 45(3): 528–544. <https://doi.org/10.1177/01634437221117505>
- Au L and Eyal G (2021). Whose Advice is Credible? Claiming Lay Expertise in a Covid-19 Online Community. *Qualitative Sociology*, 45(1) :31–61. <https://doi.org/10.1007/S11133-021-09492-1>
- Baker S A (2022). Alt. Health Influencers: how wellness culture and web culture have been weaponised to promote conspiracy theories and far-right extremism during the COVID-19 pandemic. *European Journal of Cultural Studies*, 25(1): 3–24. <https://doi.org/10.1177/13675494211062623>
- Bardosh K L, de Vries D H, Abramowitz S, Thorlie A, Cremers L, Kinsman J and Stellmach D (2020). Integrating the social sciences in epidemic preparedness and response: A strategic framework to strengthen capacities and improve Global Health security. *Global Health*, 16: 120. <https://doi.org/10.1186/s12992-020-00652-6>
- Bargain O and Aminjonov U (2020). Trust and compliance to public health policies in times of COVID-19. *Journal of Public Economics*, 192 : 104316. <https://doi.org/10.1016/j.jpubeco.2020.104316>
- Block R, Burnham M, Kahn K, Peng R, Seeman J and Seto C (2022). Perceived risk, political polarization, and the willingness to follow COVID-19 mitigation guidelines. *Social Science & Medicine*, 305: 115091. <https://doi.org/10.1016/j.socscimed.2022.115091>
- Bond B J (2016). Following your “friend”: Social media and the strength of adolescents' parasocial relationships with media personae. *Cyberpsychology, Behavior, and Social Networking*, 19(11) : 656–660. <https://doi.org/10.1089/cyber.2016.0355>
- Borin L, Hammarlin M-M, Kokkinakis D and Miegel F (2024). Introduction: Vaccine hesitancy and the COVID-19 crisis in the Nordic countries. In: Borin L, Hammarlin M-M, Kokkinakis D and Miegel F (eds.) *Vaccine Hesitancy in the Nordic Countries: Trust and Distrust During the COVID-19 Pandemic*. Routledge, pp. 109–124. <https://doi.org/10.4324/9781003305859>
- Butter M and Knight P (eds.) (2023). *Covid Conspiracy Theories in Global Perspective*. Routledge. <https://doi.org/10.4324/9781003330769>
- Darius P and Urquhart M (2021). Disinformed social movements: A large-scale mapping of conspiracy narratives as online harms during the COVID-19 pandemic. *Online Social Networks and Media*, 26: 100174. <https://doi.org/10.1016/J.OSNEM.2021.100174>
- Dow B J, Johnson A L, Wang C S, Whitson J and Menon T (2021). The COVID-19 pandemic and the search for structure: Social media and conspiracy theories. *Social and Personality Psychology Compass*, 15(9): e12636. <https://doi.org/10.1111/spc3.12636>
- Dyrendal A (2015). Norwegian ‘Conspiratoriality’: A Brief Sketch. In Lewis, J R (ed.): *Handbook of Nordic New Religions*. BRILL, Boston. pp. 268–290.
- Dyrendal A and Tøllefsen I B (2022). Conspiracy Theory, Altered States, and Alternative Community. Conspiracy Beliefs in a Sample of Nordic Yoga-Practitioners. In Piraino, F, Pasi, M, & Asprem, E (Eds.): *Religious Dimensions of Conspiracy Theories: Comparing and Connecting Old and New Trends*. London: Routledge. Pp. 165–184.
- Dyrendal A (2023). Covid, Conspiracy Theories, and the Nordic Countries. In: Butter M and Knight P (eds.) (2023) *Covid Conspiracy Theories in Global Perspective*. Routledge. <https://doi.org/10.4324/9781003330769>
- Enticott G (2003). Lay Immunology, Local Foods and Rural Identity: Defending Unpasteurised Milk in England. *Sociologia Ruralis*, 43(3): 257–270. <https://doi.org/10.1111/1467-9523.00244>
- Fenster M (2008). *Conspiracy theories: secrecy and power in American culture*. Minneapolis: University of Minnesota Press.
- Finnish Institute for Health and Welfare (2020). *D-vitamiini koronataudin ehkäisyssä ja hoidossa – mitä tiedämme vaikutuksista*. [Vitamin D in the prevention and treatment of COVID – what do we know about the effects.] Blog post November 24, 2020. <https://blogi.thl.fi/d-vitamiini-koronataudin-ehkaisyssa-ja-hoidossa-mita-tiedamme-vaikutuksista/> Visited June 10, 2025.
- Freira L, Sartorio M, Boruchowicz C, Lopez Boo F and Navajas J (2021). The interplay between partisanship, forecasted COVID-19 deaths, and support for preventive policies. *Humanit Soc Sci Commun*, 8: 192. <https://doi.org/10.1057/s41599-021-00870-2>
- Frejborg I and Pettersson K (2023). Red-pillled mama bears and enlightened power goddesses: Discursive constructions of feminine identities in a conspiracy theory space. *British Journal of Social Psychology*, 63: 1037–1052. <https://doi.org/10.1111/BJSO.12717>

- Granados Samayoa J A, Moore C A, Ruisch B C, Boggs S T, Ladanyi J T, Fazio R H (2022). A gateway conspiracy? Belief in COVID-19 conspiracy theories prospectively predicts greater conspiracist ideation. *PLoS ONE*, 17(10): e0275502. <https://doi.org/10.1371/journal.pone.0275502>
- Grygarová D, Havlík M, Adámek P, Horáček J, Juričková V, Hlinka J and Kesner L (2025). Beliefs in Misinformation About COVID-19 and the Russian Invasion of Ukraine Are Linked: Evidence From a Nationally Representative Survey Study. *JMIR Infodemiology*, 5(1): e62913. doi: 10.2196/62913
- Harambam J (2020). *Contemporary conspiracy culture: truth and knowledge in an era of epistemic instability*. New York and London: Routledge.
- Harambam J (2021). Against modernist illusions: why we need more democratic and constructivist alternatives to debunking conspiracy theories. *Journal for Cultural Research*, 25(1): 104-122. <https://doi.org/10.1080/14797585.2021.1886424>
- Harambam J and Voss E (2023). The Corona Truth Wars: Epistemic Disputes and Societal Conflicts around a Pandemic—An Introduction to the Special Issue. *Minerva*, 61(3): 299-313. <https://doi.org/10.1007/s11024-023-09511-1>
- Iyengar S, Lelkes Y, Levendusky M, Malhotra N and Westwood S J (2019). The Origins and Consequences of Affective Polarization in the United States. *Annual Review of Political Science*, 22(1): 129-146. <https://doi.org/10.1146/annurev-polisci-051117-073034>
- Inglehart, R F (2018). *Cultural evolution. People's motivations are changing, and reshaping the world*. Cambridge: Cambridge University Press.
- Jallinoja P, Sivelä J and Väliaverronen, E (2021). Valtavirtaa ja vastavirtaa - koronanäkemykset yhteydessä halukkuutteen ottaa koronarokotus. *Duodecim* 137(19):2061-8.
- Jallinoja P, Vento E and Väliaverronen E (2025). Trust in scientific institutions and experts during the first two years of the COVID-19 pandemic in Finland. *Scandinavian Journal of Public Health*, 53(5):490-497. doi: 10.1177/14034948241289633
- Jennings W, Stoker G, Valgarðsson V, Devine D, and Gaskell, J (2021). How trust, mistrust and distrust shape the governance of the COVID-19 crisis. *Journal of European Public Policy*, 28(8): 1174–1196. <https://doi.org/10.1080/13501763.2021.1942151>
- Jungkunz S (2021). Political Polarization During the COVID-19 Pandemic. *Frontiers in Political Science*, 3:622512. <https://doi.org/10.3389/fpos.2021.622512>
- Kekkonen E, Koivula A and Tiihonen A (2022). When trust is not enough. A longitudinal analysis of political trust and political competence during the first wave of the COVID-19 pandemic in Finland. *European Political Science Review*, 14(3): 424-440. doi:10.1017/S1755773922000224
- Knight P (2000). *Conspiracy Culture: From the Kennedy Assassination to The X-files*. New York and London: Routledge.
- Knuuti J (2020). C-Vitamiini ja covid-19. Ajatuksia tieteestä ja terveydestä Blog. 4.10.2020, updated 16.2.2021 <https://juhaniknuuti.wordpress.com/2020/10/04/c-vitamiini-ja-covid-19-2/> Retrieved 18.6.2025
- Latkin C A, Dayton L, Moran M, Strickland J and Collins K (2022). Behavioral and psychosocial factors associated with COVID-19 skepticism in the United States. *Current Psychology*, 41:7918–7926. doi: 10.1007/s12144-020-01211-3
- Lenard P T (2008). Trust Your Compatriots, but Count Your Change: The Roles of Trust, Mistrust and Distrust in Democracy. *Political Studies*, 56(2): 312-332. <https://doi.org/10.1111/j.1467-9248.2007.00693.x>
- Malinen S and Koivula A (2024) Cognitive authorities of COVID-19 information: educational differences and outcomes of trust in health experts and social media influencers in Finland. *Information Research an International Electronic Journal*, 29(2): 71–91. <https://doi.org/10.47989/ir292713>
- Maloy A F and De Vynck G (2021). How wellness influencers are fueling the anti-vaccine movement. *The Washington Post*. <https://www.washingtonpost.com/technology/2021/09/12/wellness-influencers-vaccine-misinformation/>
- Mena P, Barbe D and Chan-Olmsted S (2020). Misinformation on Instagram: The Impact of Trusted Endorsements on Message Credibility. *Social Media + Society*, 6(2). <https://doi.org/10.1177/2056305120935102>
- Moran R, Swan A and Agajanian T (2024). Vaccine Misinformation for Profit: Conspiratorial Wellness Influencers and the Monetization of Alternative Health. *International Journal of Communication*, 18:23. <https://ijoc.org/index.php/ijoc/article/view/21128/4494>
- Mortensen M and Nørgaard Kristensen N (2023). At the Boundaries of Authority and Authoritarianism in the Welfare State: News Coverage of Alt. Health Influencers During the Covid-19 Pandemic. *Javnost - The Public*, 30(1): 35-50. <https://doi.org/10.1080/13183222.2023.2168442>
- Mäkinen M (2023). Kansalaisaktivistit vai pandemiankieltäjät? Vaihtoehtoiset äänet journalistisessa mediassa COVID-19-pandemian aikana. *Media & Viestintä*, 46(3): 51-67. <https://doi.org/10.23983/mv.137062>
- Norris P and Inglehart R (2019). *Cultural Backlash: Trump, Brexit, and authoritarian populism*. New York: Cambridge University Press.
- Nurmi J (2021). Building ‘natural’ immunities: Cultivation of human-microbe relations in vaccine-refusing families. In Brives C, Rest M and Sariola S. (eds) *With Microbes*, Manchester: Mattering Press. pp. 100–117.
- Oliveira M, Barbosa R and Sousa A (2019). The use of influencers in social media marketing. In Howlett R and Jain I (eds.), *Marketing and smart technologies* Springer. pp. 112–124.

- Pennycook G, McPhetres J, Bago B and Rand D G (2022). Beliefs About COVID-19 in Canada, the United Kingdom, and the United States: A Novel Test of Political Polarization and Motivated Reasoning. *Personality and Social Psychology Bulletin*, 48(5): 750-765. <https://doi.org/10.1177/01461672211023652>
- Reckwitz A (2023). The theory of society as a tool. In Reckwitz A and Rosa H (eds.) *Late modernity in crisis*, Hoboken: Wiley. pp. 9-94.
- Reiljan A and Ryan A (2021). Ideological Tripolarization, Partisan Tribalism and Institutional Trust: The Foundations of Affective Polarization in the Swedish Multiparty System. *Scandinavian Political Studies*, 44: 195-219. <https://doi.org/10.1111/1467-9477.12194>
- Riedl M, Schwemmer C, Ziewiecki S and Ross L M (2021). The rise of political influencers - perspectives on a trend towards meaningful content. *Frontiers in Communication*, 6: 752656. <https://doi.org/10.3389/fcomm.2021.752656>
- Schouten A P, Janssen L and Verspaget M (2020). Celebrity vs. influencer endorsements in advertising: The role of identification, credibility, and product-endorser fit. *International Journal of Advertising*, 39(2): 258-281. <https://doi.org/10.1080/02650487.2019.1634898>
- Schmuck D and Harff D (2024). Popular among distrustful youth? Social media influencers' communication about COVID-19 and young people's risk perceptions and vaccination intentions. *Health Communication*, 39(12): 2730-43. <https://doi.org/10.1080/10410236.2023.2286408>
- Sverdljuk J and Bruinsma B (2024). COVID-19 vaccine discussion on Twitter: Topics of controversy and generalised trust. In Borin L, Hammarlin M-M, Kokkinakis D and Miegel F (eds.). *Vaccine hesitancy in the Nordic countries: Trust and distrust during the COVID-19 pandemic*. London: Routledge.
- Sztompka P (1999). *Trust: A Sociological Theory*. Cambridge: Cambridge University Press.
- Timmermans S and Tavory I (2012). Theory Construction in Qualitative Research: From Grounded Theory to Abductive Analysis. *Sociological Theory*, 30(3): 167-186. <https://doi.org/10.1177/0735275112457914>
- Truman E (2022). Influencing Diet: Social Media, Micro-Celebrity, Food, and Health. In Elliott C and Greenberg J (eds.) *Communication and Health*. Singapore: Palgrave Macmillan.
- Valaskivi K (2022). Circulation of conspiracy theories in the attention factory. *Popular Communication*, 20(3): 162-177. <https://doi.org/10.1080/15405702.2022.2045996>
- Verbalyte M and Eigmüller M (2022). COVID-19 related social media use and attitudes towards pandemic control measures in Europe. *Culture, Practice & Europeanization*, 7(1): 37-67. <https://doi.org/10.5771/2566-7742-2022-1-37>
- Värttö M (2025). Citizens in Distress: A Case Study on Public Participation During the Covid-19 Pandemic in Finland. *Social Inclusion*, 13: 9040. <https://doi.org/10.17645/si.9040>
- Ward C and Voas D (2011). The Emergence of Conspiratoriness. *Journal of Contemporary Religion* 26(1):103-121. <https://doi.org/10.1080/13537903.2011.539846>
- Wilkinson D and Thelwall M (2011). Researching personal information on the public web: Methods and ethics. *Social Science Computer Review*, 29(4): 387-401. <https://doi.org/10.1177/0894439310378979>

Addictive and habitual cycles of social media use

Self-regulation and prosumption in everyday platform cultures

Lauren Steckles-Young

University of Sunderland, United Kingdom

✉ lauren.steckles-young@sunderland.ac.uk

Abstract

Ground in a critical realist framework, this article examines the habitual and addictive cycles through which social media engagement is produced, sustained, and transformed. Drawing on qualitative interviews with 22 social media users, the study explores how participants experienced and negotiated their relationships with social media across roles as consumers, producers, and prosumers of content. Findings reveal that engagement is shaped not only by individual motivations but also by the interaction of algorithmic recommendation systems, platform business models, visibility cultures, and influencer economies that encourage ongoing participation. Through retroductive analysis, two conceptual models - the *habitual cycle* and *addictive cycle* of social media use - are developed to explain movement between routine and compulsive forms of engagement. The models demonstrate that users shift between these modes under changing social, cultural, and platform conditions rather than occupying fixed categories of either habitual or addictive use. The article further shows how experiences commonly described as addiction emerge from underlying structural and cultural mechanisms that encourage continual engagement whilst simultaneously individualising responsibility for its regulation. It argues that understanding social media harms requires attention to the relationship between user agency and platform structures, shifting analysis beyond individual behavioural explanations towards broader questions of platform governance, prosumption, and social harm.

Keywords: social media; critical realism; prosumption; platform governance; algorithmic culture; self-regulation; social harm

1. Introduction

Social media use has become embedded within everyday life, shaping how people access information, maintain relationships, engage with communities, and represent themselves online. Alongside the expansion of social media use has been growing concern regarding the effects of prolonged engagement

with platform environments, particularly in relation to wellbeing, self-perception, social comparison, and social connection (D'Arienzo *et al.*, 2019; Ford *et al.*, 2019; Hou *et al.*, 2019; Tullett-Prado *et al.*, 2023). At the same time, social media platforms continue to function as important spaces for communication, identity construction, validation, and belonging (Bishop, 2020; 2025; Dhingra & Parashar, 2022; Williams & Burnap, 2016; Toma & Hancock, 2013). The coexistence of benefits and harms has generated increasing academic interest in understanding how individuals engage with and experience social media in their everyday lives. This reflects the fundamentally ambivalent nature of social media use, whereby platforms simultaneously provide opportunities for connection, belonging and self-expression while also exposing users to experiences of comparison, compulsion, and emotional strain (Bengtsson & Johansson, 2022; Lupinacci, 2021).

Research has examined these experiences through a variety of concepts, including social media addiction, problematic social media use, digital dependency, and compulsive engagement (Andreassen & Pallesen, 2014; Andreassen, 2015; Hou *et al.*, 2019; Morris *et al.*, 2023). Within these debates, social media-related harms have frequently been conceptualised through individualised frameworks that focus on behavioural symptoms, psychological traits, and users' capacities for self-regulation (Andreassen *et al.*, 2016; Andreassen *et al.*, 2017). While these approaches have generated important insights, scholars have increasingly questioned the tendency to locate responsibility primarily within the individual user, arguing instead for greater attention to the social, cultural and technological conditions in which engagement takes place (Starcevic *et al.*, 2018; Lupinacci, 2021; Coyne & Woodruff, 2023).

Given the established harms of excessive social media use, abstinence or intentional reduction in usage may serve as a restorative strategy. Radtke *et al.* (2022: 192) refer to this practice as a “digital detox,” which involves “abstinence, break, disconnection, detox, time-out, and unplugging” from digital platforms. This detox can range from complete withdrawal to a deliberate reduction in time spent on social media or digital devices (Radtke *et al.*, 2022). However, implementing such practices can be challenging, particularly when social media is deeply embedded in an individual's daily routine (Coyne & Woodruff, 2023). Nonetheless, digital detoxing aims to facilitate feelings of enjoyment, relief, and disconnection. For some users, social media offers the opportunity to foster a “community-at-a-distance” (Williams & Burnap, 2016: 15), which enables the creation of social connectivity or a sense of belonging at times where they may feel less connected to people in their ‘offline’ lives.

Contemporary social media engagement unfolds within platform environments structured by algorithmic recommendation systems, engagement metrics, targeted advertising models, and data-driven forms of commercial governance (Turow, 2011; Zuboff, 2019; Crocco *et al.*, 2020). These systems do not simply facilitate communication but actively shape what content users encounter, how visibility is distributed, and how participation is encouraged (Goodyear *et al.*, 2018; Bishop, 2020; Riemer & Peter, 2021). Through notifications, personalised feeds and recommendation algorithms, platforms create conditions that encourage repeated interaction and prolonged engagement (Lanier, 2018; Bishop, 2025). Consequently, understanding experiences described as habitual, compulsive or addictive requires attention not only to individual behaviours but also to the structural conditions through which those behaviours emerge.

These developments have simultaneously blurred distinctions between media producers and consumers. Building upon Toffler's (1990) original concept, scholars have argued that digital platforms increasingly position users as “prosumers” who both consume and produce content within the same environment (Ritzer & Jurgenson, 2010; Gibbs, 2023). Alongside the growth of influencer culture and self-branding practices, users are encouraged not only to consume content but also to participate in its circulation through posting, sharing, reacting, commenting and curating online identities (Yar, 2012; Duffy & Hund, 2015; Abidin, 2016; Hund, 2023; Bishop, 2025). Even where users do not identify themselves as influencers or content creators (Leary & Tangney, 2012), participation increasingly involves forms of visibility labour and affective labour that require ongoing management of self-presentation, engagement and emotional investment (Duffy & Meisner, 2022; Duffy & Hund, 2015).

While existing research has examined addictive, problematic and habitual social media use, less attention has been devoted to identifying the underlying structural and cultural mechanisms through which these forms of engagement are produced and sustained.

Drawing upon qualitative interviews and a critical realist (CR) framework, this article examines how social media users experience and negotiate their relationships with social media as consumers, producers and prosumers of content. The article develops two conceptual models - the *habitual cycle* and *addictive cycle of social media use* - to demonstrate how engagement is produced, sustained and transformed through interactions between individual agency, cultural expectations and platform structures. Rather than viewing addiction and habitual use as fixed categories, the models conceptualise social media engagement as a dynamic and cyclical process that shifts under particular social, cultural and technological conditions. The findings further highlight the role of algorithmic systems, visibility cultures and platform business models in shaping experiences of self-regulation and harm.

2. The addictive nature of social media: Algorithmics and push notifications

Social media addiction is commonly defined in terms of compulsive engagement and loss of control over use (Andreassen, 2015). While some studies apply behavioural addiction criteria (Griffiths, 1995), these frameworks have been widely critiqued and are not universally accepted. Not all frequent use constitutes addiction; everyday engagement often operates as routine, embedded practice. These practices reflect shifting relationships with platforms rather than fixed behavioural categories. This article distinguishes between *habitual engagement* (routine, taken-for-granted use) and *addictive engagement* (compulsion and loss of control), understood as fluid modes that users move between under different conditions.

Bishop (2025) uses the term *optimisation* to describe the process individuals (particularly women, and marginalised content creators) go through to adjust their online behaviours, self-representation and the content that they produce to align with the demands of platform algorithms, trends across influencer culture(s), and commercial visibility. In this work, Bishop shows that the rise of algorithmics experts in the field of influencers is not a peripheral phenomenon but are central to the cultural system that incentivises constant engagement, the growing monetisation of influencer culture, and adaptation to suit the needs of commercial popularity online (ibid). Hund (2023) similarly found that platform rewards (growing communities, likes, comments and wider sharing of one's content), and visibility due to following online trends, drives performance and the continuous production of content that aligns with the evolving norms of cultural spaces online. It is evidenced in both studies that the 'dependency' on social media that is experienced by 'prosumers' further drives the strategic engagement and building of the branding (Ritzer & Jurgenson, 2010; Hund, 2023) – or in the case of this research, the 'self-brand' that underpins *influencer culture*.

Non-professional (i.e., every day, non-monetised) users' online visibility work increasingly resembles self-branding, because the affective labour they perform - managing positivity, authenticity, responsiveness, and emotional tone - feeds directly into the strategic self-curation demanded by platform logics. Scholars of affective labour argue that users generate value for platforms by producing emotional connection and constant engagement, while research on visibility labour shows that staying "seen" requires continuous calibration of one's persona to audience expectations and algorithmic pressures (Duffy & Meisner, 2022; Abidin 2016). This emotional and curatorial work pushes ordinary users toward maintaining a coherent, recognisable identity that aligns with platform norms of authenticity, productivity, and consistency, effectively transforming everyday self-presentation into a form of self-branding (Duffy & Hund, 2015). Coleman (2018; 2020) similarly argues that digital media increasingly organise experiences of immediacy, visibility and participation within the present moment. The continual management of attention, responsiveness and self-presentation required by social media therefore extends beyond content production alone, involving ongoing affective engagement with

platform cultures and audiences. In this sense, the labour of being visible online, once framed as casual participation, now mirrors the professionalised practice.

A push towards strategic engagement from intermittent/fewer formal interactions with social media is an exploitative practice conducted by the platforms who are financially profiteering (see Bishop, 2025). The notion of strategic engagement with social media supports the work of Yar (2012) whereby contemporary content creators are continuing to feed the neoliberal needs of social media markets, where individuals who do not identify as *influencers* become prosumers due to feelings of pressure to optimise their online presence for visibility, credibility and at times professional viability. At times this occurs with little consideration for the impact that the algorithmic design of social media platforms will have on its' users (Bishop, 2020), whether they be producers, consumers, or 'prosumers'.

Social media business models are often justified through the logic of marketisation, particularly in the development of targeted advertising (Turow, 2011; Crocco *et al.*, 2020). The use of algorithmically generated suggested content (Goodyear *et al.*, 2018) forms part of what Zuboff (2019) terms a capitalist mechanism of social control, designed to drive consumerism in the digital age. Lanier (2018) highlights the role of digital technicians employed to analyse user data and engineer engagement through algorithmic design, further encouraging the rise of the 'prosumer'. With technicians employed to work specifically on the manufacturing of attention-grabbing platforms that frequently engage their users, the conditions of social media consumption are manipulated to encourage prolonged usage. As Riemer & Peter (2021) note, this facilitates algorithmic prompting over intentional user interaction (a causal mechanism experiences described as addictive social media) - for example, via smartphone notifications that draw users back during predicted high-engagement periods (Lanier, 2018). These interactions further shape users' content feeds, reinforcing algorithmic influence (Goodyear *et al.*, 2018). Rifkin (2022) emphasises the psychological resilience required to meet the demands of such engagement-driven platforms, resonating with Sandford & Quarmby's (2018) findings on the pressures faced by young people in digital environments. Without this resilience, users risk losing agency and identity (Rifkin, 2022), highlighting the need for stronger regulation around influencer culture, algorithmic design, and digital consumerism (Sharp & Gerrard, 2022). This perspective aligns with Turow (2011), who highlights the pursuit of financial gain at the expense of user well-being, particularly using potentially addictive algorithms. These concerns have become increasingly significant within contemporary regulatory debates. In the UK, the Online Safety Act (2023) introduces new duties for platforms to assess and mitigate risks associated with online harms, with specific focus on harms being emotional, physical and psychological in permeation. While this study examines user experiences prior to the implementation of the Act, the findings speak directly to the kinds of platform dynamics that regulation seeks to address, particularly the role of recommendation systems, engagement-driven business models, and the governance of harmful content.

Existing research fails to address the underlying mechanisms that shape *addictive* and *habitual* relationships with social media content consumption and production. This research investigates lived experiences relating to the relationship between social media users and the platforms to contribute to this gap in empirical knowledge. Further, this article identifies the challenges faced by social media users and the harms they are exposed to in the process of regulating their engagement with online platforms.

3. Methods

This article draws upon lived experiences of social media in relation to how social media use may influence a person's relationship with their body, their lifestyle and their perception of how they use social media. This was achieved using semi-structured interviews that comprised of experiential narratives from 22 interview participants who reflected on retrospective and current usage of social media providing enriched qualitative data. Data for this study was collected prior to the implementation of the UK Online

Safety Act (2023). This reflects platform conditions before the introduction of formal regulatory frameworks addressing online harms.

Participants were recruited in the United Kingdom using a self-selection snowball sampling approach. Recruitment advertisements were distributed through social media platforms including LinkedIn, Facebook and Instagram, alongside postgraduate researcher mailing lists and Microsoft Teams channels at the researcher's university. Eligible participants were required to be aged between 18 and 30 years and resident in the UK. This age range was selected to capture the experiences of young adults who had engaged with social media throughout adolescence and could therefore retrospectively reflect on the development of their social media use over time. Interviews were conducted between April and July 2022 by the researcher. Participants were given the option of taking part either online via Microsoft Teams or Google Meet, or in person at a location of their choosing. The mode of interview was determined by participant preference. Interviews lasted approximately 90 minutes on average and were audio-recorded and transcribed for analysis.

The sample included 20 individuals who identified as female and 2 as male; 1 female participant identified as disabled, and 4 disclosed diagnoses related to eating disorders or mental health conditions. Each interviewee was anonymised using the provision of a pseudonym ahead of the transcription process to ensure that at no stage of the research was identifiable information recorded. This study was approved by the university ethics committee.

A critical realist (CR) approach informed the analytic process by emphasising the identification of underlying generative mechanisms rather than solely describing observable (empirical) experiences. Following transcription and initial inductive coding, a process of retrodution was employed to move from these empirical accounts (participant experiences) to theorising the structural and cultural mechanisms shaping the way social media content is consumed and produced. Retrodution acted as a mode of inference here that allowed the researcher to move from participants' empirical accounts of social media use towards theorising the underlying structural, cultural and platform-based mechanisms that may generate these experiences. Thus, enabling the researcher to look back over empirical accounts shared by participants to identify the causal powers underpinning observed patterns (Stutchbury, 2022).

CR distinguishes between empirical experiences, the events that generate those experiences, and the underlying mechanisms that make such events possible (Bhaskar, 1978; Sayer, 2000). Consistent with this approach, retrodution was used as an analytical strategy to move beyond participants' accounts of social media use and consider the structural, cultural, and platform-based mechanisms that may explain the patterns identified within the data.

Sayer's (2000) representation of CR alongside Bhaskar's (1978) visual depiction of the levels of empirical reality to theorise individual experiential accounts were used to inform the development of the models of *addictive* and *habitual* cycles presented in the following section. The researcher operationalises Lawson's (1998) conceptualisation of *demi-regularities* to position the commonalities in lived experience shared by participants in this research, that may not be *as* common as other shared experiences but are equally as important to one's lived experience. This approach enabled the analysis to move between empirical data, interpreted meanings, and broader structural explanations, consistent with Bhaskar's stratified ontology.

While contemporary literature increasingly adopts the term "problematic social media use" to avoid pathologising everyday engagement (e.g., Starcevic *et al.*, 2018), the term "addictive" is retained in this study to reflect the language used by participants themselves. Participants frequently described their experiences using terms such as "addiction", "urges", and "loss of control", which were analytically treated as meaningful expressions of how they understood and narrated their own engagement. In line with a critical realist (CR) approach, these accounts are not taken at face value as clinical categories, but as empirically grounded descriptions that point towards underlying social, cultural, and platform-specific mechanisms shaping engagement.

4. Consumer behaviours in self-management of social media use

To contextualise participants' experiences, it is important to first consider the range of platforms through which social media engagement occurred. Participants reported engagement across multiple platforms, with most using several concurrently (see Table 1). This reflects the multi-platform nature of contemporary social media use, in which different platforms offer distinct forms of interaction, visibility, and content circulation. These environments form the structural conditions within which participants' experiences of *habitual* and *addictive* engagement emerge. During interviews, the researcher was therefore able to identify 'what' social media is perceived to be, and which platforms were most popular amongst participants, finding:

Table 1. Participant social media use

Table outlining the platforms participants identified with using (or having previously used)

<i>Social media platform</i>	<i>Number of participants that use/have used these platforms</i>
<i>Facebook</i>	100% [n=22]
<i>Instagram</i>	95.45% [n=21]
<i>X (Twitter at the time of data collection)</i>	86.36% [n=19]
<i>TikTok</i>	77.27% [n=17]
<i>Snapchat</i>	72.73% [n=16]
<i>YouTube</i>	63.63% [n=14]
<i>LinkedIn</i>	18.18% [n=4]
<i>Reddit</i>	9.09% [n=2]
<i>Bebo (previously used)</i>	9.09% [n=2]
<i>Twitch</i>	4.55% [n=1]

The initial section of the qualitative interviews was guided by participants' social media experience, where they were invited to reflect on their recollections of when they first began using social media, which platforms they currently use or have previously used, and the purposes underlying their engagement with these platforms. Notably, highly visual and algorithm-driven platforms such as Facebook, Instagram, X and TikTok were among the most widely used, of which rely heavily on personalised content feeds and engagement metrics. These platform features were frequently referenced by participants when describing experiences of prolonged scrolling, comparison, and difficulty disengaging. Participants described diverse motivations for social media use, including continued engagement despite recognising negative impacts on wellbeing. These accounts demonstrate differentiated motivations for continuing to engage with social media. These distinctions shaped how participants attempted to regulate their engagement.

Within these conditions, participants described a range of relationships with social media, shaped by their motivations for use, their patterns of engagement, and their capacities for self-regulation. Although participants rarely identified themselves as content creators, many described practices associated with prosumption, including content curation, selective self-presentation, monitoring engagement metrics and strategic participation in platform cultures. While some engaged as active content producers or 'prosumers', others positioned themselves as passive consumers, often describing themselves as 'silent observers'. Rather than occupying distinct categories of producer and consumer, participants frequently moved between these positions, engaging in varying forms of prosumption depending on platform context, visibility demands and personal motivations. Participants occupied shifting positions along a continuum of prosumption rather than discrete categories of consumer and producer. Across accounts,

social media use was embedded within everyday routines, often operating as a habitual background practice. At the same time, participants demonstrated awareness of the potential harms associated with their engagement, including impacts on mood, self-perception, and offline relationships. As *Anya* explained:

I think it takes such a big chunk of your day. Like it's no wonder the people are either so consumed or so obsessed with what the online world tells them because there is that kind of blurred boundary of what your 'offline life' should be like versus 'online life'.

18 participants reported noticeable impacts on mood, relationships and self-perception. Participants described routine co-present but disconnected behaviours, such as scrolling alongside partners with minimal interaction. These practices were often unchallenged, having become normalised habits.

More specifically, 14 participants described platform-specific effects, with visual and short-form content often intensifying comparison and prolonged use. For example, image-based content consumed via Instagram, language-based statuses consumed via Facebook, or 30-second videos on TikTok. Findings from this study infer there is no single content type that consistently drives engagement online, reflecting the personalised nature of algorithmic feeds. The diversity of platforms used further reinforces the absence of a single, uniformed mode of engagement, highlighting the fragmented and highly individualised nature of social media practices.

