Journal of Computer-Mediated Communication, 2022, **28**:1, 1–14
https://doi.org/10.1093/jcmc/zmac023
Full-length Research Article

International Communication Association

OXFORD

Darknet imaginaries in Internet memes: the discursive malleability of the cultural status of digital technologies

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Abstract

Dominant discourses on the darknet present it either as a dangerous space with flourishing crime or a place for civic action and political activism. However, these depictions have been challenged in online popular culture, particularly in memes. By utilizing the concepts of double articulation of media and cultural imaginaries, this article reveals how memes shape popular definitions of darknet. Our qualitative, social semiotic content analysis of 505 memes reveals an ambiguous and complex vision of the darknet that both supports and demystifies the mainstream imagery. We introduce the concept of *discursive malleability of niche technologies* to describe how cultural practices reshape technologies, especially those with small userbases. Additionally, we present a "representational map of the darknet" and indicate how this contributes to social understanding of digital technologies more generally, and, not least why the analyzed memes may be read as lens exposing contradictory notions and policies regarding digital technologies nowadays.

Lay Summary

People use memes to discuss topics important to them and to tell others something about themselves. Our research shows how memes describe the darknet, the part of the internet that requires specific tools to access and makes users anonymous. We ask how memes portray the darknet and whether or not they support popular views about it. We analyzed 505 memes searching for different themes related to the darknet, asking what they mean for people's thoughts on the darknet and online spaces in general. Darknet is used by a relatively small number of people. This is the reason why it is an example of a discursively malleable technology. For these technologies, it is particularly important how people think of them as such views shape how they act and what they see as wrong or right. We also show how this contributes to discussing current changes of the internet.

Keywords: darknet, memes, social semiotics, cultural imaginaries, discursive malleability

Introduction

The darknet is a complex phenomenon in all its dimensions: technological, social, political, and normative. Technologically, it is a niche system (an amalgam of many technological solutions, see Reid & Fox, 2020), not used by most internet users, and it is often presented as technically challenging to use properly. Socially, it has a dangerous reputation: News coverage, television representations, and academic work often stress the illicit activities happening on it (e.g., Hognestad, 2021)—although the darknet has more mundane uses, as well. Politically, darknet technologies have been developed by states seeking information security, but they also are vilified by law enforcement (Ghappour, 2017). Unsurprisingly, then, the darknet's normative position is established through multiple discourses, i.e., ordered ways of speaking about a particular cultural object (Foucault, 1971). Our aim in this article is to trace how the darknet is conceptualized in popular discourse of internet memes. We find that not only do meme creators—an overlooked discursive community—contribute to the current debates about the darknet, but they also contribute to debates about digital technologies in general.

As Gehl and McKelvey (2019) define it, the darknet is an overlay network on top of the standard internet designed to anonymize both readers and producers of information. In fact, it is more precise to speak of "darknets" plural, since there are multiple systems, such as Tor, I2P, and Freenet. A key capacity of the darknet is anonymous web hosting and browsing, giving rise to the term "dark web" (Gehl, 2018). A related—and often conflated—term is "deep web," which refers to websites that standard search engines do not index (Bergman, 2001). While the "deep web" is considered to be massive, the darknet is relatively small in comparison to the rest of the internet (Sanchez & Griffin, 2019). For clarity's sake, we will consistently use the term "darknet."

These technical definitions, however, do not tell us much about the darknet's cultural significance. The first thing to note here is that the darknet is a relatively niche technology, used by only a small percentage of internet users (see Kovalchuk et al., 2021 for estimates). But, despite its low number of actual users, its socially shared definition is constructed more by its common cultural imaginaries, including understandings, expectations, and evaluations, than by people's actual experiences with it. Moreover, despite its niche status, the darknet's cultural significance goes far beyond the communities of its users because it epitomizes several key challenges of datafied societies (Hintz et al., 2018), including limits on users' privacy (Lyon, 2018), freedom of action and speech in online environments, and hence contemporary tensions regarding digital citizenship in general (Isin & Ruppert, 2015). Therefore, critical investigation of the popular

Associate editor: Teresa Correa
Received: 6 May 2022. **Accepted:** 23 September 2022

construction of the darknet imaginary will not only shed light on the darknet itself but also broader internet imaginaries. We will call the process of socially shaping a low-use, yet culturally significant technologies the *discursive malleability of niche technologies*, a topic further elaborated on in the "Discussion" section.