Participants described a range of self-regulation strategies grounded in a perceived responsibility to manage their own use. This responsibility was frequently individualised rather than attributed to platforms. Therefore, participants may be able to form a relationship with social media that feels beneficial to their lifestyle with hopes that this either does not impact their relationship with their 'offline self' or has a positive effect on this relationship. Common strategies included curating feeds (e.g., unfollowing harmful content) to improve wellbeing. Participants stated that they could see, or had seen, a positive impact on their self-esteem and their engagement with social media simply due to shifting the 'type' of content that they were exposed to. For *Bekki*, this involved following 'normal people' who were 'more positive' and would represent different types of bodies and marginalised communities. For *Christie*, this required a conscious effort to 'avoid following reality stars', naming shows such as Love Island as a programme she believed to promote body modifications, beauty enhancement surgery and therefore make 'young women in their 20s feel shit about themselves'. In this, *Christie*, acknowledged that had reality television been produced and 'modified' in the way that it is in contemporary society, she believed it would have 'hugely disadvantaged' her in her teenage years and 20s due to the lack of representation of different bodies, backgrounds and abilities that it represents. Participants such as *Christie* and *Ivy* reflected on the self-management of social media as being intertwined with their consumption of wider mass media, and this having an impact on the way that they engaged with social media. Thereby, whether they felt 'addicted' to using social media/following a particular programme or series, or whether this became a 'habit' in everyday practices. These accounts reflect the ambivalent nature of social media use, whereby participants recognised platforms as both sources of connection and validation and sites of frustration, comparison, and unwanted engagement (Bengtsson & Johansson, 2022; Lupinacci, 2021; Sundar & Limperos, 2013).

Participants highlighted the influence of 'for you' algorithms in shaping exposure beyond their control. The algorithm that underpins the suggested content that is generated for each individual social media user is made up of content that social media users regularly consume, hover over for more than 5 seconds, or if personal information would suggest they may be interested in a particular trend, TV show, or genre of influencer. This limited participants' ability to regulate content exposure, even when attempting to do so. As *Charlotte* described, despite not intentionally following influencer content that affected her self-esteem, such posts still appeared in her Instagram 'recommended for you' stream:

... you can go through and cancel this stuff, that's just not appropriate on Instagram. If you're a woman, I just feel like it's either 'this is what you need to do this summer', or there'll be something around what you should be doing at the gym

instead, all them daft posts about ‘lose so much weight in so many days’ or this is the detox stuff and things like that and I just don’t want to see it... I don’t follow things like that, but I’m still getting the pop ups.

Katie and Grace shared similar experiences, opting to delete social media apps from their phones, while Kayla removed shortcut links to reduce the temptation of overuse. These forms of self-regulation, and the shift from habitual to potentially addictive use, are explored further in the addictive cycle section. Participants' efforts to filter, avoid, or curate unwanted content illustrate the affective work involved in managing platform participation. Rather than simply consuming content, users engaged in ongoing emotional and visibility management to negotiate algorithmically curated environments, reflecting broader discussions of affective labour and everyday social media use (Coleman, 2018; Coleman, 2020; Bengtsson & Johansson, 2022).

Regardless of whether participants identified as having the ability to regulate their social media consumption, a changing condition increasing social media reliance were the Covid-19 lockdowns in the UK, between March 2020 and June 2021. According to Sam, the Covid-19 lockdown(s) ‘took away [feelings of] control’ from a vast number of people, and for Caitlin, this saw a significant rise in her average screen time from 4 hours a day, to 10 hours a day. This came as a direct consequence of the removal of her usual daily routine due to pandemic restrictions imposed by the U.K. Government. Lucy believes there has been a cultural change in the online space, specifically social media, since the initial Covid-19 lockdown in March 2020. This saw heightened engagement with social media and more people wanting to share more of their lives publicly on social media. All participants identified the pandemic as a turning point in their relationship with social media. For the majority (n=14), this impact was long-term, while for others (n=8) it was short-term, but altered their broader perception of social media.

The findings presented thus far highlight the variability and fluidity of participants’ relationships with social media, shaped by individual motivations, platform environments, and changing social conditions. While these experiences differ in form, recurring patterns can be identified across accounts, particularly in relation to routine engagement, difficulties disengaging, and ongoing efforts at self-regulation. From a CR perspective, these recurring patterns are treated as demi-regularities (see Lawson, 1990): observable but non-universal tendencies that point towards underlying generative mechanisms. Across participant narratives, these demi-regularities coalesced around two broad modes of engagement: habitual use, characterised by routine and embedded everyday practices, and addictive use, marked by compulsion, loss of control, and persistent return to platforms despite recognised harms. The following section will explore how these individualised perspectives and experiences (demi regularities) (Lawson, 1998) can be theorised into the addictive and habitual cycles of social media use. To capture this dynamic relationship, the following section develops two conceptual models - the habitual cycle and the addictive cycle of social media use - grounded in participants’ accounts and interpreted through a critical realist analytical lens. In doing so, the cyclic models provide a means of moving beyond descriptive accounts of social media use to theorise the mechanisms through which habitual and addictive engagement are produced and sustained.

5. Addictive and habitual cycles of social media use: Understanding social media relationships

Participant frequently described their experiences using the language of “habit” and “addiction”, which informed the analytical distinction developed here. This was an experience personalised to the individual, and something that could shift over time depending on the conditions in which social media was being used. Habitual engagement refers to routine, often low-level interaction with social media, embedded within everyday practices and frequently operating in the background of daily life. Whereas addictive engagement, as described by participants, refers to experiences of compulsion, difficulty disengaging, and a perceived loss of control over time spent of platforms. These modes were not discrete but fluid, with users moving between them under different conditions. From a CR perspective, these modes (cycles)

of engagement are understood as empirically observable expressions of underlying generative mechanisms, including algorithmic prompting, social comparison, and platform-specific rewards. The following conceptual models illustrate how these modes of engagement operate as cyclical processes rather than static states.

Participants described their habitual use in different ways. For example, *Katie* shared that social media use had become a part of daily life, not just for her, but others around her, and was very much normalised in contemporary society. *Zara* emphasised that scrolling could be a task that takes ‘around 5 minutes... [but then] 3 hours later it’s like what?’ Some participants linked habitual use to generational norms of constant connectivity.

Participants described the Covid-19 lockdowns as intensifying engagement, blurring the distinction between habitual and compulsive use. In this context, ‘boredom scrolling’ often shifted into ‘doomscrolling’. In Figure 1 and 2, a visual map of the cyclical nature of *addictive* and *habitual* use(s) of social media is presented.

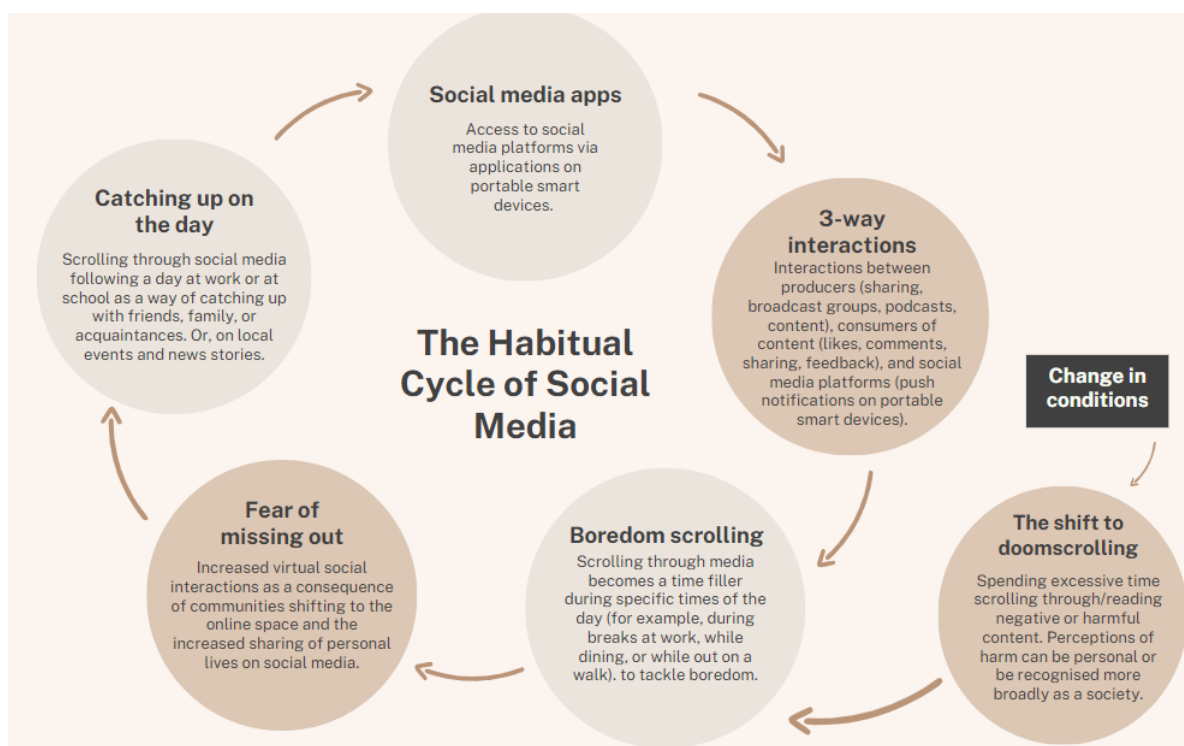


Figure 1. The Habitual Cycle of Social Media

The *habitual cycle* (Figure 1) begins with routine access to platforms, followed by ongoing interaction between users, content, and platform systems. When actively using the social media app, a 3-way interaction is initiated between social media producers, consumers, and the platform. Platform mechanisms (e.g., notifications, personal feeds) sustain repeated engagement and continue to draw in user attention. The 3-way interaction that initiates both the *addictive* and *habitual cycles of social media use* acts as structure of social media engagement. The making of the *habitual cycle of social media use* sits within steps 3 and 5 of the cycle shown in Figure 1: the use of ‘scrolling’ as opposed to ‘urge’ to check social media that can be seen in step 3 of the *addictive cycle* in Figure 2.

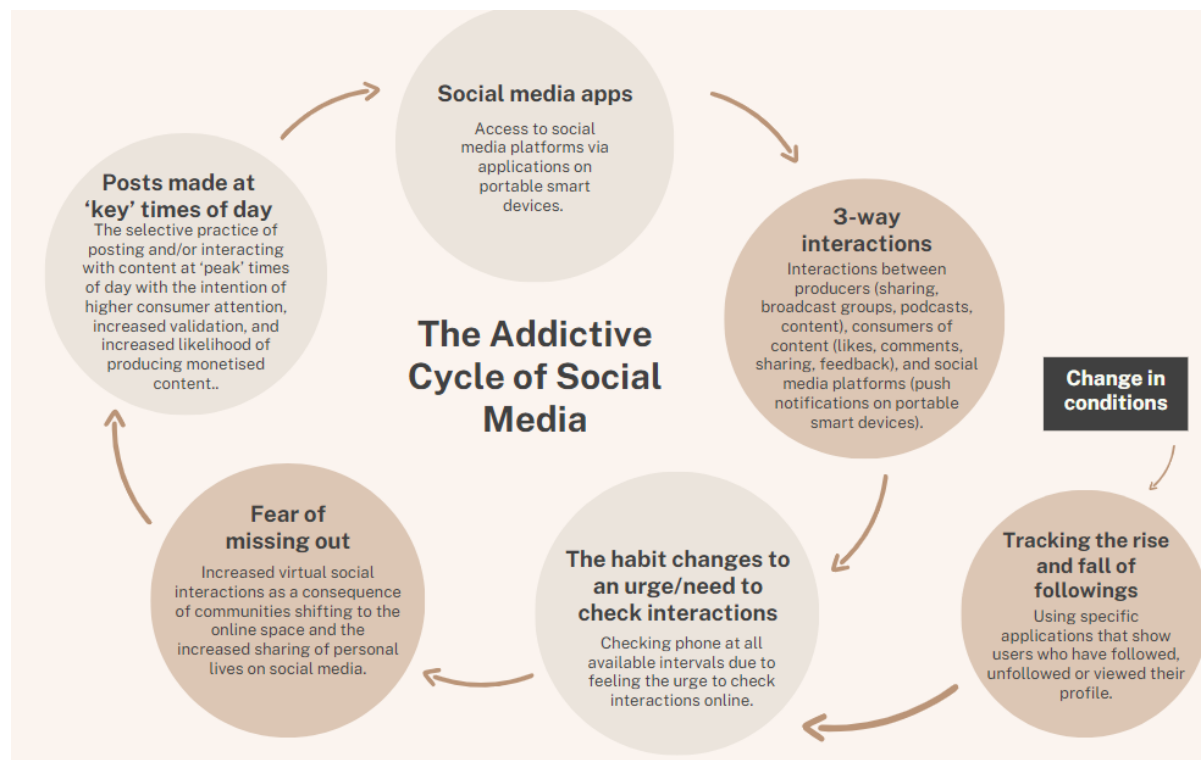


Figure 2. The Addictive Cycle of Social Media

Importantly, habitual engagement is not necessarily benign and should not be understood as inherently less harmful than addictive engagement. Rather, each mode reflects different patterns of interaction, the impacts of which depend on the nature of content, duration of engagement, and individual context (demi-regularities). *Zak* relayed experiences of ‘scrolling for hours’ whilst on nightshift, and his experience was negative; he viewed this as ‘so bad, [as] this is what they [social media platforms] wants... but I don’t have anything to do, [and] it keeps you awake’.

A key distinction between cycles concerns the extent of content production. Participants in this research exhibited patterns of engagement consistent with prosumption, despite also recognising that prosumption can intensify the likelihood of addictive engagement, particularly where visibility and monetisation are prioritised. Engagement metrics reinforce continued participation through cycles of feedback and visibility. Social media prosumers are more likely than consumers (or, ‘silent observers’) of social media to track the rise and fall of their following and are more likely to experience a changing mindset towards their social media use – from the ‘habit’ of checking their social media following and the urge to check social media interactions (see Figure 3).

The use of a tracking app to observe the rise and fall of followers could indicate an individual’s ‘addiction’ to social media engagement as a content creator, as well as a content consumer (shifting to become the ‘prosumer’), but this is not a cause (mechanism) that underpins all *addictive cycles of social media use*. The tracking of followers can be recognised as a demi-regularity (and change of condition/individualised experience) within the findings of this article. Although it was not an experience shared by many participants, this was a practice identified by *Zak* as a significant shift in how he used social media. The monitoring of follower metrics further illustrates the affective dimension of platform participation, whereby fluctuations in visibility become emotionally significant and encourage ongoing surveillance of one’s own performance.

The *addictive cycle of social media* is not just experienced by those producing social media content but also shared by consumers. Experiences described as FOMO can be understood as empirically observable manifestations of deeper mechanisms associated with algorithmic visibility, social

connectivity and platform-rewards (Sundar & Limperos, 2013). This sense of disconnection reinforces the compulsion to check online interactions, ultimately increasing time spent on social media. This ‘fear of missing out’ was identified as the deciding factor for whether *Alice* or *Annabelle* would use or delete social media. *Annabelle* identifies that ‘if you try to withdraw from it all you almost isolate yourself. I don’t get FOMO that bad, like too bad, but I got it a little bit.’ *Alice*, related the self-management of screen time to self-discipline and personality types:

It is fear of missing out, but it is not fear of getting a phone that you urgently need to take – it is understanding what this life-or-death feeling is of being on or off social media. It is a form of addiction, yeah. Where everything must be a story, or a post – is that a personality type, or a habit that you can’t break?

The overarching aim of social media platforms is to encourage frequent engagement with social media, achieved through the algorithms that underpin their business models to maximise engagement and enhance the popularity of their platforms in the current consumer market. Therefore, FOMO is fuelled by the delivery of push notifications to smart devices at different times of day and increased exposure to virtual social interactions due to communities shifting to online spaces, and the use of digital technologies to facilitate conversations (including in the workplace, educational spaces, and in a variety of network spaces) (Brown & Kuss, 2020).

Algorithmic curation was widely recognised as shaping user experience. Social media algorithms curate content based on individual behavioural data, creating highly personalised feeds that reinforce user preferences and extend screen time. These systems reinforce feedback loops that extend engagement (Livingstone, 2018; Hund, 2023). Due to the lack of transparency in how algorithms function, users - particularly influencers - engage in speculative practices to maintain visibility, leading to cycles of trial, error, and overuse (Livingstone, 2018; Bishop, 2019). This uncertainty encourages compulsive platform interaction. Influencer practices shaped by *algorithmic gossip* and communal speculation demonstrate how platform design pressures users to remain constantly active and responsive. These conditions mirror the habitual behaviours exhibited by everyday users (Bishop, 2019). The algorithm can be identified as creating harms acting as a causal mechanism in the production of cultural, embedded and structural harms experienced by social media users who engage with media platforms for prolonged periods of time, such as body-related anxiety, low self-esteem, and their description of feelings addicted to social media and normalised unregulated diet markets.

FOMO can prompt individuals to transition from passive consumers to active ‘prosumers’ of social media. Notably, no participants referred to themselves as having a dual identity as the consumer and producer of social media content, nor did any participants refer to themselves as an ‘influencer’. The language that was used by participants was that they were a ‘silent observer’ (consumer), or that they posted due to the pressures of social media (producer) but did not discuss their consumption and production in the form of an identity, building on the work of Fergie *et al.* (2016). Fergie *et al.* (2016) outline a 3-fold typology of social media users related to the level of online engagement with user-generated content: *non-engagers*, *tacit consumers* and *prosumers*. In this research, *non-engagers* involving the same behaviours as the ‘silent observer’ termed in this research with *non-engagers* being least likely to become ‘prosumers’ and being most likely to be habitual scrollers. Whereas *tacit consumers* do not assert expertise as a producer of content nor use social media to generate financial incentives, but as more likely than a *non-engager* to become a ‘prosumer’.

Participants’ accounts reveal the ambivalent nature of social media use, whereby platforms were simultaneously experienced as sources of connection, belonging and validation, whilst also contributing to comparison, compulsion and emotional strain. As content producers, individuals engage in selective posting practices - choosing what to share, when to share it, and on which platform - to maximise engagement. *Alice* described the strategic use of ‘peak times’ by influencers and prosumers to increase likes, shares, and potential revenue through brand deals or advertisements. However, monetisation is not essential; the *addictive* cycle is fuelled by the satisfaction derived from engagement metrics alone. FOMO

operates as a key mechanism within the cyclic nature of social media use, shifting motivations from casual browsing to intentional monitoring of specific events or individuals. *Alice's* account highlights how participation increasingly involves forms of visibility labour, requiring users to monitor audience engagement, anticipate platform preferences, and strategically manage self-presentation (alike Hund, 2023; Bishop, 2025). A lack of desire may intensify FOMO, compelling individuals to remain visibly 'present' online despite feeling disconnected, thereby reinforcing addictive patterns of social media use. Social media frequently became a habitual background, and an integral part of everyday practices (Livingstone, 2018). Participants' experience of FOMO evidence that remaining socially visible and emotionally connected requires ongoing affective work.

5. Discussion: Harms of the contemporary consumer (social media) market

The key contribution of this article is the development of the *habitual* and *addictive* cycles as a means of conceptualising movement between modes of engagement, rather than treating habitual or 'addictive' use as fixed categories. The findings indicate that harms associated with social media are not incidental, but produced through the marketisation of platform cultures, including influencer and diet culture spaces. It is important to note that the data informing this study were collected prior to the implementation of the Online Safety Act (2023). As such, participants' experiences reflect platform conditions in the absence of formalised regulatory interventions targeting online harms. This positions the findings as indicative of how harm is produced and normalised under relatively unregulated platform conditions, highlighting the structural dynamics that regulation now seeks to address.

Participants retained capacities for agency and self-regulation, but these efforts occurred within platform environments specifically designed to encourage continued engagement. Self-regulation enables individuals to potentially overcome the addictive attributes of social media to use it in a habitual fashion, without the need to fully remove themselves from the platforms altogether. While users adopt strategies of self-regulation, these operate within conditions that structurally constrain their effectiveness. Sadly, platforms economies prioritise engagement and monetisation (Zuboff, 2019) often at the expense of user wellbeing. Within this study, presumption emerges as a key mechanism linking platform economies to cyclical patterns of engagement. Participants' accounts suggest that experiences of harm differ depending on whether engagement is primarily consumptive or productive. Figure 4 draw on Sayer's (2000) model of causation to illustrate how these dynamics operate as generative mechanisms.

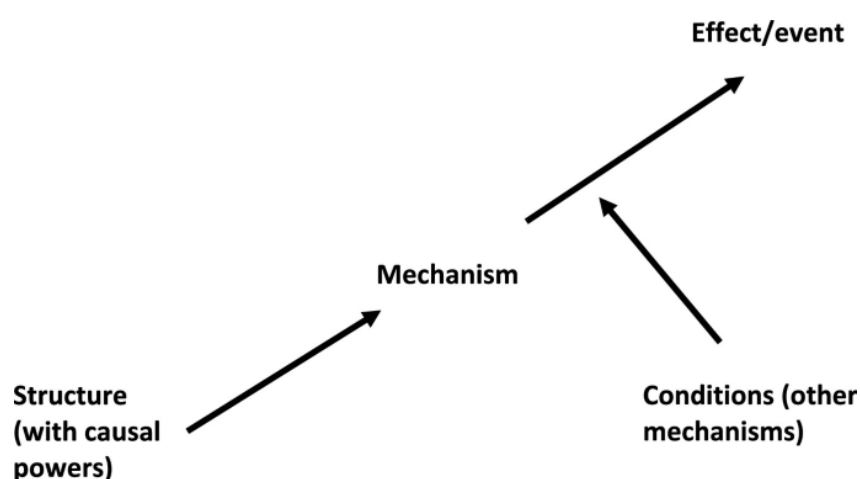


Figure 3. Andrew Sayer's (2000) diagram of critical realism

A visual representation of Andrew Sayer's (2000) conceptualisation of how knowledge is understood using critical realism.

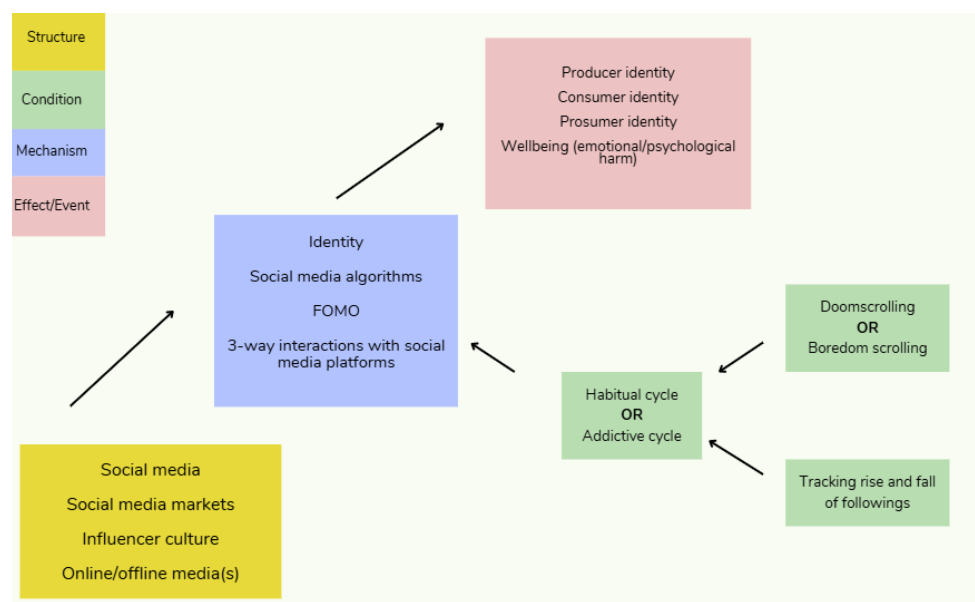


Figure 4. Lauren Steckles-Young's conceptualisation of critical realism

Adapted from Sayer's (2000) mapping of CR to demonstrate CR analysis of social media participation in this study

The model illustrates how mechanisms such as FOMO and perceived isolation trigger cycles of engagement that expose users to emotional and psychological harms. These harms are embedded within platform structures that normalise and reproduce them as part of everyday engagement. These harms emerge within platform environments structured around engagement and monetisation, where user participation is continually incentivised through algorithmic recommendation systems, visibility cultures, and commercial platform logics (Zuboff, 2019; Lanier, 2018; Bishop, 2025).

Prosumption is further driven by platform cultures that incentivise visibility, participation, and content production, including opportunities for monetisation (Bishop, 2025) and forms of social recognition (Hund, 2023). Such pressures were identified by *Alice* where she disclosed sharing her health and fitness 'journey' to uphold accountability to their aesthetic goal. These dynamics intensify movement between *habitual* and *addictive* modes of engagement; social media users can move between obtaining an experience described as addictive in their use of social media and scrolling social media being an everyday practice that is a habit. It is not the case that once the *addictive cycle of social media* has been initiated, that it cannot return to a habitual relationship. Both modes emerge from the same underlying interaction between users, content, and platform systems. Which mode emerges depends on the interaction between user motivation, platform design, and contextual conditions. Experiences of compulsion and anxiety are associated with shifts towards addictive engagement, whereas routine or instrumental use reflects habitual engagement. Alternatively, if the user is using social media as a behaviour to pass time or has scheduled in social media content creation/posting as part of their job (for example), they are entering into a *habitual cycle*.

6. Conclusion

Engagement with social media does not reach a definitive endpoint; rather, it evolves through cycles. At different points, a user's relationship with social media may shift - from one characterised by addiction to one shaped by habit - depending on their self-perceived identity and orientation toward platform use (Leary & Tangney, 2012). These cycles function as generative mechanisms, with emergent properties shaped by contextual conditions such as the accessibility of social media, the absence of platform regulation, the presence of stigma within online spaces, and transitions in user identity. These dynamics are reinforced by algorithmic platform economies that promote continuous engagement, structured

around users' daily routines. This ongoing cycle fosters and sustains both *habitual* and *addictive* relationships with social media, as reflected in the findings of this research. The visual representations of the *addictive* and *habitual cycles of social media use* presented in this article offer a significant contribution to the field of study by illustrating that the relationship between the social media user (as producer, consumer, and 'prosumer'), the platform, and the cultural frameworks underpinning these interactions is ongoing and recursive. The neoliberal market that underpins social media platforms is intrinsically linked to the harms experienced by users, with the prioritisation of organisational profiteering over the individualised and often invisible harms encountered through platform engagement and content exposure.

This article demonstrates that harms operate at a structural level shaped by platform economies and cultural norms rather than solely individual behaviours. Addressing these harms requires interventions that move beyond individual responsibility toward structural regulation. As this study captures user experiences prior to the implementation of the Online Safety Act (2023), it provides a baseline for understanding how engagement cycles and associated harms may be reshaped under emerging regulatory conditions. This includes reconsidering how 'harm' is defined within regulatory frameworks such as the Online Safety Act (2023). Attention should be paid to algorithmic recommendation systems that sustain engagement cycles, both *habitual* and *addictive*. Further, this should involve wider consultation using lived experiences and existing evidence bases to consult on how social media platforms can improve their algorithmic designs to support users in regulating their own consumption and production of content.

References

- Andreassen, C. S. (2015). Online Social Network Site Addiction: A Comprehensive Review. *Technology and Addiction*, 2: 175-184. DOI: <https://doi.org/10.1007/s40429-015-0056-9>
- Andreassen, C. S., & Pallesen, S. (2014). Social network site addiction: An overview. *Current Pharmaceutical Design*, 20: 4053-4061. DOI: <https://doi.org/10.2174/13816128113199990616>
- Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors*, 30(2): 252-262. DOI: <https://doi.org/10.1037/adb0000160>
- Andreassen, C. S., Pallesen, S. & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism and self-esteem: Findings from a large national survey. *Addictive Behaviour*. 64: 287-293. DOI: <https://doi.org/10.1016/j.addbeh.2016.03.006>
- Bengtsson, S. & Johansson, S. (2022). The Meanings of Social Media Use in Everyday Life: Filling Empty Slots, Everyday Transformations and Mood Management. *Social Media + Society*, 8(4). DOI: <https://doi.org/10.1177/20563051221130292>
- Bhaskar, R. (1978). *A Realist Theory of Science* (eds). Routledge: Abingdon.
- Bishop, S. (2025). Influencer creep: How artists strategically navigate the platformisation of art worlds. *New Media & Society*, 27(4): 2109-2126. DOI: <https://doi.org/10.1177/14614448231206090>
- Bishop, S. (2020). Algorithmic experts: selling algorithmic lore on YouTube. *Social Media + Society*. 6(1): 2056305119897323. DOI: <https://doi.org/10.1177/2056305119897323>
- Bishop, S. (2019). 'Managing visibility on YouTube through algorithmic gossip', *New Media & Society*, 21(11-12): 2589-2606. DOI: <https://doi.org/10.1177/1461444819854731>
- Brown, L., & Kuss, D. J. (2020). Fear of missing out, mental wellbeing, and social connectedness: A seven-day social media abstinence trial. *International Journal of Environmental Research and Public Health*, 17(12): 4566. DOI: <https://doi.org/10.3390/ijerph17124566>
- Canning, V. & Tombs, S. (2021). *From Social Harm to Zemiology: A Critical Introduction*. (eds). London: Routledge. DOI: <https://doi.org/10.4324/9780429430497>
- Coleman, R. (2018). Social media and the materialisation of the affective present. In, T. D. Sampson, D. Ellis, and S. Maddison. (eds) *Affect and Social Media*. London: Rowman and Littlefield.
- Coleman, R. (2020). Making, Managing and Experiencing 'the now': Digital Media and the Compression and Policing of 'Real Time'. *New Media + Society*, 22(9): 1680-1698. DOI: <https://doi.org/10.1177/1461444820914871>
- Coyne, P. & Woodruff, S. J. (2023). Taking a Break: The Effects of Partaking in a Two-Week Social Media Digital Detox on Problematic Smartphone and Social Media Use, and Other Health-Related Outcomes among Young Adults. *Behavioural Science (Basel)*, 13(12): 1004. DOI: <https://doi.org/10.3390/bs13121004>

- Crocco, M. S., Segall, A., Halvorsen, A.-L., Stamm, A., & Jacobsen, R. (2020). "It's not like they're selling your data to dangerous people": Internet privacy, teens, and (non-) controversial public issues. *The Journal of Social Studies Research*, 44(1), 21-33. <https://doi.org/10.1016/j.jssr.2019.09.004>
- D'Arienzo, M.C., Boursier, V. & Griffiths, M.D. (2019). Addiction to Social Media and Attachment Styles: A Systematic Literature Review. *International Journal of Mental Health and Addiction*. 17, 1094–1118. DOI: <https://doi.org/10.1007/s11469-019-00082-5>
- Duffy, B. E., & Hund, E. (2015). "Having it all on Social Media": Entrepreneurial Femininity and Self-Branding Among Fashion Bloggers. *Social Media + Society*, 1(2). DOI: <https://doi.org/10.1177/2056305115604337>
- Duffy, B. E., & Meisner, C. (2022). Platform Governance at the Margins: Social Media Creators' Experiences with Algorithmic (in)Visibility. *Media, Culture & Society*: 1-20. DOI: <https://doi.org/10.1177/01634437221111923>
- Dhingra, R. & Parashar, B. (2022). Validation of Social Media & Adolescents: A matter of self esteem. *Journal for Educators, Teachers and Trainers*: 13(4): 114-119. DOI: <https://doi.org/10.47750/jett.2022.13.04.017>
- Fergie, G., Hunt, K. & Hilton, S. (2016). Social media as a space for support: Young adults' perspectives on producing and consuming user-generated content about diabetes and mental health. *Social Science & Medicine*. 170, 46-54.
- Ford, E., Curlew, K., Wongkoblap, A. & Curcin, V. (2019). Public Opinions on Using Social Media Content to Identify Users with Depression and Target Mental Health Care Advertising: Mixed Methods Survey. *JMIR Mental Health*, 6(11): e12942. DOI: <https://doi.org/10.2196/12942>
- Gibbs, N. (2023). *The Muscle Trade: The Use and Supply of Image and Performance Enhancing Drugs*. Bristol: Bristol University Press.
- Goodyear, V., Wood, H., & Armour, K. (2018). *Yaz: Suggested or recommended social media content*, in V. Goodyear & K. Armour 'Young People, Social Media and Health'. London: Routledge.
- Gov UK. (2023) Online Safety Act 2023, c. 50. (UK Public General Acts).
- Hall, A. (2019). Lifestyle Drugs and Late Capitalism: A Topography of Harm. In, T. Raymen & D. Smith (eds) *Deviant Leisure: Criminological Perspectives on Leisure and Harm*. Palgrave Studies in Crime, Media and Culture: Palgrave Macmillan, Cham: 161-186.
- Hund, E. (2023) *The Influencer Industry: The Quest for Authenticity on Social Media*. Princeton University Press. DOI: <https://doi.org/10.2307/j.ctv2v6pczn>
- Hou, Y., Xiong, D., Jiang, T., Song, L., & Wang, Q. (2019). Social media addiction: Its impact, mediation, and intervention. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 13(1), Article 4. DOI: <https://doi.org/10.5817/CP2019-1-4>
- Lanier, J. (2018). *Ten Arguments for Deleting Your Social Media Right Now*. London: Bodley Head.
- Lawson, T. (1998). Economic science without experimentation. In, R. Bhaskar, M. Archer, A. Collier, T. Lawson & A. Norrie (eds) *Critical Realism: Essential Readings*. Critical Realism. Interventions. London: Routledge.
- Leary, M. R. & Tangney, J. P. (2012). *Handbook of Self and Identity*. (2nd eds). New York: The Guilford Press.
- Livingstone, S. (2018). 'Audiences in an age of datafication: Critical questions for media research', *Television & New Media*, 20(2), pp. 170–183. DOI: <https://doi.org/10.1177/1527476418811118>
- Lupinacci, L. (2021). 'Absentmindedly scrolling through nothing': Liveness and compulsory continuous connectedness in social media. *New Media + Society*, 43(2): 273-290. DOI: <https://doi.org/10.1177/0163443720939454>
- Morris, R. III., Moretta, T. & Potenza, M. N. (2023). The psychobiology of problematic use of social media. *Current Behavioural Neuroscience Reports*, 10: 65-74. DOI: <https://doi.org/10.1007/s40473-023-00261-8>
- Radtke, T., Apel, T., Schenkel, K., Keller, J. & von Lindern, E. (2022). Digital detox: an effective solution in the smartphone era? A systematic literature review. *Mobile, Media & Communications*. 10(2), 190-215. DOI: <https://journals.sagepub.com/doi/10.1177/20501579211028647>
- Riener, K. & Peter, S. (2021). Algorithmic audiencing: Why we need to rethink free speech on social media. *Journal of Information Technology*. 36(4). DOI: <https://doi.org/10.1177/02683962211013358>
- Rifkin, J. (2022). *The Age of Resilience: Reimagining Existing on Rewilding Earth*. (eds). London: Swift Press.
- Ritzer, G., & Jurgenson, N. (2010). Production, consumption, prosumption: The nature of capitalism in the age of the digital 'prosumer'. *Journal of Consumer Culture*, 10(1), 13–36. DOI: <https://doi.org/10.1177/1469540509354673>
- Sandford, R. & Quarmby, T. (2018). Space, place, and identity: New pressures in the lives of young people, in V. Goodyear & K. Armour, *Young People, Social Media and Health*. London: Routledge. DOI:
- Sayer, A. (2000). *Realism and Social Science*. London: SAGE Publications. DOI: <https://doi.org/10.4135/9781446218730>
- Sharp, G., & Gerrard, Y. (2022). The Body Image "Problem" on Social Media: *Novel Directions for the Field*. *Body Image*, 41, 267–271. <https://doi.org/10.1016/j.bodyim.2022.03.004>
- Starcevic, V., Billieux, J., Schimmenti, A. (2018). Selfitis and behavioural addiction: A plea for terminological and conceptual rigour. *Australian and New Zealand Journal of Psychiatry*, 52(10): 919-920. DOI: <https://doi.org/10.1177/0004867418797442>
- Stutchbury, K. (2022). Critical realism: an explanatory framework of small-scale qualitative studies or an 'unhelpful edifice'? *International Journal of Research & Method in Education*, 45(2): 113-128. DOI: <https://doi.org/10.1080/1743727X.2021.1966623>

- Sundar, S. & Limperos, A. M. (2013). Use of grats 2.0: New gratifications for new media. *Journal of Broadcasting + Electronic Media*, 57(4): 504-525. <https://doi.org/10.1080/08838151.2013.845827>
- Toffler, A. (1990). *Powershift: Knowledge, wealth, and violence at the edge of the twenty-first century*. New York, NY: Bantam.
- Toma, C. L. & Hancock, J. T. (2013). Self-Affirmation Underlies Facebook Use. *Personality and Social Psychology Bulletin*, 39(3): 321-331. DOI: <https://psycnet.apa.org/doi/10.1177/0146167212474694>
- Tullet-Prado, D., Stavropoulos, V., Gomez, R., & Doley, J. (2023). Social media use and abuse: Different profiles of users and their associations with addictive behaviours. *Addictive behaviors Reports*, 17, 100479. DOI: <https://doi.org/10.1016/j.abrep.2023.100479>
- Turow, J. (2011). *The Daily You: How the New Advertising Industry is Defining Your Identity and Your Worth*. Yale: University Press.
- Williams, M. & Burnap, P. (2016). Cyberhate on social media in the aftermath of Woolwich: A case study in computational criminology and big data. *British Journal of Criminology*, 56: 211-238. DOI: <https://doi.org/10.1093/bjc/azv059>
- Yar, M. (2012). Crime, media and the will-to-representation: Reconsidering relationships in the new media age. *Crime, Media, Culture*. 0(0): 1-16. DOI: <https://doi.org/10.1177/1741659012443227>
- Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. Profile Books.

‘Communism made me do it’: Disruptive right-wing publics as a polarising force in TikTok comments

Esko Nieminen¹, Pekka Isotalus¹ and Kim Strandberg²

¹ Tampere University, Finland

² Åbo Akademi University, Finland

✉ esko.nieminen@tuni.fi

Abstract

TikTok is currently one of the most topical social media platforms in modern democracies due to its ability to reach large, young audiences and the concerns over outside influences and the algorithmic nature of feeds. In Finland, the parliamentary elections of 2023 marked an increase in interest for the platform. At the same time, polarisation is also a trending subject in European social media and society, with TikTok being discussed as one of the drivers of this division. This study investigates whether TikTok comments reveal polarisation through the formation of disruptive right-wing publics alongside publics acting against disruptions during election campaigns. The dataset of the study consists of TikTok videos with their comments from the Finnish parliamentary parties that were present on TikTok before the 2023 parliamentary elections. The comments are analysed through a framework designed to uncover right-wing discursive patterns, with the goal of identifying disruptive right-wing publics that form in the comment sections of TikTok videos. This study also seeks to uncover the precise language used by commenters and thus identify what constitutes different blocs through vocabulary choices. The results indicate that a large disruptive public consisting mainly of right-wing commenters was present on TikTok. The language used by these publics was clearly leaning towards a confrontational position, thus polarising the comment sections. The study also revealed that there did not seem to be a singular right-wing disruptive public, but rather one that was driven by the nationalistic Finns Party, as evidenced by the language present on other right-wing parties' comment sections. On a broader scale the results indicate that disruptive publics have effects on both polarisation and discussion quality on TikTok, and that comment-based discussions are relevant spaces of identity work on a video-first platform.

Keywords: disruptive publics; publics; social media; TikTok; elections, polarization

1. Introduction

Social media has seen its share of communication theories adapted into a highly networked context. One of the foundational theories that has been widely discussed in the context of social media platforms is public theory, which has conceptually branched towards many different directions over the years. One of these directions is the existence of counterpublics: public clusters that seek to undermine hegemonies through counterpublic activities and communication (Warner 2002). The presence of counterpublics in social media is a phenomenon that has been observed to an extent, especially in political right-wing groups that have often appropriated the concept, even from a position of power (Jackson & Kreiss 2023). The right-wing appropriation of counterpublic methods as a strategy may also be seen as an indicator of polarisation, as evident from the divisive language often foundational in these appropriated counterpublics, which are in this paper described with the term “disruptive publics”.

This study seeks to uncover the discursive choices and tactics utilized by right-wing actors on the social media platform TikTok, while striving to grasp the extent of which these disruptive publics are present in the comment sections of the popular platform. Additionally, an aim of the study is investigating whether positional polarisation is present through disruptive publics. To analyse this, the study positions itself into the context of Finnish parliamentary elections of 2023, during which TikTok was used extensively during the campaigning period (Strandberg et al. 2024). As right-wing disruptive publics are the main focus of the study, the division between left and right requires clarification; “right-wing” and “left-wing” have many definitions and connotations in the field of political communication. This study adapts a definition deeply rooted in the surrounding political culture: the rudimentary yet effective split of Finnish parties on the left-right spectrum. Going into the parliamentary elections, the left-wing-led government faced much scrutiny from the right-leaning opposition. It should also be noted that political TikTok has yet to be widely studied in the Finnish context, while existing literature on TikTok comments and discussions is scarce, almost to the point of non-existence. The research gap created by the lack of TikTok-comment-focused studies and the intermingling of disruptive publics and polarisation on a short video -based platform makes the study a relevant outlook into the current state of political communication.

As a platform, TikTok has a large role in contemporary politics: politicians have taken TikTok’s possibilities into account as tools for campaigning and image construction (Mendoza, 2022; Moir, 2023), thus creating a vital need to study the platform from the angle of political communication. TikTok studies have, however, largely ignored the comment sections that form a place for users to interact both with the content but also with each other. The comment sections are a place for creating shared meanings and thus fertile ground for disruptive rhetoric, which this study aims to delve into through analysing the precise language used by commenters.

First, the article focuses on creating an overview of TikTok as a space in which political parties and actors are present, followed by an examination of disruptive publics both as a concept and their formation through discursive choices. Afterwards, the methods of analysis and the collected dataset are introduced, along with an outlook on the Finnish political situation in the context of the study. The results of the analysis are presented in-depth, followed by conclusions, limitations and questions for future studies.

2. TikTok as an arena for political publics

Being present on different platforms and competent in using digital routes to reach voters is an ever-growing part of any politicians’ profession (Isotalus, 2017). The emergence of visual-based social media services has created a need for politicians who know how to navigate spaces characterised by viewer comparisons and presentations of perfection (McCrory et al., 2022) and who have an ever-growing awareness of algorithms and their effect on content dissemination (Hokkanen, 2022).

TikTok's effect on social media is related to the politainment phenomenon (Cervi et al., 2023) and the notion that politics have become a more integral part of pop culture (Battista, 2023). This has also been noted in the study's chosen Finnish context, in which the most watched news shared on TikTok with the hashtag 'politics' consisted of highly popularized subjects (Sihvonen & Manninen, 2024). The entertainment angle of politics is a trend in social media, and TikTok inspires content creators to join political content with memetic properties and humour. This is especially evident when analysing politically inflammatory subjects (e.g. Brown et al., 2022). Affectivity becomes the centre of discussion when analysing public discussion on social media (Zhou et al., 2023), and TikTok is no different in this regard.

Political discussions on TikTok take advantage of the many benefits provided by the platform (Quick & Maddox, 2024), while politicians use TikTok to channel both relatable identities and openness to influence audiences (Grantham et al., 2025). This combination of persuasion tactics and advantages along with the large user base makes TikTok a valuable tool for politicians and an important subject of research. However, comments on TikTok have not been extensively studied, with existing research focusing mostly on, for example, current conflicts (González-Esteban et al., 2024). Comments represent more traditional and text-oriented social media, which could explain the lack of studies concerning the subject. However, interactions and reactive commenting are important aspects of any platform, whether it be visual- or text-based. Therefore, the comments received by TikTok videos reveal how conventional ways of interaction are intermingled with viscosity and persuasiveness. This study aims to examine the more linguistic side of TikTok comments, which could reveal even deeper insight into whether the comment section is seen more as a place for shallow and memetic behaviour or actual debate and discussion.

TikTok has also presented intriguing questions in the ongoing discussion on social media publics: How are publics formed in an algorithm-based environment? As a video-first platform, TikTok specifically presents an interesting case as an arena for the public because of its advantages in many different aspects of networked publics, such as imitation publics (Zulli & Zulli, 2022) or 'sides', which means imagined communities revolving around various topics (Maddox & Gill, 2023). These different approaches to understanding public presence in social media are enlightening and not characteristically different from how political publics are shaped in the real and digital worlds. After all, political content is often disseminated through repetition, and political publics are created by identifying to a 'side' through parties and identities. Crowd-like reactions to political content seem to indeed be a large part of social media publics, especially if they are considered plebiscitary (Gerbaudo 2022). The latest research has theorised that TikTok has especially revolutionised the idea of networked publics and replaced them with clustered publics (Gerbaudo, 2024). Clustered publics do not revolve around users but rather around the content they consume. This is an intriguing viewpoint that places more importance on algorithms, which are a large factor in TikTok's success. Gerbaudo (2024) identifies the main consequences of clustered publics as the diminishment of the individual, the opaqueness of the logic behind algorithms and, finally, the fragmentation of the public sphere due to the interest-based logic of algorithmic suggestions.

TikTok's position as an algorithm-driven platform makes studying publics, whether networked or clustered, a complex endeavour. The publics present in comment sections of party-related accounts can be assumed to be formed by users with political agendas and interests. As algorithm-curated feeds are not an exact science, publics should also eventually clash in the arrays of TikTok. This intersection of publics and users' feeds creates a fertile ground for positional polarisation and the possibility of creating digital counter-movements through interacting with content rather than algorithms and filter bubbles.

3. Disruptive publics as an expression of polarisation in social media

Polarisation is often used as a catch-all term, making it important to define what type of polarisation is studied and how it is defined (Röllicke, 2023). In this study, polarisation is considered positional, which means that people have increasingly opposing stances on an issue (Kligler-Vilenchik et al., 2020). In the

context of this study, positions are projected through publics: left-wing publics clash with right-wing publics (that adhere to the Finnish party lines). However, there are more layers to modern polarisation than purely positional and ideological differences. Scholars (Iyengar et al., 2012) have proposed social identity as a large factor in the development of affective polarisation. Social identity is shaped by one's own beliefs and feelings of belonging to a group, which in turn may lead to apprehension about how one approaches other perceived social groups (Tajfel, 1978). As the notion of groups and identity is a strong factor in modern polarisation with regard to positional polarisation, this study approaches the phenomenon utilising the theoretical elements of subaltern counterpublics, which are inherently connected to the identities of people in public spheres (Fraser, 1990). Even though Fraser's (1990) classic essay is over 30 years old, the concept of counterpublics and the division of the public sphere into multiple competing publics and narratives remain as relevant as ever, perhaps even more so, through the increasing agency provided to social media users. However, it should be noted that this study utilises purely observational data from social media and therefore cannot delve deeper into questions of affective polarisation, which acts as further reasoning for the positional angle.

Counterpublics usually represent marginalised and opposing voices in the public sphere, which are the consequence of losing an equal status compared with a more dominating public (Fraser, 1990; Warner, 2002). However, in contemporary Western political discussion, right-wing parties and actors have adopted a discourse of marginalisation as a way to underline their populist solutions and station as an 'alternative' to older and more established parties. Right-wing politics have also gained much ground in Western societies, thus rendering their 'marginalisation' to not much else than a performance and a political tool. There have been suggestions that scholars should adopt defensive publics as the concept of describing the workings of the right-wing social media presence, due to their taking the focus away from the underlying power struggles of minorities and repressed voices (Jackson & Kreiss, 2023).

Moreover, mischaracterisations of hegemony limit the understanding and theoretical advancement of counterpublics (Venema, 2024). Other scholars have utilised a functional viewpoint (Reijven et al., 2020) that takes into account the self-designation of the right-wing movements as counterpublics by nature. The functional lens has been criticised for its inability to take the root ideas of opposing hegemonic cultural movements under scrutiny and for ignoring the importance of counterpublics as countercultural movements seeking to profoundly change society. Considering the valid questions and critiques, this study borrows the basics of analysing the (right-wing) counterpublic discourse while adapting the more power-oriented view of Jackson and Kreiss (2023). As defensive publics do not have the necessary analytical strength required for studying publics in a situation in which right-wing actors form an opposition and do not therefore hold governmental power, this study proposes disruptive publics as an alternative concept.

Whereas defensive publics are an extension of the right-wing's voice in the sense that they seek to impede liberal developments and hold onto power, disruptive publics aim to achieve societal change like counterpublics do, but from a much more societally powerful position. In the case of this study, disruptive publics try to advance right-wing ideologies through their presence in the comment fields of TikTok. Disruptive publics behave like typical modern social media publics: clustered and imagined more than through a networked connection. Clustered publics are formed around past user behaviour (Gerbaudo, 2024); thus, in this study, they revolve around political topics. Clustered publics mean that the network-based power structures of previous social media do not matter as much as the topics and influence exerted by popular accounts.

Some models that seek to identify counterpublic discourses have been developed in previous literature; these models are apt even after accounting for the counter-movements existing as disruptive instead. Toepfl and Piwoni (2015) and Lien (2024) utilise an effective analytic framework in their studies, which both aim to create an understanding of how counterpublics are formed through discursive patterns in social media comment sections. Reijven et al. (2020) examine discursive right-wing patterns in oratory situations. While Toepfl and Piwoni, and later Lien, posit their research to comment sections especially

related to news sites and media discourses, and Reijven et al. (2020) examine particular right-wing niches in speech situations, the current study intends to combine the multiple approaches and aims to create a framework through which populist right-wing (and other politically disruptive publics) may be studied in a deeply political social medial context. Therefore, the language and discourse - oriented framework provides an excellent viewpoint for studying TikTok's elusive comments. Toepfl and Piwoni (2015) elaborate on the discursive patterns of a counterpublic through the following:

- 1) Differentiation from the 'mainstream' public and challenging power structures
- 2) Argumentation against the status quo of the overlying public
- 3) Strengthening of identity among the supporters of the counterpublic.

Lien (2024) later adds explicitly stated ideology to the framework, thus expanding it to include the broader implications of the counterpublic's motives. Reijven et al. (2020) also discover clear structural claims used by right-wing counterpublics in their discourse that more or less match those presented by Toepfl and Piwoni (2015):

- 1) Key symbols
- 2) Coherence mechanisms (which, along with symbols, signify the shared identity of counterpublic actors)
- 3) Reformation of the public (which inherently challenges power structures and presents arguments against the dominating public)
- 4) Marginalisation (which can also be viewed as differentiation from the larger public).

Combining these two discursive frameworks of analysis creates a suitable lens through which to study the comments and mechanics that seek to create a disruptive public in a social media environment. The new framework combines the most descriptive aspects of the earlier methods while maintaining the scope of identification to publics, with the added focus of the right-wing methods found by Reijven et al. (2020). The 'counter' framework is updated to focus on the disruptive aspects of right-wing publics. Therefore, the analysis focuses on the following:

- 1) Identifying mechanisms

Identifying mechanisms may be symbols used to refer to a disruptive public or language that explicitly endorses a viewpoint or actor, such as a party or a party leader. As social media data are observational, only explicit references and endorsements may be included in this category.

- 2) Reformation

Reformation entails all the ways in which a disruptive public seeks to recalibrate a hegemonic public to its whims. This includes arguments against 'mainstream' policies and politics and other activities that seek to alter the status quo of the currently dominating political system. One of the main ways that reformation can be present in comment sections is through reminders of the past governmental period and comments about its achievements (or the lack of achievements).

- 3) Counterpositioning

Counterpositioning includes the ways in which disruptive commenters seek to underscore their differentiation from the 'mainstream'. This may be done by pointing out a 'marginalised' position or underscoring the ways in which a disruptive public's policies differ from those represented by the larger public(s). One clear way of counterpositioning is to label parties and leaders with words that refer to political extremes. Counterpositioning differs from reformation attempts through a more emotional and less rationalised approach; the differences in the language used create these different discursive patterns. Even though comments naturally have overlapping categorical possibilities, each comment is categorised

only through one of the mechanisms. This was done to simplify the analysis and to better illustrate which mechanisms were most favoured by commenters.

In addition to voices belonging to the disruptive publics, the comment sections should contain voices of positivity, such as assurance and cheering, which are typical political expressions on social media (Weismueller et al., 2022). These comments reinforce the public in power and try to dissuade disruptive commenters from keeping up with their discourse. As these comments are usually direct responses to opposing views, it is also in this intersection between disruptive and dominating publics that positional polarisation is visible. Comparing the volume of disruptive and defensive comments reveals whether positional rifts exist between commenters.

Building on the contributions of Toepfl and Piwoni (2015) and Reijven et al. (2020), this study uncovers the relationship between disruptive publics and publics in power present in the comment sections, which results in the first research question:

RQ 1: Through which discursive strategies (identifying mechanisms, reformation and counterpositioning) are disruptive right-wing publics present in TikTok comment sections?

The hypothesis of the study that disruptive publics exist is elaborated upon by studying how the different discursive categories are constructed using counterpublic-adjacent language. Thus, the second research question aims to clarify the precise language that makes up disruptive vocabulary and promotes disruptive discourses. Clarifying the language used is also useful in identifying keywords that contribute to the corpus of polarised terms, which leads to the second research question:

RQ 2: How are right-wing discursive patterns enacted through the vocabulary present in the comment sections, and are they constructed through polarising language?

The second research question is answered by analysing the top word choices of disruptive publics that do not relate to identification. The identifying mechanisms in comments rely on the explicit voicing of support; therefore, the linguistic composition of such comments is more straightforward than that in the other categories.

As the study examines a platform that has not been studied in this manner using a framework tailored precisely to the right-wing context, it aims to be a pioneering study that can be used by future scholars. The final research question and perspective of the study focus on the right-wing parties' videos and their comments. As the hypothesis of the study expects the discussion to be positionally polarised to blocs according to the government–opposition divide, the composition of the right-wing comment sections should also be examined. Due to the right being the hypothesised disruptive public, the analysis must be conducted solely through a similar keyword analysis used in answering the second research question, which results in discovering the linguistic choices commenters use while interacting with the right-wing public. This results in the final research question:

RQ3: What discursive patterns are present in right-wing parties' comment sections?

4. Background of the Finnish context

This study analyses the TikTok-based communication of political parties that occurred during the Finnish parliamentary elections in 2023. The Finnish political situation at the beginning of the election campaign period was tense. The acting government, which consisted mostly of left-wing parties such as the Social Democrats (SDP), Greens, the Left Alliance (LA), the Centre Party (CP) and the Swedish People's Party (SFP), was vehemently opposed by the large right-wing opposition, which was composed of the National Coalition Party (NCP), the Finns Party (FP), the Christian Democrats (CD) and Movement Now (MN). Each governing party has a clear identity, with the SDP being the oldest and largest and having the most moderate left-wing stance. The Greens represent the typical European green party that leans towards left-wing policies. The LA represents the radical left, while the CP has traditionally been seen as an agrarian

party. The SFP particularly represents the Swedish-speaking people of Finland. In the opposition, the NCP is an economy-first-characterised party leaning towards the right, while the FP represents the populist radical right. The CD represents traditional Christian values in politics, while the MN is a small, economy-centred party.

The FP was and is the most right-wing party in the parliament, following a similar trajectory as other European far-right parties, such as the Alternative für Deutschland (AfD) (Hansen & Leino, 2024). Compared with other Finnish parties, the FP is relatively new and is known as the leading populist party (Herkman, 2024). In the interest of this study, it should be noted that the FP is also the leading Finnish party in utilising TikTok (Sakki, 2025); thus, it holds more power on the platform than some of the more traditional parties.

During the Finnish parliamentary elections, there were many discussions about politicians using TikTok as a campaigning tool, and privacy- and security-related questions were raised widely among voters and in the media. However, this did not stop politicians from using TikTok in their campaigns. About 40% of Gen Z candidates and 32% of millennial candidates utilised TikTok (Strandberg et al., 2024), which indicates that the platform is widely adapted. This is affected by the need to reach young voters, as TikTok's user base consists overwhelmingly of users under the age of 35 (DataReportal; TikTok, 2025). The parties used TikTok more sparingly, and while most of the largest parties were present on the platform, some of the older and more established parties (e.g. the CP) were notably absent, which is not unheard of in a European setting (Gamir-Ríos & Sánchez-Castillo, 2022). Party TikTok differs from politicians' own TikTok in the sense that parties represent the ideological voice much more prevalently than single politicians. Even though candidates have to adhere to the parties' rules, they have much more leeway in creating content that can create a larger following. This study included comments from party TikToks only to ensure the manageability and coherence of the dataset. Party TikTok also has the advantage of being a more ideological outlet; therefore, the discussion is geared more towards the party and its ideology instead of the more personalised talking points brought up by single candidates. In the interest of this study, the ideological prevalence makes the parties' accounts the more interesting and relevant object of research.

5. Data and methods

The data analysed in this study consisted of TikTok comments received by the parties that were present on TikTok before the Finnish parliamentary elections in the spring of 2023. Data collection was conducted during the campaign period of the elections, specifically after each campaign week, starting from a month before the election day on April 2, 2023. This provided the study with a multi-faceted dataset that included only the newest comments and discussions. In total, the dataset consisted of 3,813 comments on 58 videos from five different party accounts. One of the LA's videos went viral and gathered over 2,000 comments and was thus excluded from the analysis. This was conducted to avoid the overt skewing of data towards any particular party.

As the formation of social media publics often focuses on parties and their ideological alignments, the composition of the government during the election campaign was taken into account. The government coalition in the 2019–2023 term consisted of SDP, the LA, Greens, the CP and SFP. The Finnish opposition during the elections in 2023 consisted of the FP, NCP, CD and MN. Therefore, the power scales in Finnish politics were heavily leaning towards the left, which makes the setting an ideal point in time for this study: The right-wing parties were in a position to utilise counterpublic rhetoric to try and gain back the power lost in the elections in 2019, thus making the context ripe for the emergence of disruptive publics.

A Python-based tool called TikTokCommentScraper, developed by GitHub user cubernetes (Cubernetes, 2023), was used to acquire the comments from each video. TikTok currently has an official research API available, but the data collection period took place before the research track was released in

Europe, which resulted in the use of an unofficial tool. TikTok's Terms of Service were complied with during the data collection period, and individual comments were handled anonymously with care.

The analysis phase consisted of a twofold process, with the singular TikTok comments being the first subject of analysis. The framework, built by combining the contributions of Toepfl and Piwoni (2015) and Reijven et al. (2020) in identifying the discursive patterns of counterpublics, was used to classify the comments and unveil how disruptive publics are formed. The resulting three-category framework was found to be effective. It should be noted that even though there was some overlap between the categories, a single comment could only be part of one of the categories. This made the analysis more straightforward and practical, as an average comment on TikTok rarely contained different sentiments due to its length. TikTok comments were categorised as belonging to a disruptive public if they matched any of the following discursive patterns:

- 1) Identification to a disruptive public either by voicing explicit support or utilising clear symbols,
- 2) Reformation-driven commentary that seeks to upset the existing balance of power through counterarguments or other reasonable observations, and
- 3) Counterpositioning through either expressing a stance that aims to only express opposition or attacking political identities belonging to the governing body.

The main difference in the study was between the government parties and the parties belonging to the opposition. This created ideological sides through which discourse patterns were studied. Even though the division between the government and the opposition is at best rudimentary, it aids in the core hypothesis of the study: There exist disruptive publics that are predominantly right-wing, and they clash especially with the left-driven government. The government and opposition parties also align fairly well with liberal and conservative ideologies, with the government parties having more liberal policies than their oppositional counterparts. However, to study the differences between the right-wing opposition parties, they were also analysed through the same language-based lens as the discourse analysis that focused on the governmental parties.

Intercoder reliability tests were conducted to ensure the robustness of the analysis. Cohen's kappa was used to assess the reliability of the analysis. A researcher unfamiliar with the dataset was introduced to the coding scheme and given a portion of the data that represented 10% of all the comment material. After comparing the results, the kappa value obtained was $K = 0.71$, which denotes substantial agreement.

To deepen the analysis and provide a clearer focus on the construction of disruptive publics, the comments were studied further to identify the actual language used in voicing the discursive patterns. This was achieved by analysing the keywords used by commenters identified as disruptive in each discursive category, with an emphasis on the comment categories of reformation and counterpositioning. The method chosen for studying the top word choices of defensive publics involved analysing their raw term frequency (TF), which, even though simple, works well in keyword extraction (Ushio et al., 2021). As the analysis was intended to present an approximate view of the language used, no weighted measures were used. Focusing on only the raw keyword counts made a more general analysis possible, without giving much importance to rare words or phrases and with volume acting as the guiding principle. As the dataset consisted of social media data, which had a tendency to be short and concise, a phrase-oriented approach was also discarded in favour of the words-first method. As an important note, emojis were only accounted for during the coding phase, as the script used in the TF analysis could not identify different emojis.

To carry out the TF analysis, a custom Python script utilising basic Python libraries along with some third-party utilities was created. Of the third-party repositories, Pandas (The Pandas Development Team, 2024) was used to make interaction with Excel files possible. SpaCy (Honnibal et al., 2020) was used for tokenisation and lemmatisation of the words, in addition to identifying and filtering out Finnish stopwords. This method was used to answer RQ 2 and 3, with the latter dismissing the coded categorisation present in the TF analysis of RQ 2.

6. Results

Table 1 presents the total number of datasets. Some of the governing parties evoked comment volumes that numbered in the thousands, while others remained steadily at around a hundred comments. This indicates that some parties had either a more pronounced presence on TikTok or that their content went viral more often than their counterparts. As the LA and the Greens were of comparable sizes, the LA's large TikTok presence and attention could be attributed to a number of other factors not present in the Greens' videos. The Greens and the LA posted almost the same amount of content, but the LA garnered the most comments by a wide margin, even though one video's overwhelming number of comments was not taken into account in this study.

Table 1. Volume of videos and comments per party and average comments per video.

		Videos	Comments	Avg comments/video
	SFP	11	108	9.8
Government	Greens	18	809	44.9
	Left Alliance (LA)	17	2370	139.4
		46	3287	71.5
Opposition	Finns Party (FP)	2	101	50.5
	National Coalition Party (NCP)	10	425	42.5
		12	526	43.8

On the side of the opposition, the FP posted only two videos during the campaign period that had little to do with the elections. This differs from the presence of the party in the Finnish social media scene, with FP politicians being at the forefront of TikTok politics, partly due to the party's quick adaptation of the platform (Sakki, 2025). The NCP attracted some attention, with a relatively small number of videos. However, this seems to be a consequence of the party disabling the comment sections of some of the videos.

The first research question aims to identify how disruptive right-wing publics were present in the TikTok comment sections. The results of the analysis indicate that disruptive right-wing publics formed on TikTok comments were present in all governing parties' comment sections. The analysis yielded clear disruptive patterns in the government parties' comment fields, even though the comment volumes varied greatly from party to party. It should be noted that some parties had videos that had their comment sections disabled, and the comment data were not retrievable. This was in itself a probable attempt at hindering unwanted comments, spam or trolling.

The comments that were present in the government's videos had an even distribution in the 'regular' and disruptive categories, as presented in Table 2. The largest categories were comments that reinforced the government parties' position and other discussions. These categories made up 57% of the total comment volume, which indicates that non-disruptive comments and elements were well represented in the dataset on the government's side. The comments in the 'other'-category related to more general politics or lengthy discussions between commenters that did not take a stance but focused only on debates between users. Some of the clear themes of comments in the 'other' category included comments that included users engaging in discussions not directly related to Finnish politics (or not related to any political topics), memetic behaviour and illegible comments.

Disruptive discussions were driven by commenters who took a counterpositional stance, with identifying mechanisms being used as the second most popular way of disruptive discourse. Both categories had similar comment shares, with counterpositioning having a 16% share and identifying

comments having a 15% share. Calls for reformation were less prevalent, even though policy changes are one of the main goals of disruptive movements.

In sum, the comment sections were polarised to an extent. Disruptive commenters took to the videos in large volumes, with a contingent of commenters either supporting the party directly or arguing against disruptive commenters. The large volume of discussions belonging to the ‘other’ category indicates that along with political chatter related to the parties, TikTok comments were also used in a way that did not directly relate to taking a stance. As TikTok is used widely by many users sharing content with their friends, for instance, more mundane discussions were an expected result.

Table 2. Reinforcing and disruptive comments on government parties’ TikTok videos.

		Total	Reinforcing	Reformation	Counterposition	Identifying	Other
Left Alliance	LA	2370	642 (27%)	216 (9%)	410 (17%)	464 (20%)	638 (27%)
Greens	Greens	809	274 (34%)	157 (19%)	101 (12%)	14 (2%)	264 (33%)
SFP	SFP	108	28 (26%)	24 (22%)	14 (13%)	24 (22%)	18 (17%)
		3287	944 (29%)	397 (12%)	525 (16%)	502 (15%)	920 (28%)

The LA was the most commented-on party by far, and the comment types varied, as shown in Table 2. Even though the party saw a substantial amount of support and reinforcing comments, the comment sections were also rife with disruptive discourse. Commenters identified with disruptive actors and positioned themselves as far from the party as they could, while comments that called for reformation were clearly the least common of the comment categories. This indicates that the main efforts of disruptive commenters went towards distancing themselves as much as possible from the LA and their politics. Comments categorised as ‘other’ also represented a large part of the comments LA received; these were mainly discussions between users that went to great political depths without reaching a disruptive or reinforcing tone.

The second largest comment volume was obtained by the Greens, as presented in Table 2. Similar to the LA, the Greens’ comment sections were mostly composed of either comments in the ‘other’ category, with a share of 33%, or reinforcing comments consisting of over a third of the total comment volume (34%). The ‘other’-category contained chatter that indicated that many of the videos had been shared, and thus users were tagged in the comments. A clearly different trend compared with the other government parties was that there were more comments that aimed at reforming the public, while identifying with disruptive causes was at a lower level. Counterpositioning was also a prevalent category, although less so than with the LA. The Greens’ comment categories appeared to focus more on political issues instead of identity-based right-wing activity, which acts as a foil towards the LA’s comment sections’ composition.

The SFP was the final government party included in the study. The party had, by far, the lowest comment volume, but a comparison of the percentages revealed that disruptive publics were as present on their pages as on those of other government parties. On the SFP’s videos, over half of the commenters used disruptive discursive tactics. The volume of other discussions was significantly lower on the SFP’s videos than on the other parties’ videos, while reinforcing comments accounted for 26% of the comment volume. Out of the three government parties, the SFP had the most balanced comment sections, with only the ‘other’ category remaining significantly lower than the other parties.

The second research question of the study aimed to identify the keywords utilised in different categories in the government parties' videos. This was conducted through a raw TF analysis, which yielded keyword results that were cleaned of stopwords, wrongly lemmatised words and non-functional, interjectional keywords. The results indicated some clear definitions for each of the disruptive discourse categories in the governing parties' videos. Among all the keywords, the most common keyword was 'ps', which indicates an identification with the FP, as 'ps' is the lowercase version of its Finnish abbreviation. The LA was also heavily featured in the most common keywords, with 'vas', 'vasemmisto' and 'li' referring to either the party or its chair. The results of the TF analysis for the three governing parties are presented in Table 3, with translations of the keywords provided in brackets after each Finnish keyword. To preserve both space and increase the clarity of the results, the individual comment volumes by party and category are included as an appendix with tables A1, A2 and A3.

Table 3. Keywords and their term frequency across categories in government-posted videos.

All		Reinforcing		Reformation	
ps [FP]	418	vas [left, shortened]	67	hallitus [government]	37
vasemmisto [left]	134	li	62	tehdä [do]	31
saada [get]	107	vasemmisto [left]	46	saada [get]	31
Suomi [Finland]	95	maria	35	velka [debt]	29
tehdä [do]	91	ihana [wonderful]	31	vihreä [green]	29
li	89	tehdä [do]	26	vasemmisto [left]	27
voida [can]	86	vasemmistoliitto [Left Alliance]	24	raha [money]	26
vas [left, short]	85	saada [get]	23	vero [tax]	25
vihreä [green]	82	slay	22	haluta [want]	24
Counterpositioning		Identifying		Other	
vasemmisto [left]	46	ps [FP]	394	saada [get]	39
vihreä [green]	23	kokoomus [NCP]	23	voida [can]	31
puolue [party]	21	Suomi [Finland]	14	Suomi [Finland]	29
vassari [leftie]	21	oikeisto [right]	12	ihminen [person]	27
kommari [commie]	21	äänestää [vote]	11	pitää [like]	27
paska [shit]	20	persu [FP member]	10	työ [work]	25
Suomi [Finland]	17	liike [movement]	8	tehdä [do]	24
kommunisti [communist]	14	ääni [a vote]	8	haluta [want]	20
feministi [feminist]	14	perussuomalainen [FP member]	7	puhua [talk]	19

Reinforcing keywords mostly focused on single comments that emphasised the party that they sought to reinforce. This featured many comments that consisted only of the party's name and an affirmative emoji, such as a heart. The other favoured ways of reinforcing comments included invoking the party leader's name (as most of the videos featured the leaders) and using TikTok slang, such as 'slay', to emphasise their support of the party or the ideology. Both the Greens and LA had a strong reinforcing emphasis on their party leaders, while the Greens also garnered support for feminism and the LA received reinforcing comments that campaigned actively against right-wing parties.

Calls for reformation focused on criticising the government's previous tenure, with government being the most common keyword, with debt, money and tax also being important words for commenters proclaiming their disappointment with the government's actions. Money and debt were a cause for concern for a few commenters, as economic discussions are a staple in Finnish social media discourse.

On the parties' side, the Greens received comments that focused on taxes, the LA received comments related to debt, and the SFP gathered resistance against compulsory Swedish studies in Finland. The following comments are examples of the category, with the Finnish parts of the comments translated into English where applicable, indicated by brackets.

'[There will not be a future while a party as tired as this leads. This party sucks away the prosperity of the people.]'

'[were you planning to take 140 billion in debt again during the next governing period?]'

'[maybe it's high time to let go of the Swedes' shackles of power -.- you're not needed]'

Counterpositioning was evident in the comments differentiating themselves from the left and/or the government, usually with the help of 'communist' labels. Uncivil language, such as 'shit', was also present, even though the results indicated that there was a lack of aggression in the language used. It should be noted that the language used in counterpositioning was polarising and seemed to function as hyperbolic resistance towards the governing parties and their ideologies, with labelling and hypothetical scenarios being some of the tools used to create and deepen this division. All of the government parties were different in how they were opposed in this category: the Greens received comments that seemed to focus on feminism and women, the LA attracted commenters that labelled the party as communist, whereas the language question of Swedish plagued SFP in this category as well. All of the differences adhere at least somewhat to the parties' stereotypes in Finland.

'[Communism] made me do it'

'[since you like socialism so much maybe you can move to North Korea or Cuba and see how things work there]'

'[now there was some shitty populism]'

Identification with a disruptive public was less nuanced and often led to users spamming 'ps' comments across the comment sections. This clear indicator of support for the FP was usually accompanied by an emoji, such as a heart or the Finnish flag. The other keywords related to identification were either additions to the FP sentiment, with words such as Finland and vote being in the top keywords, or other parties' supporters identifying with other parties, such as the NCP. The Greens received a very low amount of comments in this category, whereas the LA received almost 400 comments that appeared to identify with the Finns Party. Some commenters that favoured the 'ps' comments were also noticeably present in SFP's comment sections.

Keywords from the 'other' category focused more on all-around political talk, which was often a back-and-forth discussion between two users who engaged with one another. The topics handled by commenters in this category included meta-level discussions on politics and often illegible comments that had no discernible logic or reason behind them.

The final research question focused on studying right-wing parties. Analysing the keywords present in the comment sections of the two opposition parties (FP and NCP) revealed several key notions that could not have been recognised only through the disruptive lens. The comments for the opposition parties were not categorised because the analysis method focused on the discursive tactics of the right, but they were handled as a whole, which made the themes of the videos more important. The FP had comments on only one video, which had a 'woke' theme, and all the keywords were related to the theme and discussions surrounding it, such as 'university', 'professor', 'ideology' and 'speak'. Therefore, the prevalence of ps comments on other videos was disproportional compared with the FP's own presence.

Table 4. Keywords and their frequency in right-wing opposition-posted videos by party.

Finns Party		National Coalition Party	
mieli [mind]	15	kokoomus [NCP]	59
sanoa [say]	15	velka [debt]	45
yliopisto [university]	13	ps [FP]	42
woke	12	voida [can]	36
voida [can]	12	talous [economy]	30
ihminen [person]	9	julkinen [public]	29
nimenomaan [just so]	8	saada [get]	28
pitää [like]	7	valtio [state]	28
ongelma [problem]	7	hallitus [government]	24
puhua [talk]	7	pitää [like]	21
professori [professor]	7	ottaa [take]	20
saada [get]	6	tehdä [do]	18
mielipide [opinion]	5	ben	17
oikeisto [right]	5	yksityinen [private]	17
sellainen [that kind]	5	raha [money]	16
ideologia [ideology]	5	laina [loan]	16

The other opposition party, the NCP, had more videos, but the phenomenon of ‘ps’ comments emerged even in the right-wing opposition. Commenters that identified with the FP were also present on the NCP’s videos in force. The users targeted the NCP for turning off the comments because of its criticism of the FP. The other keywords present indicated clear inclinations towards financial topics, such as ‘debt’, ‘economy’ and ‘money’. This is in accordance with the party itself, as the NCP aims to profile itself through its financial prowess throughout different elections.

‘[Good joke. An even better joke is that in your newest video, you mock the Finns and shut down the comment field :D]’

‘[NCP has to take responsibility for Finland. Green socialists can’t do it. We, the bourgeoisie, care about the next generations. Pay the debts. No more debt.]’

‘[Finland has low-income people who have to be supported. If you agree, you probably wouldn’t vote for NCP...]’

Compared with the government parties, the NCP appeared to gather a similar stream of comments, both for and against. This is a probable result of the party’s longstanding tenure in the government, along with an anti-elite sentiment emanating from the FP side of the spectrum. The right-wing side of the comments did not appear to host any comparable left-wing version of the disruptive public phenomenon, as indicated by the lack of comments promoting left-wing parties or talking points. Singular comments challenged the topics raised by the right, mainly from an economic point of view, but the amount was not comparable with the comment volumes received by the left.

7. Discussion

This study aimed to elucidate the phenomenon of disruptive right-wing publics present in TikTok’s comment fields during the Finnish elections in 2023. The results indicate a strong right-leaning disruptive presence on TikTok. This was especially visible on the LA’s videos, but the other government parties were not spared from the influx of disruptive comments, either. However, there does not seem to be a concise bloc of the disruptive right-wing public, as evidenced by the presence of ‘ps’ comments on the

opposition-based NCP's videos in addition to those on the government's videos. At least the commenters who supported the populist FP utilised disruptive discursive strategies without a comparable response from the left side, as evidenced by the comment vocabulary on their own videos. TikTok's comment sections exhibit signs of positional polarisation through the division between reinforcing comments and disruptive comments, both of which interact and intermingle with each other.

The most notable finding of the study is the presence of a strong identification with the FP, even on the right-wing side, as evidenced by the large number of 'ps' comments on the NCP's videos. This shows that there does not seem to be any collective right-wing presence on Finnish TikTok but rather a strong disruptive presence of the FP. The disruptive public created by FP-identifying commenters seems to be one that is against all traditional parties, consistent with previous findings (Herkman et al., 2024).

However, unlike Gerbaudo's (2024) idea about clustered publics, clustering around political topics does not fragment discussions to echo chamber-like comment fields. Political discussion on parties' videos seems to be dominated by only one party, which also had an effect on how vehemently commenters defended against these disruptive forces. Political TikTok resembles a singular public, with the lines between parties not as deep as those between different topical interests. As TikTok publics cluster together, users who are more inclined to political commentary are bound to find themselves discussing politics from different viewpoints.

Defensive commenting created positional polarisation, which was somewhat evident in the different shares of comments. Especially in the LA's comment sections, the disruptive drive to distance oneself from the party was obvious. This was also reflected in the language used by the commenters. Counterpositioning was accomplished through labelling and aggressive language, both of which function as catalysts for polarisation visible in interactions between users. This negative sentiment does not differ from other older platforms (Kligler-Vilenchik et al., 2020) but is in accordance with other social media. As the LA clearly represents a larger ideological monolith of the left to be opposed by the similarly monolithic right-wing (Herkman et al., 2024), it can be argued that positional polarisation increases because of this generalisation of identity and ideology rather than having firm roots in real-life dynamics.

Moreover, the advantages of TikTok seem to be affected by disruptive behaviour. The strong presence of FP-commenting users led to some parties disabling the commenting function, at least according to the right-wing commenters' own assessment of the situation. The spam-esque nature of some of the comments suggests that comment sections were indeed contested by repetitive behaviour. Although Zulli and Zulli (2022) present imitation publics mainly as a feature of TikTok's video side, the memetic advantages of the platform are also functional in the comments. Therefore, the spam-like repetition could also be a feature of an imitation public, in addition to being a cornerstone of the right-leaning disruptive public.

The parties that faced the most disruptive comments also had significant levels of reinforcing comments. This indicates that while disruptive actors find their way to the TikTok comment sections, defenders rise to hit back with more supporting comments and rebuking disruptive arguments. In addition, the language used by commenters that promoted a counterpositional stance utilised dyadic discursive patterns, with a clear split between the left and the right, with extreme labels being used en masse. As social media publics move towards these positional and affective clashes, it is worth revisiting Gerbaudo's (2022) idea of reactive democracy and low-level participation as one of the latest developments of social media. Users react to TikTok videos with partisan comments, with crowd behaviour also forming a part of disruptive publics. Therefore, it can be argued that disruptive publics and the defensive comments opposing them create a plebiscitary space (Gerbaudo, 2022) in which reactions are the most important commodity.

Another aspect of the study that mandates further consideration is whether the parties that were in a position of power received more disruptive attention due to having a government responsibility or whether disruptive commenting was meant to contest the 'ownership' of the platform and political topics. As topics are the fuel for TikTok's different sides (Maddox & Gill, 2023), the comment sections should

naturally contain political chatter. The situation that Finnish political TikTok had during the elections did not have a clear leading account on the parties' side, although the FP was clearly the pioneer in Finnish political TikTok (Sakki, 2025). Therefore, the disruptive narratives might have been an attempt to establish right-wing political stances as the underlying mainstream opinions by simulating a crowd-like presence in the comment sections and thus gaining ownership of political topics. Thus, disruptive publics resemble more of a crowd that is instigating a mob rule (Gerbaudo, 2022) than a traditional public. However, as the actions of the disruptive public also resemble a machinated campaign, the description of a public is warranted.

This study contributes important viewpoints on how political communication, publics and polarisation all converge on a platform favoured by a large contingent of users. An approach focusing on disruptive publics revealed that, from an observational lens, comment sections developed a polarised arena where disruptive comments were met with scrutiny, constituting positional polarisation and elevating negative sentiment, not unlike traditional social media platforms (Kligler-Vilenchik et al., 2020). Identity served as a great divider, as is often the case in modern polarisation (Iyengar et al., 2012), with commenters adapting to a partisan view, focusing on the split between left and right. The right side of the comments appeared to be fractured as well, with vocabulary utilised in the government parties' videos finding its way in the right-wing bloc. This indicates that the right-wing disruptiveness that clearly emerged from the comments was not homogenic but rather divided between the right-wing parties. Polarising language was common among the comments. This supports other scholars' findings on right-wing discursive patterns, especially when taking into account the right-wing tendency to position itself as an antithesis to the traditional political order (Herkman et al., 2024), which partly explains the differences between the opposition parties. Disruptive publics are publics that are particularly reactive in their actions, constituting a plebiscitary (Gerbaudo, 2022) public, but a public nonetheless.

This study has some limitations. First, gathering data from TikTok was, at best, unreliable at the time of data collection, and some data might have been missing. In addition, some parties disabled the commenting function, which affected the total sum of comments. Second, parties operate on TikTok at a much different level than single candidates. This affected how many comments the videos could receive and the overall campaigns. If the party allows candidates to campaign on TikTok by themselves, the party account remains silent as it hands over the reins of content creation to candidates. However, a view that focused on the parties was productive through the clear presence of ideological lines and a focus on campaigning through traditional means, which directed the discussion towards a more political agenda. The structure of power and agency was also questioned throughout the study, as evoked by Jackson and Kreiss's (2023) study. The authors are confident that the study respects and develops the theory of social media publics while taking part in the larger discussion on publics and polarisation in social media. Finally, future studies could examine the elusiveness of the true attitudes behind and affected by the comments. Observational social media data do not provide insight into users' feelings and experiences; this would require a study that focuses on the users themselves.

For future studies, researchers could consider TikTok comments as a more important area of interest. TikTok research seems to focus mainly on the video content posted while disregarding the more traditional advantage of commenting. This creates a large gap in the research, as it is easier to discern attitudes and trends from how users themselves react to content. Nuanced discussions on the platform may influence political stances, and even though the algorithmic nature of TikTok inspires researchers to seek answers from feeds and videos, there is ground to be covered in the more whimsical comment sections often populated by future voters.

It should be noted that by the time this study was published, TikTok would have evolved, and the discussions surrounding the platform would have reached new levels of scrutiny towards its influence on Europeans. As platforms evolve over time, it is important to study both posted content and users' reactions and behaviour. This study shows that there is work to be done in examining how publics are formed on TikTok and how these publics inspire disruptions.

References

- Battista, D. (2023). For better or for worse: Politics marries pop culture (TikTok and the 2022 Italian elections). *Society Register*, 7(1), 117–142. <https://doi.org/10.14746/sr.2023.7.1.06>
- Brown, Y., Pini, B., & Pavlidis, A. (2022). Affective design and memetic qualities: Generating affect and political engagement through bushfire TikToks. *Journal of Sociology (Melbourne, Vic.)*, 144078332211102-. <https://doi.org/10.1177/14407833221110267>
- Cervi, L., Tejedor, S., & Blesa, F. G. (2023). TikTok and political communication: The latest frontier of politainment? A case study. *Media and Communication (Lisboa)*, 11(2), 203–217. <https://doi.org/10.17645/mac.v11i2.6390>
- Cubernetes. (2023). TikTokCommentScraper. GitHub. Retrieved from <https://github.com/cubernetes/TikTokCommentScraper>
- Fraser, N. “Rethinking the public sphere: A contribution to the critique of actually existing democracy.” *Social Text*, no. 25/26, 1990, pp. 56–80, <https://doi.org/10.2307/466240>.
- Gamir-Ríos, J., & Sánchez-Castillo, S. (2022). The political irruption of short video: Is TikTok a new window for Spanish parties? *Communication & Society*, 35(2), 37–52. <https://doi.org/10.15581/003.35.2.37-52>
- Gerbaudo, P. (2022). Theorizing reactive democracy: The social media public sphere, online crowds and the plebiscitary logic of online reactions. *Democratic Theory*, 9(2), 120–138. <https://doi.org/10.3167/dt.2022.090207>
- Gerbaudo, P. (2024). TikTok and the algorithmic transformation of social media publics: From social networks to social interest clusters. *New Media & Society*. Prepublished December 19, 2024. <https://doi.org/10.1177/14614448241304106>
- González-Esteban, J. L., Lopez-Rico, C. M., Morales-Pino, L., & Sabater-Quinto, F. (2024). Intensification of hate speech, based on the conversation generated on TikTok during the escalation of the war in the Middle East in 2023. *Social Sciences (Basel)*, 13(1), 49. <https://doi.org/10.3390/socsci13010049>
- Grantham, S., Cervi, L., & Iachizzi, M. (2025). Double tap democracy: Political authenticity in the TikTok era. *Media International Australia Incorporating Culture & Policy*. Prepublished March 19, 2025. <https://doi.org/10.1177/1329878X251327232>
- Hansen, M. A., & Leino, M. (2024). Conditional single-issue political entrepreneurship: The impact of education and attitudinal predictors on support for the Finns Party. *Electoral Studies*, 92, 102874. <https://doi.org/10.1016/j.electstud.2024.102874>
- Herkman, J. (2024). “The loss of the populist radical right in the 2024 European parliament elections in Finland.” In G. Ivaldi & E. Zankina (Eds.), *2024 EP elections under the shadow of rising populism*. European Centre for Populism Studies. <https://doi.org/10.55271/rp0069>
- Herkman, J., Sibinescu, L., & Palonen, E. (2024). Finland: Populist polarisation of the Finnish political communication. In E. Palonen & J. Herkman (Eds.), *Populism, Twitter and the European public sphere* (pp. 85–113). Springer International Publishing AG. https://doi.org/10.1007/978-3-031-41737-5_4
- Hokkanen, J. (2022). Ja jos se ei kelpaa algoritmeille niin sitten ei kelpaa. Se siitä.: Datakäytännöt nuorten poliitikkojen arjessa. *Politiikka*, 64(2). <https://doi.org/10.37452/politiikka.109128>
- Honnibal, M., Montani, I., Van Landeghem, S., & Boyd, A. (2020). spaCy: Industrial-strength Natural Language Processing in Python. <https://doi.org/10.5281/zenodo.1212303>
- Isotalus, P. (2017). Mediapolitiikko. Gaudeamus.
- Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, not ideology: A social identity perspective on polarization. *Public Opinion Quarterly*, 76(3), 405–431. <https://doi.org/10.1093/poq/nfs038>
- Jackson, S. J., & Kreiss, D. (2023). Recentering power: Conceptualizing counterpublics and defensive publics. *Communication Theory*, 33(2–3), 102–111. <https://doi.org/10.1093/ct/qtad004>
- Kligler-Vilenchik, N., Baden, C., & Yarchi, M. (2020). Interpretative polarization across platforms: How political disagreement develops over time on Facebook, Twitter, and WhatsApp. *Social Media + Society*, 6(3), Article 2056305120944393. <https://doi.org/10.1177/2056305120944393>
- Lien, A. N. (2024). A battle for truth: Islam-related counterpublic discourse on Scandinavian news media Facebook pages. *New Media & Society*, 26(2), 839–858. <https://doi.org/10.1177/14614448211068436>
- Maddox, J., & Gill, F. (2023). Assembling “sides” of TikTok: Examining community, culture, and interface through a BookTok case study. *Social Media + Society*, 9(4). <https://doi.org/10.1177/20563051231213565>
- McCrory, A., Best, P., & Maddock, A. (2022). “It’s just one big vicious circle”: Young people’s experiences of highly visual social media and their mental health. *Health Education Research*, 37(3), 167–184. <https://doi.org/10.1093/her/cyac010>
- Mendoza, M. E. H. (2022). Philippine elections 2022: TikTok in Bongbong Marcos’ presidential campaign. *Contemporary Southeast Asia*, 44(3), 389–395.
- Moir, A. (2023). The use of TikTok for political campaigning in Canada: The case of Jagmeet Singh. *Social Media + Society*, 9(1), 205630512311576-. <https://doi.org/10.1177/20563051231157604>
- Politics, governments, and elections*. TikTok Advertising Policies. (October 2025). Retrieved October 24, 2025. <https://ads.tiktok.com/help/article/tiktok-ads-policy-politics-government-and-elections>
- Quick, M., & Maddox, J. (2024). Us, Them, Right, Wrong: How TikTok’s Green Screen, Duet, and Stitch help shape political discourse. *First Monday*, 29(3). <https://doi.org/10.5210/fm.v29i3.13360>

- Reijven, M. H., Ross, M., & Dori-Hacohen, G. (2020). Conspiracy, religion, and the public sphere: The discourses of far-right counterpublics in the U.S. and South Korea. *International Journal of Communication*, 14, 5331–5350.
- Röllicke, L. (2023). Polarisation, identity and affect - conceptualising affective polarisation in multi-party systems. *Electoral Studies*, 85, Article 102655. <https://doi.org/10.1016/j.electstud.2023.102655>
- Sakki, I. (2025). Unveiling populist tactics on TikTok: A multimodal critical discursive psychology approach. In *Imagery of hate online* (pp. 153–171). <https://doi.org/10.11647/OBP.0447.07>
- Sihvonen, T., & Manninen, V. (2024). TikTok-journalismi Suomessa. *Media & viestintä*, 47(1). <https://doi.org/10.23983/mv.137083>
- Strandberg, K., Carlson, T., & Snickars, W. (2024). Nuoret ehdokkaat ja kansalaiset sosiaalisessa mediassa. In Kestilä-Kekkonen, E., Rapeli, L. & Söderlund, P. (Eds). *Pääministerivaalit polarisaation aikakaudella - Eduskuntavaalitutkimus 2023*. Oikeusministeriön julkaisuja, Selvityksiä ja ohjeita 2024:10
- Tajfel, H. (1978). *Differentiation between social groups : Studies in the social psychology of intergroup relations*. Academic Press.
- The Pandas Development Team. (2024). pandas-dev/pandas: Pandas (v2.2.3). Zenodo. <https://doi.org/10.5281/zenodo.13819579>
- Toepfl, F., & Piwoni, E. (2015). Public spheres in interaction: Comment sections of news websites as counterpublic spaces: Public spheres in interaction. *Journal of Communication*, 65(3), 465–488. <https://doi.org/10.1111/jcom.12156>
- Ushio, A., Liberatore, F., & Camacho-Collados, J. (2021). Back to the basics: A quantitative analysis of statistical and graph-based term weighting schemes for keyword extraction. EMNLP 2021–2021 Conference on Empirical Methods in Natural Language Processing, Proceedings, 8089–8103. <https://doi.org/10.18653/v1/2021.emnlp-main.638>
- Venema, N. (2024). Counterpublics and structural change in media and politics: A theoretical framework on transformations within a long-term historical perspective. *Javnost (Ljubljana, Slovenia)*, 31(2), 231–252. <https://doi.org/10.1080/13183222.2024.2342216>
- Warner, M. (2002). Publics and counterpublics. *Public Culture*, 14(1), 49–90. <https://doi.org/10.1215/08992363-14-1-49>
- We Are Social, DataReportal, & Kepios, & Meltwater. (2025). Distribution of TikTok users worldwide as of February 2025, by age and gender [Graph]. In Statista. Retrieved July 15, 2025, from <https://www.statista.com/statistics/1299771/tiktok-global-user-age-distribution/>
- Weismueller, J., Harrigan, P., Coussement, K., & Tessitore, T. (2022). What makes people share political content on social media? The role of emotion, authority and ideology. *Computers in Human Behavior*, 129, 107150. <https://doi.org/10.1016/j.chb.2021.107150>
- Zhou, S., Yang, X., Wang, Y., Zheng, X., & Zhang, Z. (2023). Affective agenda dynamics on social media: Interactions of emotional content posted by the public, government, and media during the COVID-19 pandemic. *Humanities & Social Sciences Communications*, 10(1), Article 797. <https://doi.org/10.1057/s41599-023-02265-x>
- Zulli, D., & Zulli, D. J. (2022). Extending the internet meme: Conceptualizing technological mimesis and imitation publics on the TikTok platform. *New Media & Society*, 24(8), 1872–1890. <https://doi.org/10.1177/1461444820983603>

Appendix

Table A1. Keywords and their term frequency across categories in Left Alliance -posted videos.

All		Reinforcing		Reformation	
ps [FP]	398	vas [left, shortened]	67	hallitus [government]	28
vasemmisto [left]	133	li	62	vasemmisto [left]	27
li	89	vasemmisto [left]	46	velka [debt]	26
vas [left, short]	83	vasemmistoliitto [Left Alliance]	24	raha [money]	19
saada [get]	74	tehdä [do]	22	haluta [want]	18
tehdä [do]	71	kokoomus [NCP]	20	tehdä [do]	18
Suomi [Finland]	67	persu [FP member]	18	li	15
puolue [party]	65	ps [FP]	17	saada [get]	14
haluta [want]	64	ihana [lovely]	16	puolue [party]	13
Counterpositioning		Identifying		Other	
vasemmisto [left]	46	ps [FP]	37	saada [get]	39
kommari [commie]	21	kokoomus [NCP]	21	voida [can]	31
vassari [leftie]	20	Suomi [Finland]	12	pitää [like]	29
paska [shit]	19	oikeisto [right]	11	Suomi [Finland]	27
puolue [party]	17	äänestää [vote]	10	ihminen [person]	27
Suomi [Finland]	17	persu [FP member]	8	tehdä [do]	25
vihreä [green]	14	ääni [a vote]	8	puhua [talk]	24
kommunisti [communist]	12	suomi [finland]	7	työ [work]	20
haluta [want]	11	perussuomalainen [FP member]	6	haluta [want]	19

Table A2. Keywords and their term frequency across categories in Greens-posted videos.

All		Reinforcing		Reformation	
vihreä [green]	53	mari	35	vihreä [green]	26
mari	39	ihana [lovely]	14	saada [get]	17
saada [get]	33	slay	13	vero [tax]	15
voida [can]	31	vihreä [green]	12	voida [can]	13
feministi [feminist]	25	feministi [feminist]	10	maksaa [pay]	13
Suomi [Finland]	23	Suomi [Finland]	9	tehdä [do]	12
ihminen [person]	21	voida [can]	8	suomi [finland]	9
tehdä [do]	19	saada [get]	8	hallitus [government]	8
ottaa [take]	19	feminismi [feminism]	8	ottaa [take]	8
Counterpositioning		Identifying		Other	
feministi [feminist]	14	persu [FP member]	2	miikka	11
vihreä [green]	9	kokoomus [NCP]	2	suomipop	11
nainen [woman]	7	Suomi [Finland]	2	saada [get]	8
npc	6	vas [left, shortened]	1	äänestää [vote]	6
ihminen [person]	6	äänestää [vote]	1	koulutus [education]	6

ongelma [problem]	6	jaa ['well then']	1	työ [work]	6
voida [can]	5	alue [area]	1	artists	6
mari	5	perussuomalainen [FP member]	1	voida [can]	5
feminismi [feminism]	5	numero [number]	1	vihreä [green]	5

Table A3. Keywords and their term frequency across categories in SFP-posted videos.

All		Reinforcing		Reformation	
ps [FP]	20	Suomi [Finland]	4	rkp [SFP]	9
rkp [SFP]	15	what	2	pakko [compulsory]	3
puolue [party]	7	the	2	ruotsi [Swedish]	3
kieli [language]	6	hell	2	kieli [language]	3
Suomi [Finland]	5	slay	2	puolue [party]	3
puhua [talk]	4	maa [country]	2	henriksson	2
pakko [compulsory]	4	bravo	1	irti [apart]	2
henriksson	3	main	1	puhua [talk]	2
ruotsi [Swedish]	3	character	1	pois [away]	2
Counterpositioning		Identifying		Other	
rkp [SFP]	14	ps [FP]	2	inte [not]	11
kieli [language]	9	rösta [vote]	2	leikata [cut]	11
npc	7	på [for]	2	valas [whale]	8
made	6	så [so]	1	valitettavasti [unfortunately]	6
do	6	blir [becomes]	1	pöllö [owl]	6
it	6	finland	1	laakso [valley]	6
puolue [party]	5	bättre [better]	1	sanna	6
tämä [this]	5	åt [at]	1	liikaa [too much]	5
vasemmistopuolue [left party]	5	Finländare [Finn]	1	porukka [group]	5

Toward non-textual representation of social anthropology

Modeling cultures as knowledge graphs

Manolis Peponakis^{1,2}, Sarantos Kapidakis³, Martin Doerr⁴ and Eirini Tountasaki⁵

¹ National Documentation Centre, Greece

² Ionian University, Greece

³ University of West Attica, Greece

⁴ Foundation for Research and Technology – Hellas, Greece

⁵ Panteion University of Social and Political Sciences, Greece

✉ epepo@ekt.gr

Abstract

The study examines the emerging field of knowledge representation in the context of the semantic web and linked data, with a focus on knowledge produced within the social sciences - particularly in sociocultural anthropology. It starts from the premise that natural language, especially its textualized form, has long been the primary vehicle for producing and communicating anthropological research. Informed by theoretical approaches from information science, the study explores how computational methods may offer alternative modes of structuring and representing anthropological knowledge. It challenges the dominance of text as the sole representational medium and highlights the potential of semantic modeling to open new epistemological pathways. At the same time, it acknowledges the conceptual and methodological challenges involved in such a transition. This approach shifts emphasis away from metrics and programming, foregrounding processes of conceptualization, semantics, meaning, and reasoning as key to engaging with anthropological knowledge in digital environments.

Keywords: computational social anthropology; knowledge representation; semantic web; ontologies; knowledge graphs; computational ethnography

1. Introduction

Natural language and, more precisely, its textualization, has been the main carrier for the production and representation of knowledge in social sciences, and particularly in anthropological research. Despite the dominance of text, there have been steps toward using computational methods and digital-born data for anthropological research. To name a few such cases, there is a recorded relation between big data and ethnographic data (Bjerre-Nielsen and Glavind 2022; Curran 2013), as well as the contribution of machine learning to predicting human reactions (Munk, Jacomy, and Knudsen 2022). Yet, irrespective

of the original means used for this knowledge generation, meaning either traditional or computational methods, there have been no relevant steps toward representing the overall generated knowledge in a machine-readable way. Because it is not only computational methods which support knowledge production, there are also computational methods for knowledge representation. These methods have their roots in the domain of information science and create a novel potential, more suitable for algorithmic processing, for recording and representing knowledge in diverse domains. Following these approaches, the development of artificial languages is considered essential for representing knowledge.

Geertz mentions that “The essential vocation of interpretive anthropology is not to answer our deepest questions, but to make available to us answers that others, guarding other sheep in other valleys, have given, and thus to include them in the consultable record of what man has said” (Geertz 1973, 30). And Marcus wonders whether all this knowledge generated by anthropologists can add up in the form of a cumulative archive (Marcus 1998). The question that arises is how this archive -holding what humanity has said- could be structured, so that it can be highly findable, accessible and reusable. Is natural language alone the most suitable mechanism for achieving this, or could artificial languages help in this regard?

In this context, the study puts into the spotlight some emerging methodological approaches for representing knowledge generated through qualitative analysis in the domain of social sciences by means that are effective for computational processing. For this purpose, emphasis is given to -and examples are drawn from- the sub-domain of social anthropology, deploying the potential arising from modeling knowledge representation for the semantic web. Seaver, an anthropologist who claims that algorithms are inherently cultural, notes that we are not distant observers but active enactors who produce ‘algorithms’ through our research (Seaver 2017, 5). The representation of these ‘algorithms’ in a ‘language’ suitable for efficient computational processing directly affects the potential of disseminating and processing anthropology in the digital infrastructures.

Studies have shown that there is an ongoing transition from the instrumentalization of computers as tools for calculations to the implementation of computer and information science theory and methodologies for analysis, deduction, knowledge representation, and reasoning, as part of the research process (Peponakis et al. 2024). Building on this evidence, the current study does not suggest a violent and radical methodological passage from text-based anthropology to non-textual representations; nor does it suggest a global methodological transition to quantifications and metrics. Instead, it introduces new conceptualizations for representing qualitative analysis in social sciences, setting new horizons in terms of defining semantics and meaning. The ultimate goal is to lead to effective reasoning by using computational methods.

2. Aims and objectives

The ultimate aim of the study is to contribute to new conceptualizations regarding the methods used for representing qualitative analysis in social sciences. Therefore, the main goals are, first, to explore the dynamics and the potential of representing qualitative analysis in the social sciences in the context of the semantic web, and, second, to highlight the benefits of this approach as well as the challenges that arise for social scientists. For these purposes, the study refers specifically to the domain of social anthropology, which is a domain largely based on textual representation for delivering research results. The specific objectives for achieving the study’s main goals are as follows:

- highlight the dominant role of natural language as a form of representation for anthropological research
- introduce certain concept-centric rather than scriptocentric artificial languages used for knowledge representation, and
- introduce fundamental principles for representing knowledge in the semantic web in general, while also focusing on the representation of anthropological knowledge, and outline the requirements and challenges for representing social anthropology in the semantic web.

This study is not about ethnographic fieldwork in the digital environment, as in the studies of Hine (2000), Boellstorff (2015), and Forberg (2021), to name a few. Instead, it is about representing data and the analysis of those data in the context of the semantic web, regardless of whether the fieldwork took place in the digital environment.

Finally, it should be clarified that, in anthropological research, there is a distinction between the recording of ethnographic data and their subsequent representation and interpretation. The former refers to the systematic collection and documentation of data -such as field notes, audiovisual recordings, or sensor-based traces of human activity- which constitute the empirical foundation of inquiry. However, anthropology engages in this process primarily serves as a necessary precondition for the latter: the interpretive work through which data are contextualized, analyzed, and rendered meaningful within broader theoretical frameworks. Accordingly, the present study is not concerned with methodological or technical issues related to the capture of primary data per se. Questions surrounding the production of raw ethnographic records -whether through observation, recording devices, or computational sensing technologies- fall outside its scope.

3. Challenges in representing knowledge

Natural language -as a means or carrier for representing knowledge- is compared against artificial formal languages used for these purposes. Even before entering this discussion, we acknowledge the existence of different views about whether it is even possible to represent knowledge in any way. For example, there are viewpoints arguing that knowledge is only present in the human brain; so, anything represented in the form of texts or images is simply information. Yet, in the context of this research, the term “knowledge” is used to refer to a type of sophisticated information representation, mainly because we do not just refer to the process of recording any information, but to a higher level of abstraction. Besides, the term is widely accepted and adequately defined in the context of the DIKW hierarchy or pyramid, where DIKW stands for Data-Information-Knowledge-Wisdom (Frické 2019). Following a bottom-up approach of the pyramid, the identified hierarchical levels are: “data”, which is used for relatively unstructured forms of statements or facts; “information”, which is used for data that have been processed, further organized, and, perhaps assigned a semantic determinant; “knowledge”, which is used when information can drive decisions; and finally, at the upper level of the hierarchy, there is “wisdom”. This last characteristic brings out the human element in this approach, addressing the discussion mentioned above, regarding whether knowledge is the semantic difference between humans and computers. The level of “wisdom” in this hierarchy defines the boundary as to what the product of computational processing can be, and the circumstances under which the human contribution is irreplaceable.

3.1 *Natural language as a means for representing knowledge*

Words in natural language represent concepts; therefore, they are essential for thinking and communicating. But the relation between words and concepts is not a “one-to-one” relationship, leading to the phenomenon of ambiguity. For example, a word may refer to multiple concepts (polysemy) or a concept may be expressed by different words (synonymy). This is why natural language and context are critically interrelated factors. Context is not only related to language but also to a wider cultural framework, since an implicit background of cultural information is involved during verbal communication. Pinker (2007, 227) highlights the contribution of context by considering “how much knowledge of human behavior must be interpolated to understand what *he* means in a simple dialogue like this:

Woman: I’m leaving you.
Man: Who is he?”

Still, many times, this implicit knowledge, which is inherent in humans, does not allow the signal to be transmitted the way its creator intended. And it is not about a potentially simple misunderstanding, but about the subjective hermeneutics which have developed particularly in the post-modern era, mainly through literary criticism, particularly following the work of Jacques Derrida. Post-modernism claims that objective communication is impossible since the receiver of the message could not know with certainty what the intended meaning of the message was.

Abrams goes a bit further with this approach and critiques it by acknowledging that we cannot guarantee that any interpretation is certain and true by reference to an absolute and eternal criterion beyond the regularities of our shared linguistic practice. Therefore, he explains, our certainty about an interpretation and its truth is never unconditional, since there is always the possibility, although in some cases relatively distant, of making a mistake. In this way, he undermines the extravagant position of theorists of this movement, noting that according to their own theory even the theorists themselves do not exist in their alleged theoretical world. And he illustrates his position by noting that, in everyday situations and interactions, the post-modernists cannot but abandon their theoretical language and adopt human language. This language refers to persons who have underlying intentions when using certain words, who want to communicate certain meanings, and who are held intellectually and morally accountable for their statements (Abrams 2014), meaning that they are imbued with intent and purpose.

Additionally, we must consider the ongoing transformation of natural language, as well as that of concepts, whether through the addition of new words or shifts in the meanings of existing ones; hence, language is considered a *living entity*. This attribute of language makes Feyerabend notes that, without a constant misuse of language, there cannot be any discovery, any progress (Feyerabend 2009, 18). At this point, we cannot but acknowledge that this paradox, namely the assignment of a new concept to a known word which was previously used with different semantics, is mainly an inherent function performed by the human brain. For example, the word *book* is now used to describe not only printed material, meaning what we have accepted as being the traditional format of books, but also digital files. Another example of our brain assigning a previously defined symbol to a new use is the widely recognized email icon, which depicts an envelope. Similarly, smartphones use the icon of a traditional landline telephone handset -commonly used in the 1980s- to represent the function of making phone calls.

Overall, formalistic languages may provide us with a solution for dealing with ambiguity, which is an inherent attribute of language and, therefore, cannot be overlooked. On this matter, an expert on controlled natural languages notes that “Natural language is very imprecise in this sense, because a large amount of context information is needed to grasp the meaning of typical sentences. Formal logic languages, on the other hand, have maximal precision, because their meaning is strictly defined solely based on the possible sequences of their language symbols” (T. Kuhn 2014, 128). In this way, it becomes apparent that the use of a concept-centric formalistic language is essential for representing context, because concepts [and not words] are the building blocks of thoughts, which makes them crucial for any psychological process of categorization, inference, memory, learning and decision making (Margolis and Laurence 2011, para. 1). And, as cognitive scientists propose, concepts are mental representations which refer to categories (Rips, Smith, and Medin 2013, 177).

3.1.1 Natural language, script, and anthropological knowledge

A fundamental problem of social and human sciences is that their descriptions of social phenomena are strictly related to specific natural languages (Van Der Leeuw 2004, 123). Social anthropology is no exception. The etymology of the word *anthropology* derives from the combination of two Greek words, namely *ánthrōpos*, which means human, and *-logíā*, which is a suffix denoting the study of something or that which is said; the etymology of the suffix derives from the verb *légō*, which means *speak*, *tell*, or *say*. Correspondingly, the etymology of the word *ethnography* derives from the Greek words *éthnos*, which means nation, and the suffix *-graphia*, which is, again, a suffix denoting the study of something or, in this case, what is written, since the etymology of the suffix derives from the Greek verb *gráphō*,

meaning *write*. Etymology may show the roots of a term but does not define the course of the scientific domain to which it refers. For example, the word biology also refers to discourse but its research and representation are not exclusively scriptocentric. Not only did anthropologists refrain from interrogating the hegemonic role of natural language in the representation of knowledge, but they actively reinforced its privileged status. Mueller emphasizes that ethnography, both as a process and as a product, is mainly verbal and scriptocentric (Mueller 2016, 99) and Starn notes “By now, writing is unavoidably part of who I am -in fact, I don’t know how to do much else. My grandfather was a mechanic; he fixed cars. I’m an anthropologist; I write” (Starn 2022). In this context, it is not surprising that one of the most influential anthropological texts, with thousands of references, is the book *Writing Culture* (Clifford and Marcus 1986).

Many scholars treat the aforementioned work as a reference point for discussing “the crisis of representation” (Kuper 2003). Yet, the emphasis on textual representation, clearly driven by the theories of Jacques Derrida, triggered the turn of anthropology to Humanities viewed from the perspective of post-modern theory, while distancing itself from the social sciences. In the afterword of *Writing Culture*, which is authored by Marcus himself, it is emphasized that textualization is at the heart of ethnographic endeavours, both in the field and in the academic ecosystem (Clifford and Marcus 1986, 264). In the same work, James Clifford expresses, first, the opinion that ethnographic practice effectively textualizes the other (Clifford and Marcus 1986, 111) and repeats later that ethnographic practice is mostly a process of writing and of textualization. Almost twenty years after this publication, Marcus evaluates its influence and finds that no practical shift from textual representation is observed in the domain of ethnography (Marcus 2007). Another cumulative work on the history of textualization is *Modernist anthropology: From Fieldwork to Text* (Manganaro 1990), where a whole chapter is devoted to *Ethnography as Discourse*, which examines how ethnographic writing constructs cultural meaning through narrative strategies.

Presumably, it is not natural language overall, but its textualization that becomes the essential means of producing and representing anthropological knowledge. In the following section, this approach is critically examined to determine whether it is the unique method available.

3.1.2 Expressive power: script as an example of natural language representation; information science as a means for information representation

In a world without writing (script), there would be no basic mechanism for producing texts either. In such a world and at some point, there would probably be an effort to introduce a scripting system, perhaps in a way that current alphabets in the western world did. Focusing on the weaknesses of such an effort, and considering what the sounds of natural language provide in the communication process, an argument arises concerning the expressive power of this system. In terms of representing language overall, it is not adequately sophisticated. First, it fails to represent two basic characteristics of verbal communication: the volume and vocal intensity. In addition, it does not have a mechanism for representing the resonance, the accent, or the tone of voice, and many more characteristics of sounds which are detectable and processed by human hearing. On the other hand, it uses few, overly simplistic symbols, such as the exclamation mark and the question mark, which could not even represent the slightest ironic intent in a sentence. Moreover, there is no way of representing pauses between words nor is there a way of representing the duration of syllables, etc¹. If the new system is less expressive than the existing one, i.e. oral language, then the question is: *Why does this new system even exist?*

Galeano’s critique of script seems to fit within the context of the aforementioned arguments. In his work “*Writing No*” he notes: “Some five thousand years before Champollion, the god Thoth traveled to Thebes and offered King Thamus of Egypt the art of writing. He explained hieroglyphs and said that

¹ This limited expressiveness of script drove modern linguistics, and especially the sub-domain of phonology, to develop specified “alphabets” which allow better recording of phonemes.

writing was the best remedy for poor memory and feeble knowledge. The king refused the gift: "Memory? Knowledge? This invention will encourage forgetting. Knowledge resides in truth, not in its appearance. One cannot remember with the memory of another. Men will record, but they won't recall. They will repeat, but they will not live. They will learn of many things, but they won't understand a thing" (Galeano 2009).

Leaving behind the hypothetical universe and mythology, in the modern western world we have experienced a massive downgrade of this argument. Since the Renaissance, the role of script has been so fundamental for peoples in the West that Foucault mentions "Henceforth, it is the primal nature of language to be written. The sounds made by voices provide no more than a transitory and precarious translation of it" (Foucault 2007, 42). An analogy can be viewed in the case of computer science. Representation and data management using computers set restrictions for what is transferred through voice or through what is written on paper; but a new language is formed and a new world is introduced for representing and managing information which could bring more dramatic changes than those introduced by the invention of script.

Another analogy between script and computer science lies in the fact that there is no single alphabet representing every natural language: it has to do with the existence of different requirements in order to respond to diverse needs. Similarly, the development of modern information systems considers pre-existing specifications and conditions, and makes sure that they are efficiently managed by the new systems. Building on our discussion of script, we realize that it encompasses more than just natural language. In some cases, natural language was proven to be limited in terms of formalism, so that certain findings or hypotheses of a domain could not be represented. Then, these domains developed their own languages, like mathematics and programming or markup languages, which maintain their own script and syntax. Along the same lines, specific scientific domains must develop their own "scripts", so that they can extensively exploit the potential of computer science. In this case, the situation tends to be more complicated because the subjects are algorithms, knowledge representations etc.

When specific domains realize the fundamental principles of modeling as required in the context of computer and information science, and they begin not just to use it but also to expand it to meet their own needs, the growth of research and its results may accelerate. From this viewpoint, the main concern would not be about using software for text processing, like the one used for drafting this article, or about using another type of software for quantified analysis of datasets. Instead, the focus would be on how data can be codified for computational processing. The domain of knowledge representation is a fertile ground that can help the social sciences achieve this goal.

3.2 Artificial languages and knowledge representation: A non scriptocentric approach

Knowledge representation, often studied alongside reasoning, is a domain of artificial intelligence (AI) that focuses on encoding information so it can be used in computers to perform complex functions and solve problems. For knowledge representation, three main components are needed: syntax, semantics, and reasoning. Syntax allows the construction of well-formed statements, following the same rationale as natural language syntax. Semantics defines the meaning, i.e. what is intended to be represented. And finally, reasoning is the analysis process aiming to extract conclusions derived from the data in question. The above components establish a generic framework that allows the development of artificial languages, which can be applied following more specific rules.

The most essential element in knowledge representation is meaning. As Guarino notes, the aim is to limit the number of alternative hermeneutics by defining the meaning of basic ontological categories which are used to describe a specific domain; thus, the ontological level is the level of meaning (Guarino 1995, 632). This section presents the basic principles for codifying meaning in the contemporary digital environment.

3.2.1 The semantic web as a knowledge graph

At this point it is essential to underline that the relationship between artificial intelligence and machine learning is often presented as one-dimensional. Machine learning is one aspect of artificial intelligence; but the domain of knowledge representation deals with codifying existing knowledge in a way that the machine “understands”, so that it can perform reasoning, through which new knowledge is formed. It should be clear that machine learning is a process that happens within the machine, forming “non-human understanding” with regard to the outcome of reasoning; while knowledge representation has to do with defining the way in which human thinking can be a building block of the machine. Antoniou and Van Harmelen note: there are two main solutions for achieving artificial intelligence. The first solution is the development of very sophisticated techniques for data analysis. The alternative solution focuses on data formats and is oriented more towards data structures so that data processing is facilitated; in this approach, structure enables sophisticated processing. The latter approach is the one paving the way towards the semantic web (Antoniou and Van Harmelen 2008, 3).

Semantic web or the web of data or web 3.0² (not to be confused with Web3) is an extension of the current web and focuses on the structure of data. The aim is to turn to data structures that will be more effectively processable by computers, in contrast to the functionality of the contemporary scriptocentric web. Many authors treat the terms semantic web, web of data, and linked data as synonyms. Yet, Machado et al devote a study on the differences between these terms. They summarize that the aim of turning the web into a global database led to the concept of the web of data. The specifications developed or related to this aim as well as the processes and rules for achieving it are known as linked data, which make possible the publication of data in a way that allows their connection with other data from different sources and formats (Machado, Souza, and Simões 2019, 712).

Linked data is the method for connecting structured data, and they are a priceless tool for developing shared and structured information; not simply data. Knowledge representation and semantic technologies supply the mechanism for upgrading linked data to meaningful statements since they carry the intended meaning. The meaning is essential for the correct apprehension of these statements and their interconnections, in relation to the description, context, and provenance (Oldman, Doerr, and Gradmann 2016, 267).

The main language for codifying data for the semantic web is RDF (Resource Description Framework). The fundamental syntax mechanism of this language is based on statements each of which has the form of a triple. The three elements of each triple are *subject*, *predicate* and *object* (W3C 2014). This structure is like the structure of natural language, namely *subject-verb-object*. The basic principle is that there are nodes and edges, both of which are assigned to URIs³. An analogy for natural language could be that the nodes are the nouns, while the edges are the verbs. In graphical representations the nodes are the elliptical shapes, while the edges -i.e, the connecting lines- are the predicates. The rectangles refer to textual values which cannot be the subject for defining new relations, meaning that the values are the names of the entities.

² The term Web 1.0 refers to the first phase of the Web’s development, during which interaction between end users and available content was extremely limited. Web 2.0 refers to the subsequent phase of the Web, in which end users could easily create, share, and publish content. This was made possible largely by the development of social media technologies and platforms such as YouTube and Facebook.

³ URI is the acronym of Uniform Resource Identifier, which is a string of characters identifying unambiguously a resource. For uniformity purposes, all URI types follow certain syntactic rules. One of the most popular URI forms is the one based on the http protocol where every URI stands for an entity/resource.

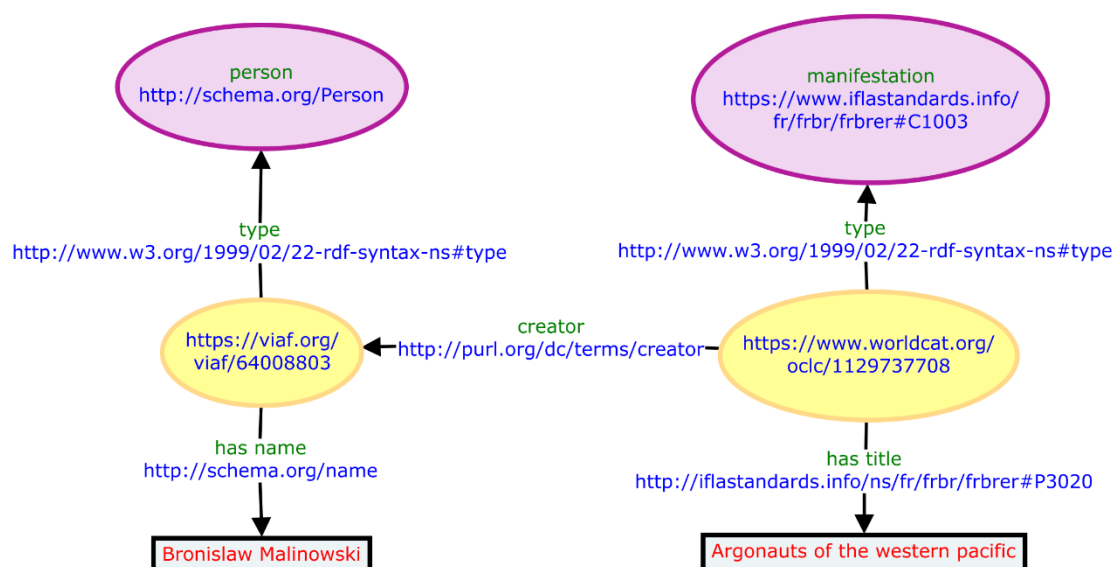


Figure 1. An example of RDF data structure for the semantic web (graphical representation)

The words in green do not form part of the data codification; they are used only to aid in reading the graph.

According to the aforementioned presentation of what the elements of RDF are, Figure 1 states that the left yellow node, <https://viaf.org/viaf/64008803>, is the creator of the right yellow node, <https://www.worldcat.org/oclc/1129737708>. But what is depicted here is not reality; the nodes function as surrogates of entities, meaning that the information actually represented is that the entity assigned to the first address, i.e. Malinowski, has created the resource assigned to the second address, i.e. the work titled *Argonauts of the Western Pacific*. Sowa notes that knowledge representation is, de jure, a surrogate. Physical objects, events or relations cannot, in fact, be stored directly in a computer. But they can be represented using symbols; and these symbols can function as substitutes for external things. By managing the internal surrogates, the software in use can simulate the external systems or perform reasoning based on them (Sowa 2009, 134). Therefore, with reference to Figure 1, there is a web address functioning as a surrogate for either a category (class of things), or an entity (an instance of a class), or even a relation between things or instances.

A textual and more eloquent representation of the triples in Figure 1 would be as follows: Malinowski, who is a person, created a resource which has the title *Argonauts of the western pacific*. What is important is that the words “person”, “resource”, “creator”, “has title” and all words in green font, are unambiguously defined according to certain standards in relevant URIs⁴. The two nodes in yellow show the basic resources that the graph holds, i.e. the record for Malinowski (<https://viaf.org/viaf/64008803>) from the *Virtual International Authority File* and the record for the book *Argonauts of the western pacific* (<https://www.worldcat.org/oclc/1129737708>) from WorldCat, the international virtual library catalogue. The classes, i.e. the nodes in purple, declare the types of entities, not the entities.

In the above example, properties and classes were deliberately not selected from a specific schema or ontology for illustrating the description of the resources included. In this way, the flexibility allowed regarding the selection of properties is demonstrated during the creation of knowledge graphs, while the obvious absence of properties related to the core of Anthropology results from the lack of corresponding established ontologies. And it is precisely this gap that this study demonstrates, pointing out that anthropology and cultural studies must be integrated into this process.

⁴ “Person” is defined in <http://schema.org/Person>, “resource” is defined in <https://www.iflastandards.info/fr/frbr/frbrer#C1003>, “creator” is defined in <http://purl.org/dc/terms/creator>, “has title” is defined in <https://www.iflastandards.info/fr/frbr/frbrer#P3020>, and <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> (rdf:type) is defined by RDF and states that a resource is an instance of a class.

Although it may be regarded as an oversimplified approach, it could be said that RDF makes possible the representation of whatever needs to be expressed in the form of structured⁵ information which is machine processable. At the same time, it is also close to what can be expressed using natural language. But the modern technological environment allows for a higher level of abstraction than this. This means that we can not only extract obvious information for specific entities, like in the case depicted in Figure 1 in which the information is rather explicit; Malinowski, who belongs to the class *People*, authored the work *Argonauts of the Western Pacific*, which belongs to the class *Books*. The purpose is to declare the rules which define the structure of information in a machine-readable form. At this upper level, it is possible to represent logical rules, and then to confirm the data against these logical rules. In Figure 1 the upper level of abstraction, which is the actual target of knowledge representation, is to provide us with the conclusion that *People write Books*. To achieve this, there is another need to make a clear distinction between the syntactical and the logical correctness of the statements. For this purpose, another example follows. Let us consider the sentences “The cow gave birth to a calf” and “The chair gave birth to a stool”. Both sentences are syntactically valid. But, if the applicable rule is that *only living creatures can give birth* and *Cows* are assigned to the category of *Living creatures*, while *Chairs* are not, then the second sentence, although syntactically valid, is logically false. And this conclusion can be extracted through reasoning. The resources -in the environment of semantic web- which can codify these logical rules and facilitate reasoning are called ontologies, which are one of the important pillars of the semantic web.

The concept of ontology derives from two distinct domains; traditionally, one is rooted in philosophy, while the other, more recently introduced, derives from computer and information sciences. The first approach focuses on categorical analysis, in which the intention is to record reality. The approach to ontologies deriving from computer science also focuses on recording reality, but it has a different intention: to create computationally processable models of reality, artifacts that can be used by software. In addition, the requirement is that these models are directly interpretable for the purposes of reasoning using special software called “inference engines”. The main goal is that they enhance the software with human level semantics (Poli and Obrst 2010, 1). One of the most popular definitions of an ontology, in the context of computer science, is that it is an explicit specification of a conceptualization. The term is borrowed from philosophy, where Ontology is a systematic account of Existence. For AI systems, what ‘exists’ is what can be represented (Gruber 1995, 908). Based on the above, it becomes obvious that anyone dealing with ontologies in this context has to move away from questions that deal with reality and turn to questions that deal with the representation of reality (Kohne 2014, 88), embracing the fact that within the “inference engines”, this representation functions as a surrogate for the things that exist in the world. Ontologies can be perceived as a type of technological semantic gateway since they allow communication and coordination among various disciplines, languages, classes or database schemas. This is a basic aim for cyber-infrastructure, since it allows data and resources to flow freely across institutions of science (Ribes and Bowker 2009, 201).

An ontological representation includes four basic elements, namely a) the entities/instances (objects, concepts, persons, etc), b) the classes which they belong to, c) their properties, and d) their names. To better relate these types of elements to their representation, in Figure 1 the entities are presented as yellow nodes (elliptical shapes), the names are presented in red fonts within the rectangles, the properties are the connectors (edges) and the categories (classes of things) are the purple nodes (elliptical shapes).

The most popular language for codifying ontologies is the Web Ontology Language (OWL) (W3C 2004). Beyond the characteristics already presented in the previous paragraph, OWL divides the properties into two basic types. The first type is datatype properties, i.e. properties for which the value is a data literal, and the second type is object properties, i.e. properties for which the value is an individual. For example, the properties of the first type could be used to declare the height of a person, while the

⁵ Structured data is organized according to a predefined model -such as tables or schemas-, making it more easily processable by machines. Unstructured data, by contrast, lacks a fixed format -such as text or images- and therefore requires more complex methods to interpret and analyze.

properties of the second type could be used to declare the relation between two persons. For computational processing and reasoning, any instance is defined through its properties. To further elaborate on this, the “meaning” of a concept is declared by its position within the network, which means that the concept is defined by the properties which are assigned to it, and not by its definition or its name (Peponakis et al. 2019, 448).

3.2.2 Indicative example of modeling social phenomena

We could use kinship as an illustrative case for the implementation of social phenomena as knowledge graphs, in order to demonstrate both the applicability of this approach to anthropological data and the need for more fine-grained specification of the recording elements that anthropologists are required to produce. A clear and illustrative example is marriage. In a simplified, Western-centric perspective, marriage begins with the union of two individuals; it is therefore conceptualized as a relationship that connects two persons. If we were to express this in terms of the semantic web, then it could be represented as shown in Figure 2. This diagram illustrates a conceptual level in which categories (classes) indicate how individuals may potentially be connected to one another, while also reflecting how specific individuals are in fact connected.

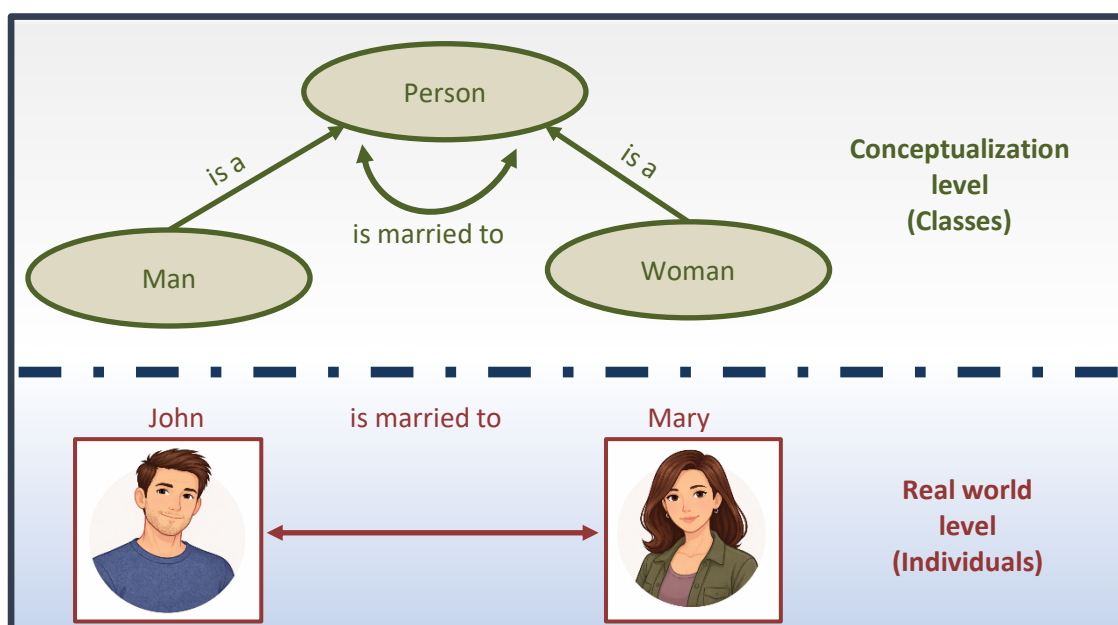


Figure 2. Conceptualization and real world

More specifically, Figure 2 shows, at the conceptual level, that Persons marry other Persons, and that they can be divided into the categories of Men and Women. Furthermore, the property “is married to” is symmetric (i.e., if Person A is related to Person B via this relationship, then Person B is also related to Person A via the same relationship). This is at the conceptual level. In the real world, we state that John is married to Mary. The appendix contains the relevant code in OWL. However, for the anthropological approach, the goal is not the development of the code but the development of the conceptualization level, using the logic of classes and properties, from real-world data.

How, then, could marriage be effectively modeled so that it can reflect the various forms this institution takes in every culture? Because the form of marriage depicted in the above diagram reflects a simple stereotypical model that predominated in the Western world, rather than a structure that is representative of societies globally. Consequently, questions such as which individuals may marry one another, as well as how many partners an individual may have -whether simultaneously or sequentially-

constitute matters of substantive concern for anthropologists studying specific cultural contexts. The way marriage -and the kinship relations that typically arise from it- can be modeled is neither self-evident nor straightforward within the framework of the semantic web and knowledge graphs. Indeed, an entirely different modeling approach could be adopted from that illustrated above. As an example, we turn to CIDOC-CRM.

CIDOC-CRM is a highly influential ontology in the field of cultural heritage developed by the CIDOC, a committee of the International Council of Museums (ICOM). The ontology adopts an event-centric approach (Doerr 2003). Accordingly, in the case where CIDOC-CRM -or a compatible framework- were to be employed, it would be necessary to introduce a class representing marriage as an event in which individuals participate. In this type of modeling, there is no direct relationship between individuals; rather, the relationship is mediated through the event of marriage itself. This structure is evidently more expressive, as each individual marriage instance can be associated with its own set of properties. Thus, it becomes possible not only to state that an individual participates in a given marriage as a spouse, but also to specify additional attributes, such as the date of its inception, the location of the wedding ceremony, the duration of the union, and any offspring resulting from it.

At a more general level, CIDOC-CRM provides a robust mechanism for modeling events and their historical dimensions, effectively integrating temporal entities, events, actors, and the (conceptual or physical) objects they produce. In this respect, its core design demonstrates considerable potential as a candidate ontology. However, it also presents a significant limitation that restricts its applicability to a substantial portion of anthropological information: it does not accommodate the representation of entities that do not exist in the real world. As a result, it cannot adequately model deities, mythological constructs, and related phenomena. Nevertheless, its sophisticated approach to representing events and their evolution over time remains highly valuable and merits consideration, particularly for the documentation and analysis of phenomena central to anthropological research.

4. Knowledge representation of anthropological information in the semantic web: Advantages and main challenge

As we mentioned in the introduction, the purpose of anthropology, according to Geertz and Marcus respectively, is to make available to us the answers that others have given, and thus to include them in the consultable record of what humans have said, thereby creating a cumulative archive. The semantic web and the relevant knowledge graphs may currently represent one of the best available solutions, as they allow for the semantic integration of geo-temporal, linguistic, cultural, and relational data within a unified yet flexible framework (Chansanam et al. 2025).

Barley, stigmatizing the way in which anthropologists use their data, says that “Fact-gathering in itself has few charms. Anthropology is not short of facts but simply of anything intelligent to do with them. The notion of ‘butterfly-collection’ is familiar within the discipline and serves to characterize the endeavours of many ethnographers and failed interpreters, who simply amass neat examples of curious customs arranged by area, or alphabetically, or by evolutionary order, whatever the current style may be” (Barley 2000, 9). All the information deployed in previous sections refers to a method which allows “intelligent agents” to manage the products of anthropological knowledge effectively, so that data is better managed and added value services can be based on it.

Trying to achieve the overall goal set above, we realize the difficulty which Feldman suggests: “The absence of a coherent framework for organizing contemporary ethnographic findings reveals itself in subtle but telling ways [...]. What I propose is a somewhat different mode of ethnographic theory, an approach that would draw inspiration from cross-cultural research methods and seek to avail itself of the technological advancements of our time” (Feldman 2017, 2).

4.1 Advantages for anthropology

Many benefits can be attributed to the semantic web, as implemented through linked data. Some of the key advantages are: promotion of common data formats and exchange protocols on the Web which allow for the explicit definition of the intended meaning in a machine processable way; collaboration in data creation; reasoning over data; integration of heterogeneous data sources; support in data exploration, data analysis and knowledge discovery; working on multiple perspectives of the same data. In practice, the semantic web will allow us to answer questions we haven't even asked!

Obviously, what the previous paragraph mentions in general also applies to anthropology. But the representation of anthropological information in the context of the semantic web does not come with a known list of beneficial outcomes. It is an ongoing process, therefore it depends on the course of actions taken in-between, and it changes over time, depending both on technological advances and the knowledge hub created through anthropological research. This ongoing process adds more value to the overall endeavor which is difficult to predefine. Despite the challenges, this section presents some of the advantages, focusing mainly on off-the-shelf benefits.

In anthropological research, the interlinking of heterogeneous data through semantic web technologies is particularly valuable, as data originates from a wide range of diverse sources, including archival materials, fieldwork observations, museum collections, and oral histories. These technologies enable the integration of such scattered information into a unified, interoperable network, thereby facilitating the systematic association of entities such as rituals, places, languages, and social practices, and allowing researchers to explore relationships and patterns that would otherwise remain fragmented or difficult to identify.

The establishment of a shared conceptual understanding through ontologies is particularly important, as key concepts such as kinship, identity, and ritual often carry nuanced and context-dependent meanings. Ontologies enable the formal definition of these concepts and the explicit specification of the relationships between them, thereby reducing ambiguity and supporting a common conceptual framework. This, in turn, facilitates clearer communication and more consistent data interpretation across researchers and research contexts. As an indicative example of this shared conceptual understanding, one may consider the properties attributed to marriage and the way in which these are modeled. Specifically, these properties may be represented either as direct relationships between the involved individuals or through an event-centric approach, as discussed in section 3.2.2.

The most obvious and direct advantage is related to resource discovery. The proposed method for representing anthropological research knowledge not only increases the amount of ethnographic information available on the Semantic Web, but also improves search and browsing capabilities for this type of data, while avoiding some of the problems that may arise from representing Indigenous Knowledge within Western-oriented repositories. Because the “institutionalised repositories hosting digital artefacts, follow Eurocentric categorisation systems and hardly consider different ways of organising representations of the world” (Mukumbira and Winschiers-Theophilus 2024). The technologies of the semantic web are particularly well-suited to enabling polyvocality, as they support the integration, representation, and interconnection of multiple perspectives within a shared, structured framework. Presumably, there are an infinite number of criteria for categorizing these resources, to provide accurate information to the end user of the system.

The second -and maybe the most important aspect- is of concern to the domain of comparative anthropology and relevant cultural studies. In this field, comparison comes with many challenges (Abramson and Gong 2020). Modeling information according to the principles of the semantic web unlocks the potential and the dynamics for comparative anthropology. Because, in the context of the semantic web, any information will not be available only as text, but also as meaning; and knowledge representation will have the cumulative character of a cohesive archive. This will allow researchers to set

sophisticated criteria while studying certain aspects of human activities, since the process of matching these against others would be performed using computational methods.

Another advantage derives from the required formalism in knowledge representation for computational processes; further accuracy and granularity are encouraged in recorded descriptions and extracted conclusions. In addition, the capability of implementing reasoning processes upon the data also allows the validation of decisions in certain research cases.

An additional potential includes the arising possibilities regarding new ways of visualization of results, such as graphs. Data can be derived from pre-existing and codified knowledge which may now be presented in an alternative form. Admittedly “anthropologists make very little use [of] diagrams to model the social processes they study” (Carlson and Anderson 2007, 642), but this type of representation can be very helpful. Maybe the only area where formalisms and diagrams have been extensively used is kinship. Dwight Read is one of the scholars who has engaged with the subject most systematically and in depth. An indicative example is the study *Cognition, Algebra, and Culture in the Tongan Kinship Terminology* (Read and Bennardo 2007).

This approach, significantly considering the issue of semantic interoperability, enhances the interaction of anthropological research with other scientific domains. Formal models are essential within an interdisciplinary context due to both their potential for dealing with abstractiveness and their focus on details; when, at the same time, they can be adequately “realistic” so that they guide people from distinct backgrounds to turn to the research of common subjects (Van Der Leeuw 2004, 123).

“Knowledge is the anthropologist’s stock-in-trade. [...] anthropology is the description and representation of knowledge possessed by human groups” (Fischer 1994, 6). By representing this knowledge in semantic web terms, it can be recorded in a language-agnostic environment which is concept-centric, offering the potential to put the qualitative analysis at a more abstract level.

4.2 Requirements and challenges

The representation of anthropological knowledge in the semantic web is not the type of task that can be performed by an individual; not even by small groups of experts. And it is not a task that involves computer and information scientists exclusively. It demands collaboration from both domains involved. Regarding the relationship between networks and the mathematical theory of graphs and anthropology there has been an ongoing discussion for decades. Since the ‘70s Wolfe has highlighted the flourishing of network thinking in anthropology (Wolfe 1978). Although his recommendations are not RDF-based, the basic rationale is the same. Since then, progress has not been significant, although two essential factors have been introduced. First, computers are now fully incorporated into everyday activities and knowledge about computers is widespread among almost all citizens of the Western world, thus even anthropologists are familiar with them. Second, and perhaps more essential, the pursuit of activities related to computer science is not always a low-level technical process but one that can be implemented at a higher level of abstraction. Even the codification might not require pre-existing programming knowledge; just logic. Thus, the epicenter of the process moves from technical matters to conceptualization.

For the codification of anthropological data, there is no need to develop ad hoc anthropological computational methods because this type of methods is not domain-dependent (Fischer 1994, 1–2). Consequently, there is no need for anthropologists to invent a new methodology; nevertheless, it is required that they develop computational thinking, according to Wing’s viewpoint. In this case, computational thinking is not perceived as programming but as conceptualization; it is not about creating thinking machines, but about how humans think; and it is not a method for quantifying information, but a way of understanding how humans use their ideas for approaching and solving problems (Wing 2006). Anthropologists, however, must also develop a working understanding of the logic underlying computational representation. For example, in Figure 2, the relationship between two individuals who marry can be correctly modeled as *symmetric* when both its domain and range are defined as Person,

meaning that any person can stand in this relation to any other person. If, however, the domain were restricted to men and the range to women, while the relation remained defined as symmetric, this would lead to a logical inconsistency in the model: since every woman would also be defined as a man. This example shows how inappropriate alignment between cultural categories and formal relational structures can generate unintended and misleading implications.

A second example, based on Figure 1, also highlights the need for anthropologists to be the ones to undertake the modeling. If there is a need to extend the specific graph, then a declaration could be added stating that *Malinowski studied the Trobriands*. This addition raises questions which can only be answered by anthropologists: Which is the relation for declaring “studied”? Where and by whom is it defined? Which is the relation for declaring that he conducted “field research”? And, again, where is it defined, and by whom? Are the Trobriands indeed the ones defined by HRAF in the following link: <http://ehrafworldcultures.yale.edu/collection?owc=OL06> ? What are the properties -and who defines them- that relate the concepts in their culture? Correspondingly, what are the relationships that define kinship and should be specified in Figure 2 in order to represent a particular culture? As already mentioned, these are questions that cannot be answered by anyone other than anthropologists and the communities they work with.

Because anthropological research is fundamentally concerned with the articulation of conceptual and ontological frameworks that represent the complexities of social reality. However, this endeavor is inherently constrained by the nature of the empirical data upon which such frameworks are built. Ethnographic and anthropological datasets frequently contain sensitive personal information that cannot be ethically disclosed in full. As a result, a central methodological challenge emerges: how to construct and communicate robust conceptual models that remain grounded in empirical observation while safeguarding the privacy and dignity of research participants. This tension underscores the need for approaches that prioritize abstraction, anonymization, and the careful translation of lived experience into analytically meaningful categories.

In this context, the question shifts from whether empirical data can be shared to how elements of such data might be selectively and responsibly integrated within broader conceptual representations. Principles such as FAIR (Findable, Accessible, Interoperable, and Reusable) data stewardship offer a potential framework for addressing this issue, yet their application within anthropology remains underdeveloped. Many scholars exhibit skepticism toward data-sharing paradigms (Pels et al. 2018), often due to legitimate ethical concerns and disciplinary traditions that privilege contextual depth over standardization. Nevertheless, there is a growing need to explore methodologies that enable partial data inclusion while preserving ethical integrity. Advancing this discussion requires a critical engagement with both the epistemological foundations of anthropology and the evolving landscape of digital research practices.

The adoption of both FAIR and CARE (Collective Benefit, Authority to Control, Responsibility, Ethics) principles is essential for the responsible and effective management of cultural data. While FAIR principles emphasize technical aspects such as data standardization, interoperability, and machine-actionability, CARE principles foreground issues of governance, ethics, and the rights of communities, particularly indigenous and local stakeholders. Within this context, semantic web technologies provide a robust framework for implementing FAIR by enabling the formal representation of data through ontologies, linked data structures, and shared vocabularies, thereby enhancing discoverability and interoperability. At the same time, the use of linked data could support CARE principles by facilitating the inclusion of provenance metadata, access controls, and culturally sensitive annotations that respect community authority and ethical constraints. Thus, the integration of semantic web approaches with linked data practices offers a complementary pathway toward aligning technical excellence with ethical responsibility in data stewardship.

In summary, representing a culture requires the identification of its core concepts and the explicit modeling of their interrelationships within the appropriate cultural context, while adhering to FAIR and CARE principles in the management and use of the data from which these conclusions are derived. In

OWL terminology, this entails the formal definition of classes and the relationships among them. Consequently, semantic technologies provide an effective framework for representing ethnographic information and anthropological knowledge.

5. Discussion

Certain sub-domains of artificial intelligence -such as machine learning, on which Generative AI models are based- are black boxes that represent and manage data in ways that are ‘understandable’ only by computers⁶. On the contrary, ontological knowledge representation is an assertion box whose representation is based on a human-centric approach and on codifying knowledge in ways that are readable both by humans and computers. But it is impossible to transfer expert knowledge without an established method. This is what Guarino means by saying that a knowledge base is not a repository of knowledge which was extracted from the experts’ brains, like bequeathing knowledge, but it is the outcome of a modeling process (Guarino 1995, 625).

Knowledge representation may be at the core of social anthropology (Fischer 1994, 3), but it must be emphasized that ontologies are cultural constructions reflecting specific epistemological approaches and as such, they are not about the representation of an objective world nor about the objective representation of a relative world. Whatever the perceptions of anthropologists about the world may be, these perceptions could be the subject of attempted representations. Because the ontological representation to which we refer is no longer interested in a direct identification and characterization of reality via categories, but in a conceptualization of how reality is represented in any mind or rather through any mind (Kohne 2014, 87). In this case, the famous saying of Spinoza applies: “What Paul says about Peter tells us more about Paul than about Peter”; in non-textual representation the same principle applies: what we choose to describe expresses both ourselves and the others. This specified way of description has two particularly important advantages if compared to natural language: first, it is less open to misinterpretations, and, second, it creates more options for computational processing.

This study refers to approaches that lead to more formalistic methods which are closer to algorithmic processes. Formalism of this type is not intended to simplify meaning, but to represent meaning in a precise and unambiguous way. Thus, the expressiveness of a system is not dependent upon the level of its formalism but upon the level of the granularity it can support. In other words, any specifications or generalizations are handled by the degree of resolution allowed by any system; and not by its degree of formalism.

According to Van Der Leeuw, the value of formalistic modeling for social sciences is multiple. An advantage of these models is that they allow researchers to describe concisely a wide spectrum of relations with a level of precision which is usually not possible with the only alternative tool we have, i.e. natural language. In addition, the application of formalistic models is not restrained by specific domains. No less important in the context of social sciences is the fact that these models use a description language that is different from the one used to describe the phenomena of the modeling process. He also notes that certain types of formalistic models can precisely and concisely describe any changes occurring within a complex network of relations. Due to these characteristics, modeling is the ultimate fit-for-purpose technique for the formalization of dynamic theories concerning certain phenomena, which can later be compared against our own observations (Van Der Leeuw 2004).

⁶ In response to the fact that many modern generative AI systems operate as “black boxes”, Explainable AI was developed. Explainable AI refers to methods and techniques that make the decisions of machine learning models understandable to humans. It aims to reveal why a model produces a specific output instead of treating it as a black box. One common approach in Explainable AI is LIME (Local Interpretable Model-agnostic Explanations), which explains individual predictions by approximating the model locally with a simpler, interpretable model. For example, LIME can highlight which words in a text classification task most influenced a prediction, such as identifying “free” and “click” as key indicators of spam. LIME does not have access to the internal structure of the model. It treats the model as a black box and approximates it using simple, interpretable approaches.

Although the formalistic representation method presented in previous sections may be unfamiliar to the cultures studied by anthropologists, this is no hindrance to the recommended method of representing anthropological information in the context of the semantic web. Script is also strange to some cultures; yet, current anthropology uses it to describe them. Anthropological research is not conducted by means of the “others”, but by means of the anthropologist’s methods. Besides, the scientific research is “a strenuous and devoted attempt to force nature into the conceptual boxes supplied by professional education” (T. S. Kuhn 1970, 5). Therefore, the osmosis of information science theory and methodologies into social anthropology could trigger a Kuhnian paradigm shift, which introduces a new way of representing and managing anthropological knowledge.

Finally, it should be remarked that the more we dive into the transition to computational data processing, the more the issue of its transparency comes to the fore. According to Kemper and Kolkman, the more deeply algorithms are incorporated into the functioning of organizations, the more influential and less transparent they become. The creators of algorithms may make arbitrary choices which are opaque to interested stakeholders. In this way, algorithms reflect the bias of their creators and may impose certain preferences or positions against alternative options (Kemper and Kolkman 2018). This is the main reason transparency is a mandate for the creation and functioning of algorithms.

6. Conclusions

This article does not recommend a radical disengagement from the textual representation of the social sciences in general, nor, in particular, from anthropological knowledge. It tries to provoke discussion about whether script and text production are the only methods for recording and presenting the results of qualitative analysis in social science research. Evidence shows that alternative ways are also available. Here, the focus was on the semantic web and knowledge representation, demonstrating how they can contribute to representing, managing, and disseminating anthropological knowledge. The recommended approach does not deal with algorithms and ontological representations as autonomous, technical artifacts, but as complex socio-technical systems (Seaver 2018, 378).

Through the recommended modeling, the knowledge of domain experts may be used to identify context and represent it precisely and purposefully. The explicit representation of context allows for an analysis at multiple levels, namely micro, macro, and in-between, creating a highly effective system, especially when data exchange is involved, since the essential element of linked data and semantic technologies is the encouragement of cooperation (Oldman, Doerr, and Gradmann 2016). Aside from this aspect, the power of computers to bridge the gap between theory and data collection could amount to nothing if they are not assigned more complex tasks than the basic organization of our notes and the visualization of selected information in tables and diagrams (Kippen 1988, 319). It is up to anthropologists to decide how they wish to interact with computer science and information science, but their decisions will affect the ecosystem within which their knowledge could be enriched, documented, and disseminated among other scientific domains.

Having presented our arguments, the proposed ontological representation does what (ideally) anthropology itself does: it makes explicit the knowledge that remains implicit within individuals. In other words, knowledge representation -through ontologies and knowledge graph technologies- aligns with social anthropology in that it seeks to document, in a clear and systematic manner, what is already known within a group of individuals, and to use this documentation to draw conclusions by interpreting the knowledge that it has captured.

References

- Abrams, M.H. 2014. "What Is a Humanistic Criticism?" In *The Emperor Redressed: Critiquing Critical Theory*, University Alabama Press.
- Abramson, Corey M., and Neil Gong. 2020. "Introduction: The Promise, Pitfalls, and Practicalities of Comparative Ethnography." In *Beyond the Case: The Logics and Practices of Comparative Ethnography*, Oxford University Press, 1–27. <https://dx.doi.org/10.1093/oso/9780190608484.003.0001>.
- Antoniou, Grigoris, and Frank Van Harmelen. 2008. *A Semantic Web Primer*. 2ed ed. Cambridge, Mass: MIT Press.
- Barley, Nigel. 2000. *The Innocent Anthropologist: Notes from a Mud Hut*. New York: Waveland Pr Inc.
- Bjerre-Nielsen, Andreas, and Kristoffer Lind Glavind. 2022. "Ethnographic Data in the Age of Big Data: How to Compare and Combine." *Big Data & Society* 9(1): 1–6. doi:10.1177/20539517211069893.
- Boellstorff, Tom. 2015. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*. New edition. Princeton, NJ: Princeton University Press.
- Carlson, Samuelle, and Ben Anderson. 2007. "What Are Data? The Many Kinds of Data and Their Implications for Data Re-Use." *Journal of Computer-Mediated Communication* 12(2): 635–51. doi:10.1111/j.1083-6101.2007.00342.x.
- Chansanam, Wirapong, Lan Thi Nguyen, Chunqiu Li, and Christopher Khoo Soo Guan. 2025. "Semantic Knowledge Graphs for Intercultural and Ethnographic Diversity in the Greater Mekong Subregion." *Journal of Intercultural Communication* 25(3): 11–24. doi:10.36923/jicc.v25i3.1161.
- Clifford, James, and George E Marcus, eds. 1986. *Writing Culture: The Poetics and Politics of Ethnography*. Berkeley: University of California Press.
- Curran, John. 2013. "Big Data or 'Big Ethnographic Data'? Positioning Big Data within the Ethnographic Space." *Ethnographic Praxis in Industry Conference Proceedings* 2013(1): 62–73. doi:10.1111/j.1559-8918.2013.00006.x.
- Doerr, Martin. 2003. "The CIDOC Conceptual Reference Module: An Ontological Approach to Semantic Interoperability of Metadata." *AI Magazine* 24(3): 75. doi:10.1609/aimag.v24i3.1720.
- Feldman, Joseph. 2017. "Big Data and Ethnology." *Anthropology Today* 33(3): 1–2. doi:10.1111/1467-8322.12345.
- Feyerabend, Paul. 2009. *Against Method*. 3rd ed. London: Verso.
- Fischer, Michael D. 1994. *Applications in Computing for Social Anthropologists*. edition published in the Taylor&Francis e-Library, 2005. London: Routledge.
- Forberg, Peter L. 2021. "From the Fringe to the Fore: An Algorithmic Ethnography of the Far-Right Conspiracy Theory Group QAnon." *Journal of Contemporary Ethnography*: 08912416211040560. doi:10.1177/08912416211040560.
- Foucault, Michel. 2007. *The Order of Things: An Archaeology of the Human Sciences*. London: Routledge.
- Frické, Martin. 2019. "The Knowledge Pyramid: The DIKW Hierarchy." *Knowledge Organization* 46(1): 33–46. doi:10.5771/0943-7444-2019-1-33.
- Galeano, Eduardo. 2009. *Mirrors: Stories of Almost Everyone*. London: Portobello.
- Geertz, Clifford. 1973. *The Interpretation of Cultures: Selected Essays*. Basic Books.
- Gruber, Thomas R. 1995. "Toward Principles for the Design of Ontologies Used for Knowledge Sharing?" *International Journal of Human-Computer Studies* 43(5–6): 907–28. doi:10.1006/ijhc.1995.1081.
- Guarino, Nicola. 1995. "Formal Ontology, Conceptual Analysis and Knowledge Representation." *International Journal of Human-Computer Studies* 43(5–6): 625–40. doi:10.1006/ijhc.1995.1066.
- Hine, Christine M. 2000. *Virtual Ethnography*. SAGE Publications Ltd.
- Kemper, Jakko, and Daan Kolkman. 2018. "Transparent to Whom? No Algorithmic Accountability without a Critical Audience." *Information, Communication & Society* 0(0): 1–16. doi:10.1080/1369118X.2018.1477967.
- Kippen, James. 1988. "On the Uses of Computers in Anthropological Research." *Current Anthropology* 29(2): 317–20.
- Kohne, Jens. 2014. "Ontology, Its Origins and Its Meaning in Information Science." In *Philosophy, Computing and Information Science*, eds. Ruth Hagengruber and Uwe Riss. London: Pickering & Chatto, 85–89.
- Kuhn, Thomas S. 1970. *The Structure of Scientific Revolutions*. [2d ed., enl. Chicago: University of Chicago Press.
- Kuhn, Tobias. 2014. "A Survey and Classification of Controlled Natural Languages." *Computational Linguistics* 40(1): 121–70. doi:10.1162/COLI_a_00168.
- Kuper, Adam. 2003. *Culture: The Anthropologists' Account*. 5. print. Cambridge, Mass.: Harvard Univ. Press.
- Machado, Luis Miguel Oliveira, Renato Rocha Souza, and Maria da Graça Simões. 2019. "Semantic Web or Web of Data? A Diachronic Study (1999 to 2017) of the Publications of Tim Berners-Lee and the World Wide Web Consortium." *Journal of the Association for Information Science and Technology* 70(7): 701–14. doi:10.1002/asi.24111.
- Manganaro, Marc, ed. 1990. *Modernist Anthropology: From Fieldwork to Text*. Princeton, New York: Princeton University Press.
- Marcus, George E. 1998. "The Once and Future Ethnographic Archive." *History of the Human Sciences* 11(4): 49–63. doi:10.1177/095269519801100404.
- Marcus, George E. 2007. "Ethnography Two Decades after Writing Culture: From the Experimental to the Baroque." *Anthropological Quarterly* 80(4): 1127–45.
- Margolis, Eric, and Stephen Laurence. 2011. "Concepts" eds. Edward N. Zalta and Uri Nodelman. *The Stanford Encyclopedia of Philosophy*. <http://plato.stanford.edu/archives/spr2014/entries/concepts/> (May 2, 2025).

- Mueller, Alain. 2016. "Beyond Ethnographic Scriptocentrism: Modelling Multi-Scalar Processes, Networks, and Relationships." *Anthropological Theory* 16(1): 98–130. doi:10.1177/1463499615626621.
- Mukumbira, Sebastian, and Heike Winschiers-Theophilus. 2024. "Implications of an Ecospatial Indigenous Perspective on Digital Information Organization and Access." *International Journal on Digital Libraries* 25: 241–48. doi:10.1007/s00799-023-00353-6.
- Munk, Anders Kristian, Mathieu Jacomy, and Asger Gehrt Knudsen. 2022. "The Thick Machine: Anthropological AI Between Explanation and Explication." *Big Data & Society* 9(1). doi:10.1177/20539517211069891.
- Oldman, Dominic, Martin Doerr, and Stefan Gradmann. 2016. "Zen and the Art of Linked Data." In *A New Companion to Digital Humanities*, eds. Susan Schreibman, Ray Siemens, and John Unsworth. John Wiley & Sons, Ltd, 251–73. <http://onlinelibrary.wiley.com/doi/10.1002/9781118680605.ch18/summary> (June 18, 2025).
- Pels, Peter, Igor Boog, J. Henrike Florusbosch, Zane Kripe, Tessa Minter, Metje Postma, Margaret Sleeboom-Faulkner, et al. 2018. "Data Management in Anthropology: The next Phase in Ethics Governance?" *Social Anthropology* 26(3): 391–413. doi:10.1111/1469-8676.12526.
- Peponakis, Manolis, Sarantos Kapidakis, Martin Doerr, and Eirini Tountasaki. 2024. "From Calculations to Reasoning: History, Trends and the Potential of Computational Ethnography and Computational Social Anthropology." *Social Science Computer Review* 42(1): 84–102. doi:10.1177/08944393231167692.
- Peponakis, Manolis, Anna Mastora, Sarantos Kapidakis, and Martin Doerr. 2019. "Expressiveness and Machine Processability of Knowledge Organization Systems (KOS): An Analysis of Concepts and Relations." *International Journal on Digital Libraries* 20(4): 433–52. doi:10.1007/s00799-019-00269-0.
- Pinker, Steven. 2007. *The Language Instinct: How the Mind Creates Language*. third edition. New York: Harper Perennial Modern Classics.
- Poli, Roberto, and Leo Obrst. 2010. "The Interplay Between Ontology as Categorial Analysis and Ontology as Technology." In *Theory and Applications of Ontology: Computer Applications*, eds. Roberto Poli, Michael Healy, and Achilles Kameas. Springer Netherlands, 1–26. http://link.springer.com/chapter/10.1007/978-90-481-8847-5_1 (May 4, 2025).
- Read, Dwight, and Giovanni Bennardo. 2007. "Cognition, Algebra, and Culture in the Tongan Kinship Terminology." *Journal of Cognition and Culture* 7(1–2): 49–88. doi:10.1163/156853707X171810.
- Ribes, David, and Geoffrey C. Bowker. 2009. "Between Meaning and Machine: Learning to Represent the Knowledge of Communities." *Information and Organization* 19(4): 199–217. doi:10.1016/j.infoandorg.2009.04.001.
- Rips, Lance J., Edward E. Smith, and Douglas L. Medin. 2013. "Concepts and Categories: Memory, Meaning, and Metaphysics." In *The Oxford Handbook of Thinking and Reasoning*, eds. Keith J. Holyoak and Robert G. Morrison. Oxford: Oxford University Press, 177–209.
- Seaver, Nick. 2017. "Algorithms as Culture: Some Tactics for the Ethnography of Algorithmic Systems." *Big Data & Society* 4(2): 1–12. doi:10.1177/2053951717738104.
- Seaver, Nick. 2018. "What Should an Anthropology of Algorithms Do?" *Cultural Anthropology* 33(3): 375–85. doi:10.14506/ca33.3.04.
- Sowa, John F. 2009. *Knowledge Representation: Logical, Philosophical, and Computational Foundations*. Pacific Grove: Brooks/Cole.
- Starn, Orin. 2022. "Anthropology and the Misery of Writing." *American Anthropologist* 124(1): 187–97. doi:10.1111/aman.13677.
- Van Der Leeuw, S. E. 2004. "Why Model?" *Cybernetics and Systems* 35(2–3): 117–28. doi:10.1080/01969720490426803.
- W3C. 2004. *OWL Web Ontology Language Reference*. <http://www.w3.org/TR/2004/REC-owl-ref-20040210/> (September 21, 2015).
- W3C. 2014. *RDF 1.1 Concepts and Abstract Syntax: W3C Recommendation*. <http://www.w3.org/TR/2014/REC-rdf11-concepts-20140225/> (May 30, 2025).
- Wing, Jeannette M. 2006. "Computational Thinking." *Communications of the ACM* 49(3): 33–35. doi:10.1145/1118178.1118215.
- Wolfe, Alvin W. 1978. "The Rise of Network Thinking in Anthropology." *Social Networks* 1(1): 53–64. doi:10.1016/0378-8733(78)90012-6.

Appendix. Illustrative OWL code for Figure 2

Indicative OWL code corresponding to Figure 2 of the paper. The code provides a possible representation of the modeling underlying the figure. It is intentionally simplified and is intended to illustrate the potential of OWL for expressing social phenomena, rather than to constitute a formal or complete ontology.

```
<?xml version="1.0"?>
<rdf:RDF xmlns="http://OntologyExample#"
  xml:base="http://OntologyExample"
  xmlns:owl="http://www.w3.org/2002/07/owl#"
  xmlns:rdfs="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:xml="http://www.w3.org/XML/1998/namespace"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#">
  <owl:Ontology rdf:about="http://OntologyExample">
    <rdfs:comment>Indicative code corresponding to Figure 2 of the paper Toward Non-
    Textual Representation of Social Anthropology: Modeling Cultures as Knowledge
    Graphs. This highly simplified approach is intended to demonstrate the potential
    of OWL for modeling social phenomena, rather than to constitute a formal
    ontology.</rdfs:comment>
  </owl:Ontology>

  <!-- Classes -->
  <owl:Class rdf:about="http://OntologyExample#Person"/>

  <owl:Class rdf:about="http://OntologyExample#Woman">
    <rdfs:subClassOf rdf:resource="http://OntologyExample#Person"/>
  </owl:Class>

  <owl:Class rdf:about="http://OntologyExample#Man">
    <rdfs:subClassOf rdf:resource="http://OntologyExample#Person"/>
  </owl:Class>

  <!-- Object Property -->
  <owl:ObjectProperty rdf:about="http://OntologyExample#is_married_to">
    <rdf:type rdf:resource="http://www.w3.org/2002/07/owl#SymmetricProperty"/>
    <rdfs:domain rdf:resource="http://OntologyExample#Person"/>
    <rdfs:range rdf:resource="http://OntologyExample#Person"/>
  </owl:ObjectProperty>

  <!-- Individuals -->
  <owl:NamedIndividual rdf:about="http://OntologyExample#John">
    <rdf:type rdf:resource="http://OntologyExample#Man"/>
    <is_married_to rdf:resource="http://OntologyExample#Mary"/>
  </owl:NamedIndividual>

  <owl:NamedIndividual rdf:about="http://OntologyExample#Mary">
    <rdf:type rdf:resource="http://OntologyExample#Woman"/>
  </owl:NamedIndividual>

</rdf:RDF>
```

‘It is important that you see my personal opinion clearly’

Exploring political micro-influencers’ authenticity labor on Instagram

Carina Kraft

Adelaide University, Australia

✉ carina.kraft@adelaide.edu.au

Abstract

Authenticity is a central concept in social media influencer scholarship and typically associated with influencers’ economic success. For political influencers, perceived authenticity relates to their credibility. However, the ways in which they cultivate and sustain authenticity remain under-researched. This paper examines political influencers’ authenticity labor on Instagram, focusing on practices by nano- and micro-influencers. Employing a case-study on a recent liberalization in German abortion regulations, the analysis draws on in-depth interviews with nine influencers who publicly addressed the issue on their profiles. The findings highlight the centrality of cultivating authenticity in the political realm, revealing influencers’ strategies, tensions, and the integration of political and personal spheres in their political content. Distinctively, political influencers curate ideologically coherent Instagram profiles but face pressures to maintain this coherence. The study adds political influencers’ own perspectives to scholarship on authenticity on social media and discusses implications for how they may shape political online discourse by personalizing debates and emphasizing value-driven engagement.

Keywords: Social media influencers, political influencers, authenticity, micro celebrities, public discourse, social media

1. Introduction

In recent years, social media influencers have increasingly used their platforms to share political and socially relevant content and their potential impact on public political discourse has been acknowledged (Andi, 2021; Goanta & Ranchordás, 2020). ‘Political influencing’ (Riedl et al., 2021, p. 2) concerns influencers sharing political posts alongside other content and those who focus exclusively on political issues (Riedl et al., 2023; von Sikorski et al., 2025), often addressing lifestyle political and underrepresented topics (Newman et al., 2024). An example is the German YouTuber Rezo known for entertainment videos, whose 2019 video criticizing the climate policies of the Christian Democratic

Union (CDU) sparked widespread debate and led to public and scholarly speculation about whether it contributed to the CDU's decline in the 2019 European Parliament elections (Allgaier, 2020; Dambeck, 2019; Peter & Muth, 2023).

While political influencing has more recently attracted scholarly attention, research on influencers originally focused on their engagement and economic potential in areas such as fashion, beauty, and gaming (Hudders et al., 2021). Influencers' potential to influence their followers has been linked to several characteristics. Among these, authenticity – appearing true to themselves – is especially important (Banet-Weiser, 2021). Their commercial success has often been associated with their ability to cultivate authenticity (Abidin, 2015; Hund, 2023) and influencers perceived as authentic were more trusted and their brand endorsements were perceived as more credible by their followers (Pöyry et al., 2019; Wellman et al., 2020). In this study, authenticity is understood not as a fixed personal trait but as a contextual and performative practice shaped by platform cultures and presumed audience expectations. Building on scholarship on influencer culture and mediated authenticity (e.g., Arnesson, 2023; Balaban & Szambolics, 2022; Banet-Weiser, 2021; Pöyry et al., 2019), authenticity is approached here as a form of authenticity labor (McRae, 2017) through which influencers strategically align personal values, experiences and public self-presentation.

Despite its centrality and its contingent nature, authenticity remains an under-researched concept in the study of political influencing. Broader discussions have acknowledged the performative and strategic aspects of authenticity in political realms (Banet-Weiser, 2021; Gaden & Dumitrica, 2014) and research has examined how authenticity is performed and evaluated in relation to politicians, particularly in digital and social media contexts (e.g., Enli, 2015; Luebke & Engelmann, 2026; Manning et al., 2017). There is emerging empirical evidence that political influencers perceived as more authentic hold higher mobilization potentials (Harff & Schmuck, 2024). However, there is a lack of research that examines the perspectives and experiences of influencers in engaging in political content production – why and how they engage in political content sharing and how they cultivate, negotiate, and sustain authenticity when sharing such content. This gap is particularly pertinent at the micro-influencer level, influencer with smaller follower numbers, where perceived authenticity and credibility are linked to higher follower engagement (Lee et al., 2024).

This paper addresses this gap through interviews with nine political nano- and micro-influencers and draws on a case study of liberalizing an abortion law in Germany, a case that received widespread societal attention. By exploring political influencers' perspectives on their shared posts, the analysis provides nuanced insights into the experiences, considerations, and tensions they navigate when sharing political content and the ways they cultivate authenticity. This study foregrounds their self-perceived authenticity labor and adds nuance to the concept of authenticity labor typically examined from an audience-focused standpoint. A better understanding of political influencers' own perspectives shaping their authenticity labor offers insights into how they navigate their role in shaping political awareness and participation online and sheds light on the evolving nature of political discourse on social media.

2. (Political) social media influencers

Social media influencers are often conceptualized as 'everyday, ordinary Internet users who accumulate a relatively large following' (p.1) through strategic self-presentation and sustained audience engagement (Abidin, 2015). Their fame originates on social media platforms, setting them apart from influential users such as celebrities, politicians and professional athletes (Abidin, 2018; Khamis et al., 2017). Influencers typically engage in lifestyle-oriented areas such as travel, fashion and beauty or gaming and monetize their content (Abidin, 2018; Hudders et al., 2021) and categorizations range from nano- and micro- to mega-influencers depending on follower numbers, with smaller influencers perceived as more relatable (Campbell & Farrell, 2020) and credible (Lee et al., 2024) and thought to have larger persuasive impact and engagement rates (Park et al., 2021).

Influencers' impact has been linked to a variety of characteristics, including their ability to build online communities (Winter et al., 2021), cultivate (para)social relationships (Balaban et al., 2020) and being perceived as credible (Balaban et al., 2020; Riedl et al., 2021), trustworthy (Ruiz-Gomez, 2019) and authentic (Balaban & Szambolics, 2022; Hudders et al., 2021; Khamis et al., 2017). Their reach is commonly measured by follower numbers, with distinctions ranging from nano- to micro-, macro- and mega-influencers (Ruiz-Gomez, 2019). While larger follower counts indicate higher potential reach (Hudders et al., 2021), smaller influencers tend to generate proportionally higher engagement (Goanta & Ranchordás, 2020). They are often regarded as more relatable, credible and authentic than larger influencers, fostering stronger follower relationships and enhancing their persuasive potential (Campbell & Farrell, 2020; Lee et al., 2024; Park et al., 2021).

Increasingly, influencers share political and socially relevant content (Gonzalez et al., 2023; Riedl et al., 2023). Such content ranges from sharing information or personal opinions, encourage participation in petitions, demonstration or other civic activities, to promoting sustainable lifestyles and re-sharing political posts from news outlets or other influential users. Some influencers focus exclusively on political issues while others only occasionally address them and engage in other thematic areas like beauty or gaming (Riedl et al., 2023; von Sikorski et al., 2025). Political influencer content spans the political spectrum and includes both formal issues such as elections, policy debates, or party politics – as exemplified by the German YouTuber Rezo – and lifestyle-oriented issues with political significance (Gonzalez et al., 2023; Suuronen et al., 2022). A focus lies on topics that receive limited mainstream media attention, including climate change, reproductive rights or mental health (Newman et al., 2024). What counts as 'political content' is often blurred and shaped by the socio-cultural context in which it is produced and interpreted (Gonzalez et al., 2023).

Research has linked following political influencers to greater political interest among their audiences (Harff, 2022), increased accessibility of political information (Schmuck et al., 2022) and enhanced political participation both online and offline (Dekoninck & Schmuck, 2023). Theoretical perspectives on political influencers have drawn on the concept of opinion leadership (Dekoninck & Schmuck, 2023; Harff, 2022; Katz, 1957; Lazarsfeld et al., 1948; Winter et al., 2021), which describes non-professional communicators who gather, process, and (re-)share information, thereby influencing their audiences. Their role as communicators is fostered by the values they represent, their expertise and their position within social networks (Katz, 1957). Other scholars have emphasized the notion of micro-celebrity (Senft, 2008) highlighting influencers' careful self-branding strategies and efforts to maintain an authentic digital identity (Marwick, 2013; Pöyry et al., 2019). Emerging scholarship on political influencers highlighted that perceived authenticity is associated with mobilizing political participation (Harff & Schmuck, 2024). Taken together, these notions alongside foregrounded characteristics of influencers earlier in this section warrant a closer examination of authenticity as an overarching concept and strategic practice to cultivating economic and, presumably, political impact.

3. Authenticity and (political) micro-influencers

With the rise of social media, cultivating authenticity has become a strategic tool for brands, influencers as well as politicians to direct audience attention online (Gaden & Dumitrica, 2014; Hund, 2023). Authenticity in social media influencer scholarship is typically broken down into facets such as perceived sincerity, genuineness and credibility (Pöyry et al., 2019) and associated with presenting uniqueness, realness, transparency, originality and truthfulness (Balaban & Szambolics, 2022; Schwarz & Williams, 2020). However, there are no objective criteria to assess whether someone is authentic or not. Authenticity is highly contextual, culturally dependent and socially constructed, it 'functions in particular ways for particular individuals and groups in particular circumstances' (Schwarz & Williams, 2020, p. 7). In this sense, authenticity is negotiated, manufactured and perceived between a source, the influencer, and their audience, the followers but never fully attained (Balaban & Szambolics, 2022; Khamis et al., 2017).

For influencers on social media, cultivating authenticity has been denoted a ‘messy concept’ (Banet-Weiser, 2021, p. 142). They are navigating an ever-changing line between being true to themselves and relatable to others to cultivate authenticity. They present their content in ways regarded as sincere, coherent and legitimate by followers (Arnesson, 2023; Banet-Weiser, 2021; McRae, 2017). They avoid being perceived as ‘fake’ or sharing ‘staged’ content that does not align with followers’ perceptions of influencers’ core values and, in contrast to celebrities, often skillfully share personal information (McRae, 2017). Additionally, influencers respond to shifting platform trends and functions (Leaver et al., 2020) and balance their self-presentation with monetizing content and engaging in collaborations that are ‘on brand’ (Pöyry et al., 2019; Wellman et al., 2020). Hence, authenticity is approached as a relational and performative practice influenced by platform logics and the expectations of audiences, not a fixed personal trait. Strategically navigating these demands and tensions that might arise lies at the core of what scholars have termed authenticity labor (McRae, 2017). The following section introduces theoretical and empirical perspectives on authenticity labor, with particular attention to its relevance to political influencers.

3.1 Theoretical and empirical notions on authenticity labor of political influencers

Authenticity labor can be understood as an ongoing and often ambiguous effort of influencers to perform and sustain an ‘authentic’ online persona (McRae, 2017). Studying audience responses to lifestyle bloggers, McRae (2017) observed how these bloggers manufactured an authentic presence by cultivating, what the author called, personal authenticity, ethical authenticity and extra/ordinariness – appearing true to themselves, staying consistent with their values, and balancing relatability with aspiration. These aspects highlight the multifaceted and sometimes paradoxical nature of authenticity labor and are reminiscent of how influencer practices have been conceptualized and examined so far.

The conceptualization of influencers as micro-celebrities, whose self-branding strategies involve shaping a consistent, recognizable online presence their audiences can engage with, can be seen as a form of authenticity labor. Self-branding relies on using recognizable aesthetics, recurring themes or specific niche content in areas like travel, fashion, gaming or, in this case, politically relevant content (Marwick, 2013; Senft, 2013). Responsive to this demand, an analysis of Twitter/X user re-tweets revealed that more active users, those who have large follower numbers and regularly (re-)share content, tend to engage in one or a few topic areas. This topical consistency was discussed to relate to increased familiarity (Shi et al., 2023). Other empirical evidence supports the notion of using recognizable aesthetics. Followers evaluated photos of celebrities and influencers with findings showing that photo aesthetics perceived as congruent to their respective profiles contributed to attributed genuineness and credibility of a post (Pöyry et al., 2019). A case study of influencers’ profiles across different platforms emphasized how the use of ‘immediately recognizable visual aesthetics’ (p. 344) contributes to their perceived authenticity (Marwick, 2015) and Wellman et al. (2020) highlighted how influencers weighed collaborations against how well they fit into their overall online presence. Congruence of content can be easily assessed online with social media’s technical features enabling an evaluation against past content, heightening the imperative for consistency (Leaver et al., 2020).

At the same time, micro-celebrities’ authenticity is evaluated based on spontaneity (Marwick, 2013). Influencers sharing spontaneous content using Instagram Stories enhances feelings of closeness among followers (Arnesson, 2023; Leaver et al., 2020). Sharing seemingly spontaneous content also relates to perceived transparency (Schwarz & Williams, 2020). A content-analysis of conservative, reactionary political influencers’ micro-celebrity practices on YouTube highlighted how they presented themselves as relatable, responsive and transparent, sharing seemingly spontaneous, and “backstage” or behind-the-scenes processes’ (p. 213), thereby cultivating credibility and authenticity (Lewis, 2020, p. 213). These tensions between offering congruent, recognizable online content, yet sharing seemingly spontaneous

posts and stories that offer insights into influencers' 'real' life has also been identified by Balaban and Szambolics (2022) who offered an exploration of lifestyle influencers' self-perceived authenticity.

Allowing 'behind-the-scenes' glimpses to an audience is a way influencers convey 'realness,' a practice that has been conceptualized through Goffman's dramaturgical theory as performative (Kivisto & Pittman, 2013) and often been associated with performed authenticity (Schwarz & Williams, 2020). Abidin (2015) described this as 'disclosive intimacies,' where lifestyle influencers carefully curate private information to give 'followers the impression that they are privy to the private, usually inaccessible aspects of influencers' lives' (Abidin, 2015, p. 8). Disclosive intimacies as an authenticity labor practice has been found to rely on influencers' transparency, disclosure of personal experiences and presenting themselves as emotionally vulnerable to their audiences (Arnesson, 2023; Marwick, 2015). More broadly, this aligns with research on self-disclosure in social media, which shows that selective sharing can foster trust, strengthen parasocial relationships and enhance identification with a community (Chen & Sharma, 2013). However, 'realness' on social media is always limited and shared content is labored and edited to align with prevailing vernaculars, the trends, styles and aesthetics that dominate on social media platforms (Leaver et al., 2020). In this sense, disclosive intimacies exemplify how influencers mobilize both performative self-presentation and selective self-disclosure as part of their authenticity labor.

Overall, scholarship on authenticity labor in social media influencing remains fragmented, with different approaches emphasizing certain aspects of it. Audience-centered research and content analyses have provided valuable insights into practices perceived as coherent, 'real' and credible (e.g., Pöyry et al., 2019), complemented by Balaban and Szambolics (2022) who offered a rare account of lifestyle influencers' self-perception and considerations around manufacturing authenticity. Yet, the experiences and perspectives of political influencers when sharing political content remained sidelined in previous research. The ways in which political influencers engage in self-branding strategies are unclear, as are their perspectives on how they balance political and more personal content and engage with particular political debates. This is further complicated by including influencers who sometimes as well as those who exclusively share political content in dominant definitions as their strategies might differ. This gap is especially relevant for micro-influencers, for whom perceived authenticity and credibility are more closely tied to follower engagement than for larger influencers (Lee et al., 2024).

This paper addresses this gap by asking: *How and why do political micro-influencers engage in political content sharing? How does this relate to how authenticity is cultivated, negotiated, and sustained?* Drawing on a case study and interviews with political micro-influencers including their reflections on posts they shared, the analysis explores their own perspectives on performed authenticity labor, as detailed next.

4. Case study and context

This research engages with political micro-influencers' perspectives on political content they shared in relation to the repeal of section §219a of the Criminal Code (short: §219a) by the German parliament on June 24th, 2022. §219a prohibited medical professionals from 'advertising' abortions, including publicly informing whether abortions were offered, the methods used and the associated risks (The Federal Government, 2022). The repeal marked a liberalization of abortion laws by enhancing information accessibility of abortions, sparking wider societal attention and contestation across political standpoints. The case has significance beyond Germany. Abortion rights are closely connected to wider struggles over reproductive justice (Baird & Millar, 2020), and the repeal occurred against the backdrop of restrictive changes in the US and Poland, as well as a continuing movement in Germany to remove abortion entirely from the Criminal Code through repealing §218 (Lau, 2022).

Abortion rights and reproductive equality have been central issues for feminist movements (Baird & Millar, 2020). Addressing these topics and advocating for changes in abortion regulations on social media aligns with the current trend of popular feminism predominantly enacted online (Banet-Weiser, 2021;

Mendes et al., 2019). For feminists and feminist activists, social media platforms serve as tools for networking, raising awareness, educating others, and challenging dominant belief systems (Mendes et al., 2019). A key concept in feminist scholarship is ‘the personal is political’ (Hanisch, 1969), which involves sharing personal narratives to make political debates more intelligible. Commonly used by feminist activists, this practice brings politically relevant issues traditionally considered private and taboo, such as abortions or sexual harassment, into the public sphere. It politicizes and capitalizes on shared experiential accounts and calls for political change (Phipps, 2016). A prominent example is the #metoo movement, where women publicly disclosed their personal experiences of sexual harassment (Mendes et al., 2019). This practice of personal disclosure resonates with influencer strategies such as ‘disclosive intimacies’ (Abidin, 2015) and adds a political dimension to influencers’ authenticity labor. Curated self-disclosure can thus function as a strategic tool to frame political issues and mobilize participation, highlighting the relevance of examining authenticity in political influencing. At the same time, the distinction between feminist activists and political influencers has been challenged as overly simplistic. Scharff (2023), for example, argues that such distinctions risk trivializing political influencing while overlooking how commercial and platform logics increasingly shape feminist activism as well. Rather than representing clearly separate categories, activism and influencing can therefore overlap in practices such as self-disclosure, issue advocacy, and negotiating the platformization of content. This overlap was also reflected in the interviews, where participants described navigating tensions between personal values, monetization, and algorithmic logics online. Building on this perspective, feminist activist research offers a useful lens for understanding political influencers’ engagement with lifestyle-related or historically underrepresented political issues.

As outlined next, the case study facilitated the identification of relevant political content and potential interviewees and provided a contextual framework for exploring their perspectives on cultivating and sustaining authenticity labor.

5. Method

5.1 Sample

The analysis is grounded in semi-structured interviews with nine political micro-influencers on Instagram, exploring their perspectives on their authenticity labor when sharing political content in the case of liberalizing abortion regulations in Germany. Interviews were conducted via Zoom between February and July 2023 and lasted between 34 and 72 minutes. The sample consisted of six women and three men, aged between 30 and 55. All interviewees had public Instagram accounts at the time of the interviews. For *tommy_schwarwel*, *ami_you* and *i03* political content covering various issues was their main topic of engagement while the other interviewees brought up political issues more or less regularly. Generally, interviewees focused their engagement within one or two main content areas. All interviewees supported the repeal of §219a. Those in the original selection of influencers who did not support the repeal either did not see the invitation to be part of the study, ignored it or declined an interview. Table 1 contains further information on participants.

5.2 Procedure

Interviewees were identified employing a hashtag search on Instagram (Jaramillo-Dent et al., 2022; Laestadius & Witt, 2022). Instagram was the chosen medium for this study as it is the most widely used social media platform in Germany (Newman et al., 2022), its associations with influencer culture and a shift toward user-generated political content (Leaver et al., 2020; Riedl et al., 2021). Moreover, Instagram offered affordances such as persistence, visibility and searchability that allowed for the identification of relevant content (Laestadius & Witt, 2022; Leaver et al., 2020).

Searched hashtags included #219a, #paragraf219a [paragraph 219a] and #schwangerschaftsabbruch [abortion] and the search was expanded according to co-occurring hashtags (Jaramillo-Dent et al., 2022). This initial search yielded 1,866 posts, which were manually screened to identify influencers. Selection criteria included public accounts belonging to genuine persons whose popularity originated online, with a minimum of 1,000 followers, qualifying them as nano- or micro-influencers (Abidin, 2015; Goanta & Ranchordás, 2020). Hence, influencer status of potential participants was analytically assigned based on follower count, presumed origin of fame and observable content practices in line with previous research outlined above. Accounts belonging to politicians, companies, political parties, and NGOs were excluded. In total, 68 influencer accounts satisfied the criteria, of which 66 could be contacted and were invited via direct messages on Instagram (two could not be messaged). Nine participants agreed to be interviewed and provided written consent to audio-recordings and, except one, to the use of their screenshots in interviews and reproduction for academic publications.

The semi-structured interview guide covered the following topics: participants' activities on Instagram and other platforms, their understanding of §219a, political interest and participation both online and offline, experiences with platform algorithms and the commercialization of content. The interviews formed part of a larger research project and aspects of authenticity labor discussed here were occurring naturally in the conversations and their significance emerged through data analysis.

In addition, the guide included a collaborative analysis of their posts related to the repeal of §219a, using a trace-interviewing approach (Dubois & Ford, 2015). Visualizations of influencers' posts that were identified during the hashtag search were screenshared and interviewees invited to reflect on their own post(s): 'Could you tell me how and why you created and shared this post?' Follow-up probing questions such as 'What was your goal by sharing this post?' or 'What was your perception on how followers responded?' encouraged deeper reflection. The interviewer also shared observations about the posts, 'I noticed a few things in particular...' prompting participants to elaborate, provide context, or contest these interpretations. For instance, interviewees rarely discussed the timing of their posts, yet when asked about it they elaborated on their (non-)strategic intentions behind it. In one instance, an interviewee, heyveganjude, preselected multiple posts she shared covering reproductive rights that were collaboratively analyzed. At the end of the interviews, participants' consent was reiterated and they were offered a gift card for their participation.

Table 1. Participant information political micro-influencers at the time of the interview

#	Username/ Pseudonym	Age	Gender	Number of followers ¹	Main area of activity	Multiple posts on §219a	Number of Likes ²	Number of comments ²
1	tommy_schwarwel	54	m	12.000	Political caricatures	X	851	35
2	ami_you	33	w	2.080	feminism, party politics lifestyle		29	0
3	influencer03 (i03)	36	m	1.262	Medical Professional, Feminism, Climate change		45	1
4	heyveganjude	35	w	3.423	Feminism, veganism	X	295	26
5	lucielangston	38	w	2.572	Illustrator, lifestyle	X	85	4
6	justinepust	30	w	11.400	Author, feminism, community Sundays	X	1.126	87

7	ichdenkeja	32	m	5.948	Streetart, everyday and political thoughts	143	4
8	bettinaschipping	55	w	7.774	Everyday and political cartoons	441	19
9	kathrin.knoepfle	34	w	1.888	Performance art	131	5

¹ Number of followers at the time of the interviews; rounded to the nearest hundred if >10.000.

² Number of likes and comments are reported for the collaboratively analyzed post.

5.3 Data analysis

Interviews were recorded using the built-in audio-recorder in Zoom and transcribed using sonix.ai (Sonix, 2023). Data analysis software MAXQDA (VERBI Software, 2023) facilitated the analysis. Given the context of the research and the native language of the author, interviews were conducted, transcribed, and analyzed in German. Direct quotations and social media posts were translated by the author (German native).

The transcripts were coded adopting an inductive reflexive thematic analysis approach (Braun & Clarke, 2022). Analysis followed Braun and Clarke’s six steps, with codes and themes iteratively revised to identify patterned meanings in context. Initial codes captured interviewees’ experiences and perspectives, for example, their framing of §219a (e.g., feminist, personal, liberal) and their interpretations of their posts (e.g., informing about legislation, expressing opinions or values, conveying emotions, or drawing attention to the topic). These codes were refined and developed into broader themes, for example, ‘politicizing their personal experiences.’ Existing scholarship on authenticity practices served as sensitizing concepts (Blumer, 1954; Patton, 2002), guiding interpretation of influencer perspectives rather than defining the study design or coding process. Themes emerged from the material itself, with influencers’ practices as authenticity labor becoming especially salient through participants’ accounts.

The screenshots of political influencers’ posts included here serve as illustrations of interviewees’ own considerations and reflections, with consent for reproduction obtained. The posts were not analyzed separately using visual methodologies, as the focus lied on how influencers themselves created meaning and impact through them.

5.4 Ethical considerations

This research is informed by considerations for ethical internet research by the Association of Internet Researchers (AoIR) (franzke et al., 2020; Markham & Buchanan, 2012). Although a public profile with at least 1,000 followers was a selection criterion, based on this alone, it was unclear whether interviewees regarded themselves as public or private individuals and whether they wished to be recognized for their contributions. In line with AoIR recommendations, participants could decide whether they preferred to be cited under a pseudonym or with their Instagram username. They were also asked for explicit consent to screen-capture and reproduce their profiles and posts, with this consent reiterated during the interviews to give them the opportunity to reconsider. They were also given the opportunity to review their interview transcripts, which one participant chose to do. Eight participants agreed to the use of their usernames and posts, one decided to keep contributions confidential.

Moreover, participants were informed in advance about the case study and its potentially sensitive nature. They were provided with information on appropriate support services. The risk of misuse or instrumentalization of the findings, including the reproduction of influencers’ posts, was assessed as low given that participants had already shared this content publicly during a period of heightened debate using hashtags that facilitated finding their posts. While some interviewees reported experiences with hate speech, they still wished to be recognized for their posts and reinforced their support for liberalizations of abortion regulations. This research was approved by the author’s home university.

6. Findings

6.1 Centrality of authenticity when politically engaging online

The significance of authenticity for political micro-influencers emerged as a central finding in this analysis. Across interviews, political micro-influencers emphasized their political engagement online is grounded in their personal interest in and care about political matters addressed. To underscore this, interviewees repeatedly referred to their own political orientation and identity, their feelings in response to certain political matters and how they might be personally affected by political debates they engaged in. Some interviewees focused their political engagement on areas such as feminism, women rights and climate change (ami_you, heyveganjude, i03, justinepust) while others covered everyday political news and various political topics on their accounts (see Table 1). Still, they emphasized the importance that a political topic resonated with their political interests and perspectives (tommy_schwarwel, ichdenkeja, bettinasschipping).

With regard to the case study, abortion regulations and reproductive autonomy were key topics for ami_you, heyveganjude and i03 who identified themselves as feminists. As ami_you put it, ‘the topic of abortions is a perennial issue for feminists’ and it is of high importance ‘for the feminist agenda’, resonating with feminist scholarship (Baird & Millar, 2020). tommy_schwarwel has been invested in abortion rights for a long time and the value of freedom of choice has been something he never questioned, ‘I have been following the whole debate since I was a toddler [...] and I just grew up like that, “My Body, My Choice”.’ Publicly engaging in the repeal of §219a was of great personal importance for those interviewees who had experienced an abortion or were otherwise affected by reproductive inequality. Grounded in their experiences, justinepust and kathrin.knoepfle elaborated on the significance for them to support the repeal online as they primarily found resources from groups condemning abortions rather than reliable medical information. kathrin.knoepfle added, ‘for me there was somehow so very little to find where I could say “Ah, I can connect with that”.’ They highlighted how the legislation of §219a affected their lived experiences while drawing attention to how social media can function as a medium to find relatable accounts and sources (Leaver et al., 2020). heyveganjude underwent a sterilization and addressed this on her profile, linking her experience to the ideas of bodily autonomy and reproductive equality when addressing §219a, adopting a feminist framing for her engagement online (Baird & Millar, 2020).

Analysis showed how political micro-influencers’ personal interest in political issues built the foundation for their online engagement and their motives of addressing political issues. Interviews revealed how political micro-influencers wanted to be perceived as public allies to certain groups (heyveganjude, lucielangston), and first and foremost aimed to raise awareness for issues such as violence against women, queer, and trans rights (heyveganjude, justinepust), to break taboos, particularly in the context of abortion regulations (tommy_schwarwel, heyveganjude, kathrin.knoepfle), educate others (ami_you, i03, heyveganjude, lucielangston) and to mobilize their followers by advertising local demonstrations or sharing online petitions (ami_you, justinepust, i03).

Interpreted through the lens of authenticity labor, interviewees’ emphasis on engaging with political issues that aligned with their personal interests and lived experiences can be understood as the foundation of their authenticity work. This resonates with McRae’s (2017) notion of ‘personal authenticity’ – the effort to appear true to oneself. Following this notion, political micro-influencers are required to engage in strategic authenticity labor to convey and frame their engagement as reflecting their personal interests. The remainder of the analysis will explore the ways influencers cultivate their engagement and interpret their practices using established theories and approaches from influencer scholarship and feminist activism.

6.1.1 The personal is political: Politicizing experiential accounts of reproductive rights

heyveganjude and justinepust politicized their personal experiences and shared their personal narratives on reproductive rights linking it to the political debate on §219a. heyveganjude and justinepust publicly shared their experiences of having had a sterilization and abortion, respectively. Figure 1, left side, shows a post heyveganjude shared ahead of a vote in parliament on §219a. It is a picture of her after her sterilization procedure in a hospital robe, including a caption where heyveganjude argued for reproductive rights and bodily autonomy drawing on her own experience.



Figure 1. heyveganjude and justinepust politicized their experiential accounts of reproductive rights

Similarly, justinepust shared her experience of having had an abortion and adding that ‘my abortion has saved my life’. She then argued for a change in abortion regulations and tagged the Instagram Account of ProChoice, an NGO working towards reproductive equality, for more information. justinepust elaborated in the interview on her post and added ‘the moment I tell my story, it (the political issue in question) is somehow accessible to everyone’, aiming to initiate reflection in their followers and, in the case of justinepust, directing them to more information on reproductive rights. Politicizing their experiences, particularly experiences regarding reproductive rights, ties into the long-standing feminist phrase ‘the personal is political’ (Hanisch, 1969). Sharing personal stories has long been a feminist strategy to highlight social inequalities. From a contemporary feminist perspective, heyveganjude and justinepust’s posts can be interpreted as strategically cultivating political impact through accumulating experiential capital (Phipps, 2016).

From a social media scholarship perspective, heyveganjude and justinepust’s feminist practices resonate with strategic authenticity work. Opening up about their personal experiences and showing themselves vulnerable, can be seen as cultivating disclosive intimacies with their respective audiences (Abidin, 2015; Marwick, 2015). In support, heyveganjude opened the caption of her post stating that the picture is very personal, ‘never intended for the public’; a sentiment she reinforced in the interview: ‘I took this picture of myself after my sterilization - it’s a selfie I simply took for myself, and I never intended to share it.’ In sharing this picture, she quite literally allowed her followers a ‘backstage’ view into her life (Kivisto & Pittman, 2013). justinepust recalled how disclosing her abortion resonated with her followers, some of whom subsequently reached out to her and shared their own experiences with abortions. This can be interpreted as creating a space for other users to relate, fostering feelings of connectedness and strengthening (para-)social bonds with her followers, both aspects related to authenticity (Abidin, 2015; Arnesson, 2023). Moreover, drawing on communication theories such as source credibility (Hovland et al., 1953) more broadly, influencer practices of disclosing personal experiences can enhance their perceived credibility and trustworthiness with followers.

6.1.2 *The political is personal: Normatively leading with a political opinion*

Abortions are considered sensitive and private matters and, generally, people avoid talking about them. The public discourse on safe abortions and reproductive equality has been dominated by feminists and facilitated by feminist abortion scholarship (Baird & Millar, 2020). In the present study, political micro-influencers publicly addressed this topic and emphasized how they led with their perspective in the debate on §219a. This is interpreted as cultivating authenticity by breaking taboos, presenting their feminist and democratic values and offering insights into their political beliefs that are usually kept private.

ami_you (Figure 2, left) shared a photograph of a self-made demonstration poster that sat in her kitchen window, articulating her perspective in the debate on abortion rights. She emphasized: ‘I think it’s really important for the feminist fight and in the feminist context that we pay attention to this issue [...] it was important to me to comment on this again in some way.’ For lucielangston, creating illustrations is ‘highly political’ and she elaborated how she started ‘expressing myself politically in illustration’ as exemplified in the commissioned graphic novel showcasing the history of abortion regulations in Germany in the lead up to Safe Abortion Day, with the first page showing the feminist approach taken in the artwork (Figure 2, right). For i03 whose post very explicitly conveyed their opinion, ‘it is important [...] that you see my personal opinion clearly and [...] that people are then called up to take a stand’.

These accounts showed how political micro-influencers inserted themselves into the debate on reproductive rights by voicing their opinions. Moreover, educating followers on current abortion legislation was framed as a way to initiate opinion formation processes. In another post on the topic, lucielangston explained: ‘The idea was to highlight countries that are further along or, in our opinion, better positioned than Germany (in legalizing abortions) and to use them as sources of inspiration by showing their approaches to abortion regulations.’

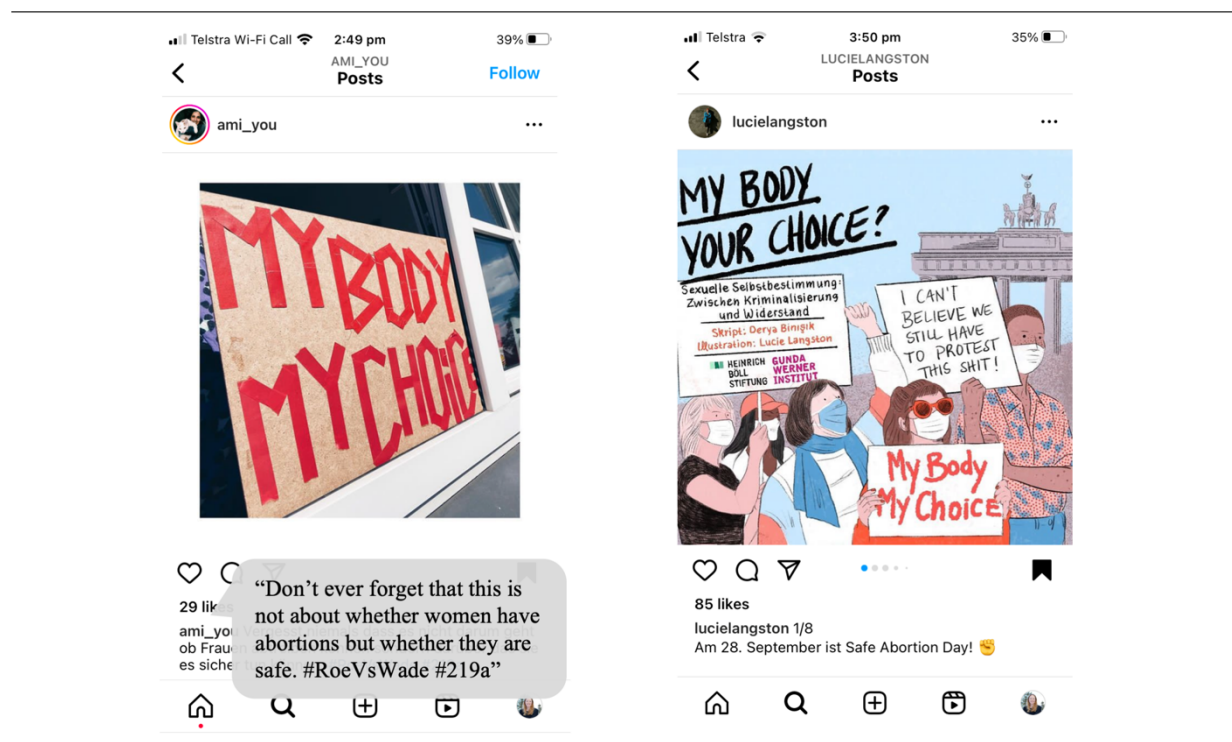


Figure 2. ami_you and lucielangston explicitly supporting the repeal of §219a

By vocalizing and openly calling for safe abortions, political micro-influencers broke the taboo of talking about abortions, as exemplified by kathrin.knoepfle saying, ‘it was also important to me to be a little more, perhaps just a voice [...] as it is a taboo subject’ and aligned themselves with the feminist discourse and exposed their political values and beliefs. Their practices can be also interpreted as normatively trying to shape their followers’ opinions by showing their own viewpoint and educating them on the issue (Mutz, 1998). Thus, the interviewees navigated authenticity by ‘reversing’ the feminist idea discussed in the previous section – the political is personal. They publicly showed their opinions which is seen as committing to a set of values, a way to cultivating authenticity (Balaban & Szabolcs, 2022) and political participation (Mutz, 1998). Insights into influencers’ personal thoughts and opinions are associated to followers’ perceptions of relatedness and connectedness over (shared) values (Abidin, 2015; Kivisto & Pittman, 2013).

6.2 Curating ideologically coherent profiles and self-branding efforts

The analysis showed how interviewees responded to a broader demand for authenticity on social media, one that extends beyond individual posts (Marwick, 2015; Pöyry et al., 2019) and involves strategically framing political messages (Gaden & Dumitrica, 2014). They developed political online identities by balancing political, private, professional, and commercial content. In reflecting on their political posts, interviewees consistently situated them within the coherence of their overall profiles, shifting the analytical focus toward what has typically been conceptualized as influencers’ self-branding strategies (Balaban & Szabolcs, 2022; Marwick, 2015; McRae, 2017).

6.2.1 Topical and ideological coherence

Political micro-influencers framed their political engagement such as in the case of §219a by clearly positioning themselves, their main area of interest and their political viewpoints on Instagram. Figure 3

exemplifies how heyveganjude utilized the bio feature. She reflected on the importance of using the bio feature to display her areas of engagement and political viewpoints:

The main reason why I got a public account, a blogger account, because then you can enter a lot more in the bio at the top [...] and I try to use my bio for as much information as possible; [...] For a while, I put 'please no inquiries' in my bio, but I wanted to make better use of the space now.

Similar considerations were shared by kathrin.knoepfle and i03 in the interviews who included political viewpoints and their main areas of engagement in their bio. The practice of summarizing the content area influencers primarily share on their profiles has been seen as emphasizing the uniqueness of their profiles (Balaban & Szambolics, 2022). In the present case, this unique presentation extends to influencers' political opinions and ideological orientations.

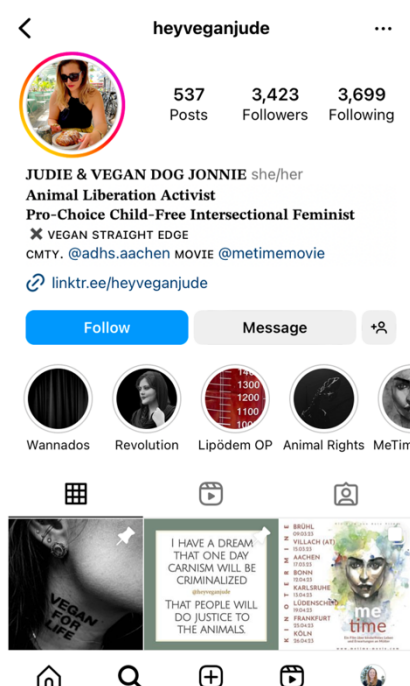


Figure 3. heyveganjude voicing her political perspectives utilizing the bio feature

Within these thematic frames, political micro-influencers repeatedly emphasized their ideological orientations, reflected in the area(s) and topics they were engaging in and the political perspectives and beliefs they presented through their content. heyveganjude emphasized her support of the case study by pointing toward several posts concerning the topic in the interview (Figure 4). She participated in a documentary, metime, which explores reproductive rights and shared art incorporating vulvas, typically interpreted as a feminist practice of empowerment (Lloyd, 2023). Similarly, justinepust highlighted how she addressed reproductive rights in her novels and shared annual posts on Safe Abortion Day. lucielangston detailed how she proactively sought out commissioned projects that present feminist perspectives:

There's an Instagram account [...] with illustrations of historical feminist figures who were involved with abortions in some way. I followed it and looked for opportunities to illustrate, like, "Hi, I'm Lucie, I really like your account. I'd like to illustrate something. Here's my Instagram account." And back then, it wasn't important to me whether I earned money. [...] I wanted to have a chance, but only with a topic I'm interested in. Then they immediately said, "Yeah, we don't have anyone for Safe Abortion Day this year."

Interviewees' efforts to construct and sustain an ideologically coherent profile has been found as a distinct practice of political micro-influencers within the self-branding framework (Marwick, 2015) while also reflecting broader notions of authenticity as performative on social media (Gaden & Dumitrica, 2014). Moreover, interpreting influencers' pursuits of maintaining a coherent and ideologically consistent profile through source credibility theory (Hovland et al., 1953) sheds light on how consistency not only relates to feelings of familiarity and adding to the distinctiveness of influencers, but also to perceptions of their reliability and expertise.

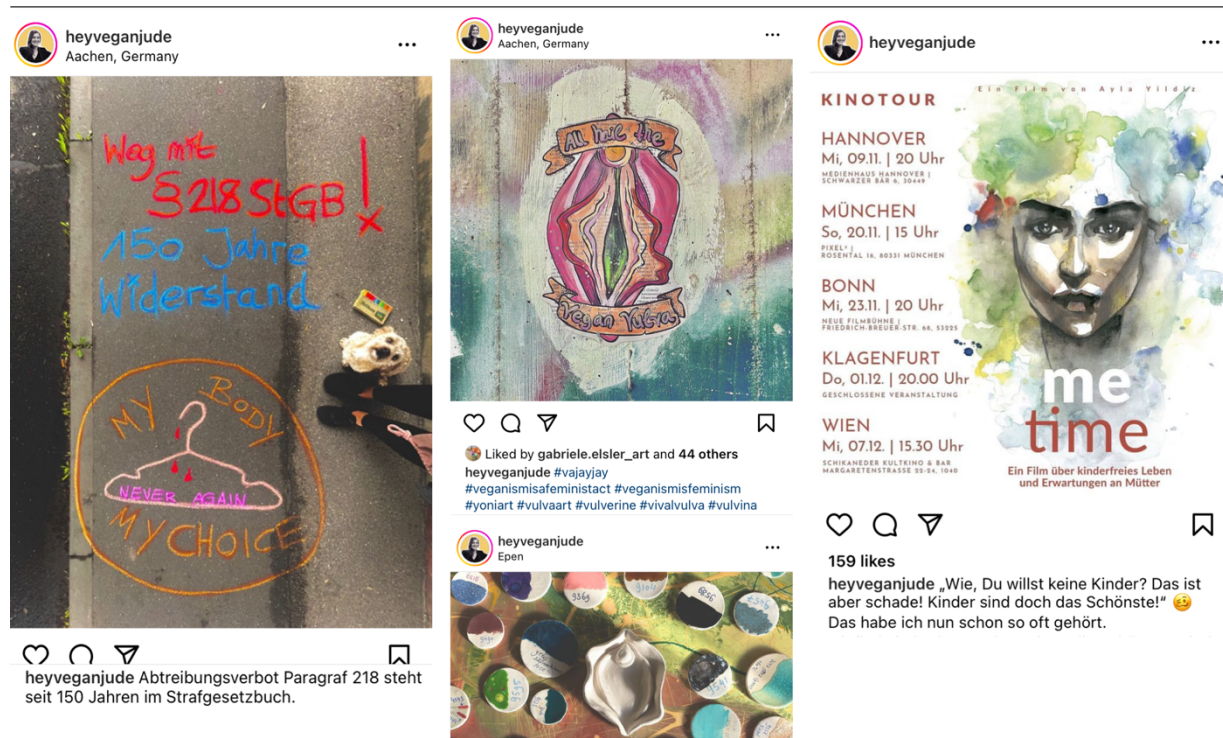


Figure 4. A selection of @heyveganjude's Instagram posts addressing reproductive rights

6.2.2 Commitment to personal values

Political micro-influencers continued to cultivate ideological coherence and authenticity by consciously aligning both their moderation practices and their collaborations with personal democratic values. While online discussions are one of the most contested issues among interviewees – some sought discussions, others avoided discussions – all participants were vigilant about discussions arising on their profiles and took on the responsibility for moderating those. For instance, tommy_schwarwel elaborated on a system using yellow and red colored emojis with public explanations to indicate non-tolerable comments. Following considerations of free speech, tommy_schwarwel would only report or block accounts if a person would consistently face 'red cards', sharing anti-democratic, extremist or racist statements.

Interviewees commitment to their values extended to their collaborative practices. They stressed the importance of disclosing commissions and aligning paid or artistic work with their political identities (e.g., quote by luciolangston earlier). By moderating interactions, maintaining transparency, and staying true to their values, interviewees engaged in practices that, when viewed through an 'ethics of authenticity', can be understood as cultivating credibility and authenticity online (Balaban & Szambolics, 2022; Wellman et al., 2020).

6.2.3 Showing 'realness'

Drawing on lifestyle influencers' practices, cultivating authenticity required self-branding efforts to use recognizable, Instagram-able aesthetics as well as the frequency and types of content shared (Marwick, 2013). Recognizable aesthetics, as seen on the profiles of *tommy_schwarwel* and *ichdenkeja* (Figure 5), were a common strategy political micro-influencer subscribed to as well:

The idea behind my posts is to always have a short text or saying on each slide; I want it to be as short as possible while still conveying what I mean. The initial idea behind the account was that I put out stickers and share them online, [...] it was a black vinyl sheet from the hardware store, which I cut out into a square. Then I wrote on it with a white pen. (*ichdenkeja*)

Supporting the relevance of recognizable aesthetics, *tommy_schwarwel* critically noted how diversifying from sharing his caricatures to showing other projects he worked on led to less follower engagement (see orange circle, Figure 5). Their experiences illustrate a striving to craft and sustain a coherent profile that might enhance a sense of familiarity among followers (Shi et al., 2023). At the same time, it highlights the tension between presenting a polished, consistent image and political stance while revealing the more diverse, 'real' facets of their life and work, a dilemma requiring constant authenticity labor efforts and negotiation for influencers (Balaban & Szambolics, 2022).

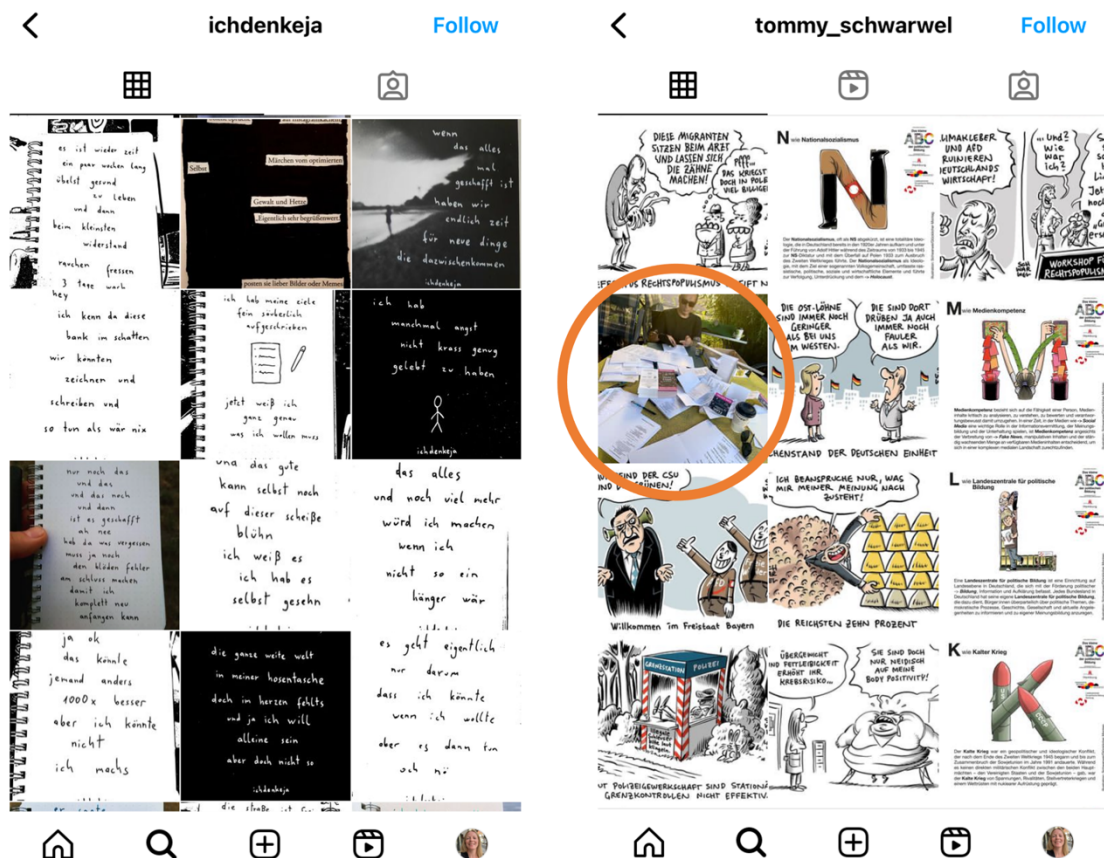


Figure 5. Aesthetical cohesion of political influencers profiles

Utilizing the self-branding framework, analysis showed how political micro-influencers' negotiation also encompassed the frequency of their posting (Balaban & Szambolics, 2022) and the integration of political, private, and professional content, previously associated with showing influencers' 'real', authentic life (Abidin, 2015; Arnesson, 2023). For instance, *tommy_schwarwel* and *bettinasschipping* posted (political)

comics almost daily, yet for other interviewees, engaging online is characterized by irregular, spontaneous sharing, and blurry lines between political and other types of content. heyveganjude corrected herself during the interview, saying her account ‘is actually a private – in quotation marks – “private” account’, acknowledging this blurriness between her private and public presence. She then highlighted her spontaneous posting behavior of sharing ‘inspiring food recipes that I tried myself, hiking photos and the occasional photo from a demonstration’ but also contemplated a ‘clean up’ of her profile to create a more coherent account after the interview that would show her political engagement more prominently.

Interviewees also used the Stories feature on Instagram for sharing more diverse and private content while keeping their overall coherence on their profiles. bettinasshipping, a cartoonist, repeatedly covered topics such as climate change in her comics and explained how she used Stories:

Often, I share things that have a connection to my cartoons, but not cartoons, photos. So, if I'm addressing climate issues in my cartoons and then go to a demonstration, I'll post a photo of myself at the demonstration. So, thematically, it's supportive (for the cartoons). Sometimes, I share motifs that are simply funny, like quirky signs or funny street scenes or something like that, not personal stuff. It's more like entertainment that fits this cartoon appearance, no food porn.

Other interviewees shared this approach, describing their stories as a ‘potpourri’ of content (lucielangston). Features such as Stories that are ephemeral promote spontaneity (Gonzalez et al., 2023), allowing political micro-influencers to show different facets of their life and interests while strategically balancing the pursuit of (ideological) coherence.

7. Conclusion

The significance of cultivating an authentic online appearance has been emphasized in social media influencer scholarship (Banet-Weiser, 2021) and is broadly associated with influencers' economic success and their persuasiveness, particularly that of influencers with smaller follower numbers (Lee et al., 2024; Park et al., 2021). When sharing political content, perceptions of authenticity are thought to contribute to perceived credibility, legitimacy and their mobilization potential (Harff & Schmuck, 2024; Lewis, 2020). How political influencers themselves cultivate and sustain authenticity, and how they experience and negotiate authenticity labor, remains under-researched. Drawing on interviews with nine political nano- and micro-influencers, the analysis explored their authenticity labor on Instagram, employing a case-study approach featuring a recent liberalization in abortion regulations in Germany. By engaging with theories of influencer culture and feminist activism, the study offers nuanced insights into what authenticity labor entails in this context and shows how political micro-influencers' authenticity efforts were distinctively shaped by their pursuit of ideological coherence and transparency.

Regarding the question of why political influencers engage in sharing political content, the findings show that the political micro-influencers in this study addressed topics and debates of personal interest on their public Instagram accounts with the intention of informing and mobilizing their networks. Political influencers emphasized that they shared political content because they personally cared about the addressed issues, situating their subjective authenticity at the core of their engagement. This finding nuances previous research that highlighted self-representation as a central motive for political content creation (Winter & Neubaum, 2016) and raises questions about concerns raised regarding inauthentic imitation and commodification of public concern (Phipps, 2016). While this does not suggest that such dynamics are absent among influencers more broadly, the practices observed here indicate that for political influencers with smaller follower numbers, sharing political content was primarily grounded in their personal interests. These personal interests and opinions were reflected in their authenticity strategies when addressing the case study, showing how their motivations for political engagement were intertwined with how they cultivated authenticity online. They opened up about their own experiences with abortions and publicly articulated feminist viewpoints in the debate, practices that are reminiscent of creating disclosive intimacies and relatedness over shared values (Abidin, 2015) and which resonate

with the feminist idea of politicizing the private and accumulating experiential capital for generating political impact (Phipps, 2016).

Analysis further showed how interviewees' engagement in the case study was framed by cultivating an online persona around their personal interests, engaging in authenticity labor and self-branding practices familiar from lifestyle influencers. This included inhabiting topical 'niches' online (Ruiz-Gomez, 2019) and sharing coherent content on their profiles (Marwick, 2015) while also allowing for spontaneous and more private content (Abidin, 2015). The adoption of these practices varied with some maintaining recognizable aesthetics while covering several topical areas, others focused on narrower topical niches but shared various content types. Most distinctively, findings highlighted influencers' commitment to ideological coherence and personal values. In this way, the study extends scholarship on self-branding and authenticity labor by showing how practices rooted in lifestyle and commercial contexts are adapted, contested, and repurposed in explicitly political ways.

The cultivation of authenticity for political micro-influencers emerges as both a personal and strategic practice. By foregrounding personal values and experiences, openly sharing political viewpoints and sustaining coherent online personas, influencers position themselves within broader political debates. These practices also function as strategic tools for directing attention as well as cultivating trust, credibility and political impact (e.g., Gaden & Dumitrica, 2014; Harff & Schmuck, 2024; Hovland et al., 1953). These findings add to our understanding of how political (micro-)influencers present themselves as personally invested and credible alternative information and political socialization agents for their followers. More broadly, their practices reflect how social media has transformed political discourse into a more personalized, participatory, and value-driven space (Andersen et al., 2020; Bennett & Segerberg, 2012).

It is important to note that the present focus lied on political influencers with smaller follower numbers (Ruiz-Gomez, 2019) and their experiences with balancing political and commercial content were limited. How these authenticity strategies apply to larger influencers remains a subject for future research, particularly given risks such as cancel culture or mass reporting, which may disproportionately affect influencers with broader reach and economic dependencies on platforms (Meisner, 2023). While this study takes a progressive outlook – highlighting Instagram as a space supporting information accessibility and democratic engagement – it is important to recognize that platforms also facilitate anti-democratic and extremist activities (Sunstein, 2017). Research shows that reactionary influencers may adopt similar authenticity practices (Lewis, 2020; Maly, 2020), suggesting that understanding authenticity labor is valuable across the ideological spectrum. Methodologically, the §219a case provided a useful anchor to examine how political micro-influencers negotiated and constructed authenticity within broader influencer and feminist contexts. By including influencers' reflections on their posts and reproducing them with their consent, this study offers a unique contribution to social media scholarship, illustrating how influencers construct political messages online.

References

- Abidin, C. (2015). Communicative Intimacies: Influencers and Perceived Interconnectedness. *Ada: A Journal of Gender, New Media, & Technology*(8). <https://scholarsbank.uoregon.edu/xmlui/handle/1794/26365>
- Abidin, C. (2018). *Internet Celebrity: Understanding Fame Online*. Emerald Publishing. <https://doi.org/10.1108/9781787560765>
- Allgaier, J. (2020). Rezo and German climate change policy: The influence of networked expertise on youtube and beyond. *Media and communication (Lisboa)*, 8(2), 376-386. <https://doi.org/10.17645/mac.v8i2.2862>
- Andersen, K., Ohme, J., Bjarnøe, C., Bordacconi, M. J., Albæk, E., & De Vreese, C. H. (2020). *Generational Gaps in Political Media Use and Civic Engagement: From Baby Boomers to Generation Z* (1 ed.). Taylor & Francis. <https://doi.org/10.4324/9781003111498>
- Andi, S. (2021). How and why do Consumers Access News on Social media? In N. Newman (Ed.), *Reuters Institute Digital News Report 2021* (10 ed., pp. 52–57). Reuters Institute for the Study of Journalism.

- Arnesson, J. (2023). Influencers as ideological intermediaries: promotional politics and authenticity labour in influencer collaborations. *Media, Culture & Society*, 45(3), 528-544. <https://doi.org/10.1177/01634437221117505>
- Baird, B., & Millar, E. (2020). Abortion at the edges: Politics, practices, performances. *Women's Studies International Forum*, 80, 102372. <https://doi.org/10.1016/j.wsif.2020.102372>
- Balaban, D. C., Iancu, I. R., Mustăţea, M., Pavelea, A., & Culic, L. (2020). What Determines Young People to Follow Influencers? The Role of Perceived Information Quality and Trustworthiness on Users' Following Intentions. *Romanian Journal of Communication and Public Relations*, 22(3), 5-19. <https://doi.org/10.21018/rjcpr.2020.3.306>
- Balaban, D. C., & Szambolics, J. (2022). A Proposed Model of Self-Perceived Authenticity of Social Media Influencers. *Media and Communication*, 10(1), 235-246. <https://doi.org/10.17645/mac.v10i1.4765>
- Banet-Weiser, S. (2021). Gender, Social Media, and the Labor of Authenticity. *American quarterly*, 73(1), 141-144. <https://doi.org/10.1353/aq.2021.0008>
- Bennett, W. L., & Segerberg, A. (2012). THE LOGIC OF CONNECTIVE ACTION: Digital media and the personalization of contentious politics. *Information, Communication & Society*, 15(5), 739-768. <https://doi.org/10.1080/1369118X.2012.670661>
- Blumer, H. (1954). What is Wrong with Social Theory? *American sociological review*, 19(1), 3-10. <https://doi.org/10.2307/2088165>
- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. SAGE Publications Ltd.
- Campbell, C., & Farrell, J. R. (2020). More than meets the eye: The functional components underlying influencer marketing. *Business horizons*, 63(4), 469-479. <https://doi.org/10.1016/j.bushor.2020.03.003>
- Chen, R., & Sharma, S. K. (2013). Self-disclosure at social networking sites: An exploration through relational capitals. *Information systems frontiers*, 15(2), 269-278. <https://doi.org/10.1007/s10796-011-9335-8>
- Dambeck, H. (2019). CDU-Verluste bei Europawahl. Der Rezo-Effekt - echt oder nur gefühlt? *Spiegel Online*. <https://www.spiegel.de/politik/deutschland/rezo-effekt-hat-er-der-cdu-geschadet-oder-den-gruenen-genuetzt-a-1270620.html>
- Dekoninck, H., & Schmuck, D. (2023). The “greenfluence”: Following environmental influencers, parasocial relationships, and youth’s participation behavior. *New media & society*, 26(11), 146144482311561. <https://doi.org/10.1177/14614448231156131>
- Dubois, E., & Ford, H. (2015). Trace Interviews: An Actor-Centered Approach. *International journal of communication*, 9, 2067-2091. <https://doi.org/https://ijoc.org/index.php/ijoc/article/view/3378/141>
- Enli, G. (2015). *Mediated Authenticity: How the Media Constructs Reality*. Peter Lang. <https://doi.org/10.3726/978-1-4539-1458-8>
- franzke, a. s., Bechmann, A., Zimmer, M., Ess, C., & Association of Internet Researchers. (2020). Internet Research: Ethical Guidelines 3.0. <https://aoir.org/reports/ethics3.pdf>
- Gaden, G., & Dumitrica, D. (2014). The ‘real deal’: Strategic authenticity, politics and social media. *First Monday*, 20(1). <https://doi.org/https://doi.org/10.5210/fin.v20i1.4985>
- Goanta, C., & Ranchordás, S. (2020). The regulation of social media influencers: An introduction. In *The Regulation of Social Media Influencers* (pp. 1-20). Edward Elgar Publishing. <https://doi.org/10.4337/9781788978286.00008>
- Gonzalez, A., Schmuck, D., & Vandenbosch, L. (2023). Posting and framing politics: a content analysis of celebrities’, athletes’, and influencers’ Instagram political content. *Information, Communication & Society*, 27(8), 1605-1627. <https://doi.org/10.1080/1369118X.2023.2285495>
- Hanisch, C. (1969). The Personal Is Political. <https://www.carolhanisch.org/CHwritings/PIP.html>
- Harff, D. (2022). Political content from virtual ‘friends’: How influencers arouse young women’s political interest via parasocial relationships. *The Journal of Social Media in Society*, 11(2), 97-121. <https://doi.org/https://thejsms.org/index.php/JSMS/article/view/1053>
- Harff, D., & Schmuck, D. (2024). Is authenticity key? Mobilization by social media influencers versus celebrities and young people's political participation. *Psychology & Marketing*, 41(11), 2757-2771. <https://doi.org/10.1002/mar.22082>
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). Communication and persuasion.
- Hudders, L., De Jans, S., & De Veirman, M. (2021). The commercialization of social media stars: A literature review and conceptual framework on the strategic use of social media influencers. *International journal of advertising*, 40(3), 327-375. <https://doi.org/10.1080/02650487.2020.1836925>
- Hund, E. (2023). *The Influencer Industry: The Quest for Authenticity on Social Media*. Princeton University Press.
- Jaramillo-Dent, D., Contreras-Pulido, P., & Perez-Rodriguez, A. (2022). Immigrant Influencers on TikTok: Diverse Microcelebrity Profiles and Algorithmic. *Media and Communication*, 10(1), 208-221. <https://doi.org/10.17645/mac.v10i1.4743>
- Katz, E. (1957). The Two-Step Flow of Communication: An Up-To-Date Report on an Hypothesis. *Public opinion quarterly*, 21(1), 61-78. <https://doi.org/10.1086/266687>
- Khamis, S., Ang, L., & Welling, R. (2017). Self-branding, ‘micro-celebrity’ and the rise of Social Media Influencers. *Celebrity studies*, 8(2), 191-208. <https://doi.org/10.1080/19392397.2016.1218292>

- Kivisto, P., & Pittman, D. (2013). Goffman's Dramaturgical Sociology: Personal Sales and Service in a Commodified World. In *Illuminating Social Life: Classical and Contemporary Theory Revisited* (6 ed.). SAGE Publications, Inc. <https://doi.org/10.4135/9781506335483>
- Laestadius, L., & Witt, A. (2022). Instagram Revisited. In A. Quan-Haase & L. Sloan (Eds.), *The SAGE Handbook of Social Media Research Methods* (pp. 581-597). SAGE Publications, Limited. <http://ebookcentral.proquest.com/lib/adelaide/detail.action?docID=7080076>
- Lau, M. (2022). Frauenrechte in Deutschland: Vor dem Streit. [Women's rights in Germany: Before the dispute.]. *Die Zeit*. <https://www.zeit.de/2022/27/deutschland-schwangerschaftsabbruch-spd-gruenen-debatte/komplettansicht>
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1948). *The people's choice: How the voter makes up his mind in a presidential campaign* (3rd ed.). Columbia University Press.
- Leaver, T., Highfield, T., & Abidin, C. (2020). *Instagram: Visual Social Media Cultures*. Polity.
- Lee, J., Walter, N., Hayes, J. L., & Golan, G. J. (2024). Do Influencers Influence? A Meta-Analytic Comparison of Celebrities and Social Media Influencers Effects. *Social media + society*, 10(3). <https://doi.org/10.1177/20563051241269269>
- Lewis, R. (2020). "This Is What the News Won't Show You": YouTube Creators and the Reactionary Politics of Micro-celebrity. *Television & New Media*, 21(2), 201-217. <https://doi.org/10.1177/1527476419879919>
- Lloyd, K. (2023). Embracing the Power of Yoni Art. <https://katiellloyd.com.au/embracing-the-power-of-yni-art/>
- Luebke, S. M., & Engelmann, I. (2026). "Vote for Me, I Am Authentic": Performed Political Authenticity on Social Media. *Media and Communication*, 14.
- Maly, I. (2020). Metapolitical new right influencers: The case of Brittany Pettibone. *Social Sciences*, 9(7), 1-22. <https://doi.org/10.3390/SOCSCI9070113>
- Manning, N., Penfold-Mounce, R., Loader, B. D., Vromen, A., & Xenos, M. (2017). Politicians, celebrities and social media: a case of informalisation? *Journal of youth studies*, 20(2), 127-144.
- Markham, A., & Buchanan, E. (2012). Ethical Decision-Making and Internet Research: Recommendations from the AoIR Ethics Working Committee (Version 2.0). <http://www.aoir.org/reports/ethics2.pdf>
- Marwick, A. E. (2013). *Status Update: Celebrity, Publicity, and Branding in the Social Media Age*. Yale University Press. <https://doi.org/10.12987/9780300199154>
- Marwick, A. E. (2015). You May Know Me from YouTube: (Micro-)Celebrity in Social Media. In P. D. Marshall & S. Redmond (Eds.), *A Companion to Celebrity* (pp. 333-350). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118475089.ch18>
- McRae, S. (2017). Get off my internets: How anti-fans deconstruct lifestyle bloggers' authenticity work. *Persona Studies*, 3(1), 13-27. <https://doi.org/10.21153/ps2017vol3no1art640>
- Meisner, C. (2023). The weaponization of platform governance: Mass reporting and algorithmic punishments in the creator economy. *Policy and internet*, 15(4), 466-477. <https://doi.org/10.1002/poi3.359>
- Mendes, K., Ringrose, J., & Keller, J. (2019). *Digital Feminist Activism: Girls and Women Fight Back Against Rape Culture*. Oxford University Press. <https://doi.org/https://doi.org/10.1093/oso/9780190697846.001.0001>
- Mutz, D. C. (1998). *Impersonal Influence: How Perceptions of Mass Collectives Affect Political Attitudes*. Cambridge University Press.
- Newman, N., Fletcher, R., Robertson, C. T., Eddy, K., & Nielsen, R. K. (2022). *Reuters Institute Digital News Report 2022*. <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2022>
- Newman, N., Fletcher, R., Robertson, C. T., Ross Arguedas, A., & Nielsen, R. K. (2024). *Reuters Institute Digital News Report 2024*. <https://ora.ox.ac.uk/objects/uuid:219692c0-85ce-4cab-9cbc-d3cdffabf62b/files/s2b88qf06s>
- Park, J., Lee, J. M., Xiong, V. Y., Septianto, F., & Seo, Y. (2021). David and Goliath: When and Why Micro-Influencers Are More Persuasive Than Mega-Influencers. *Journal of advertising*, 50(5), 584-602. <https://doi.org/10.1080/00913367.2021.1980470>
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Sage Publications.
- Peter, C., & Muth, L. (2023). Social Media Influencers' Role in Shaping Political Opinions and Actions of Young Audiences. *Media and Communication*, 11(3), 164-174. <https://doi.org/https://doi.org/10.17645/mac.v11i3.6750>
- Phipps, A. (2016). Whose personal is more political? Experience in contemporary feminist politics. *Feminist Theory*, 17(3), 303-321. <https://doi.org/10.1177/1464700116663831>
- Pöyry, E., Pelkonen, M., Naumanen, E., & Laaksonen, S.-M. (2019). A Call for Authenticity: Audience Responses to Social Media Influencer Endorsements in Strategic Communication. *International Journal of Strategic Communication*, 13(4), 336-351. <https://doi.org/https://doi.org/10.1080/1553118X.2019.1609965>
- Riedl, M., Schwemmer, C., Ziewiecki, S., & Ross, L. M. (2021). The Rise of Political Influencers—Perspectives on a Trend Towards Meaningful Content. *Frontiers in communication*, 6, 1-7. <https://doi.org/10.3389/fcomm.2021.752656>
- Riedl, M. J., Lukito, J., & Woolley, S. C. (2023). Political Influencers on Social Media: An Introduction. *Social media + society*, 9(2), 205630512311779. <https://doi.org/10.1177/20563051231177938>
- Ruiz-Gomez, A. (2019). Digital Fame and Fortune in the age of Social Media: A Classification of Social Media Influencers. *adResearch ESIC International Journal of Communication Research*, 19(19), 8-29. <https://doi.org/10.7263/adresic-019-01>

- Scharff, C. (2023). Are we all influencers now? Feminist activists discuss the distinction between being an activist and an influencer. *Feminist Theory*, 25(3), 454-470. <https://doi.org/10.1177/14647001231201062>
- Schmuck, D., Hirsch, M., Stevic, A., & Matthes, J. (2022). Politics – Simply Explained? How Influencers Affect Youth's Perceived Simplification of Politics, Political Cynicism, and Political Interest. *The international journal of press/politics*, 27(3), 738-762. <https://doi.org/10.1177/19401612221088987>
- Schwarz, K. C., & Williams, J. P. (2020). Introduction to the social construction of identity and authenticity. In J. P. Williams & K. C. Schwarz (Eds.), *Studies on the Social Construction of Identity and Authenticity* (Vol. 1, pp. 1-24). Routledge. <https://doi.org/10.4324/9780429027987-1>
- Senft, T. M. (2008). *Camgirls: celebrity & community in the age of social networks* (Vol. 4). Peter Lang Publishing.
- Senft, T. M. (2013). Microcelebrity and the Branded Self. In J. Hartley, J. Burgess, & A. Bruns (Eds.), *A companion to new media dynamics* (pp. 346-354). Wiley-Blackwell. <https://doi.org/10.1002/9781118321607.ch22>
- Shi, J., Lai, K. K., & Chen, G. (2023). Examining retweeting behavior on social networking sites from the perspective of self-presentation. *PloS one*, 18(5), 1-22. <https://doi.org/https://doi.org/10.1371/journal.pone.0286135>
- Sonix. (2023). *sonix.ai*. In <https://sonix.ai>
- Sunstein, C. R. (2017). *#Republic: Divided democracy in the age of social media*. Princeton University Press.
- Suuronen, A., Reinikainen, H., Borchers, N. S., & Strandberg, K. (2022). When Social Media Influencers go Political: An Exploratory Analysis on the Emergence of Political Topics Among Finnish Influencers. *Javnost - The Public*, 29(3), 301-317. <https://doi.org/10.1080/13183222.2021.1983367>
- The Federal Government. (2022). *Ban on advertising for abortions: Cabinet approves repeal of Section 219a*. <https://www.bundesregierung.de/breg-en/search/section-219a-2011846>
- VERBI Software. (2023). *MAXQDA 2024*. In VERBI Software. maxqda.com
- von Sikorski, C., Merz, P., Heiss, R., Karsay, K., Naderer, B., & Schmuck, D. (2025). The Political Role of Social Media Influencers: Strategies, Types, and Implications for Democracy—An Introduction. *American Behavioral Scientist*, 0(00), 1-17. <https://doi.org/10.1177/00027642251344208>
- Wellman, M. L., Stoldt, R., Tully, M., & Ekdale, B. (2020). Ethics of Authenticity: Social Media Influencers and the Production of Sponsored Content. *Journal of Media Ethics*, 35(2), 68-82. <https://doi.org/10.1080/23736992.2020.1736078>
- Winter, S., & Neubaum, G. (2016). Examining Characteristics of Opinion Leaders in Social Media: A Motivational Approach. *Social media + society*, 2(3), 1-12. <https://doi.org/10.1177/2056305116665858>
- Winter, S., Neubaum, G., Stieglitz, S., & Ross, B. (2021). Opinionleaders: a comparison of self-reported and observable influence of Twitter users. *Information, Communication & Society*, 24(11), 1533-1550. <https://doi.org/10.1080/1369118X.2019.1705374>