Popular culture has long been a sphere in which digital technologies have been redefined (Schulte, 2013). In this regard, the discursive power of internet memes is an increasingly important object of internet studies research (e.g., Shifman, 2013; Phillips, 2016; Milner, 2018). Our study builds on this work by investigating how internet memes about the darknet discuss dominant depictions of this particular technology and related communities. In particular, the article reconstructs the collectively created, complex, and often ambiguous definition(s) of the darknet produced in (and by) internet memes. Having a peculiar status within online discourses, internet memes—with their anonymous and collective authorship as well as their bottom-up nature that is subversive towards mainstream positions—contribute to popular perceptions of what the darknet is (e.g., who uses it and how?) and its normative evaluations (e.g., is it right/wrong or cool/uncool to use it/be there?).

Our analysis of memes about the darknet answers the following research questions:

1) How do internet memes describe and depict the darknet (and related technologies, such as the deep webs)? That is, how do internet memes contribute to conceptions of the darknet's characteristics, social practices, and norms?
2) How do these collectively created representations discuss—reinforce or question—hegemonic depictions and evaluations of this particular niche technology, such as those offered by journalists or academics?

This study is written in the theoretical and methodological perspective of cultural studies, supported by interdisciplinary scholarship (sociology, media studies, activism studies) on sociocultural phenomena of the darknet and, more broadly, digital technologies. Using a social semiotic visual analysis of 505 darknet-related images, we show how memes bring a diverse, polysemic, and sometimes contradictory matrix of themes that we categorize in the form of a "representational map of the darknet." Our work also resonates beyond struggles over the meaning of the darknet by showing how the analyzed memes contribute to discussions on the contemporary cultural status of digital technologies in general. As we will discuss, bottom-up pop-cultural definitions of digital technologies may be read as counter-public voices in debates about web commodification, enclosure, surveillance, and datafication.

Theoretical background

Double articulation of media and cultural imaginaries

In the article, we follow Silverstone's (1994) concept of double articulation of media. This approach orients us to both (a) a description of how media work (or are being used) in particular contexts and (b) a methodological approach to the symbolic/discursive dimensions of a particular technology when investigating its current sociocultural status. Any kind of medium is located in spatiotemporal settings while also being a text or symbolic message located within the flows of particular socio-cultural discourse (Livingstone, 2007; Silverstone, 1994).

We trace the second articulation of the darknet—its status as a text—to reconstruct its socio-cultural status. To explain the production of a shared definition of this medium, we utilize the concept of cultural imaginaries (recently Lyon, 2018; after Williams, 1958) consisting of symbolic and material work that is complex, context-related, and constantly reconsidered. In this perspective, any medium is defined not only by how people use it but also by how people think about it (Carey, 1983, p. 305). Thus, the darknet, being a niche medium with a relatively lower number of users (due to its higher threshold of entry than the standard internet), is defined only partially through people's uses of it. It is mostly defined by imaginaries: understandings, expectations, and evaluations that have no direct reference to the experience of its actual usage. The darknet is thus shaped in the minds and by the discursive actions of policymakers, journalists, academics, and the lay public—even including those who never use it.

Hegemonic conceptions of the darknet

Much of the discourse about the darknet is driven by moral panics (Alrasheed & Rigato, 2019; Gehl, 2018; Mirea et al., 2019). Moral panics (as understood by Cohen, 2011; see also Young, 2011) about the darknet are found among mass media and other "moral entrepreneurs" (e.g., political agents supporting web regulations policies) who produce depictions of the darknet as a threat to societal values and interests. This reflects broader, current discussions of web regulations, which "tend to cluster around 'liberating' or 'threatening' rhetoric" (Alrasheed & Rigato, 2019). The mainstream depictions of the darknet most often reach for the latter. As a space allowing its users better anonymity, the darknet is often seen as a tool for criminal activities such as the drug trade (e.g. Barratt & Aldridge, 2016), trade with stolen data, software, weapons, child abuse media (Høydal et al., 2017), terrorist groups, or hired killings (e.g. Roddy & Holt, 2020; Steel, 2019).

These studies, while accurately describing practices of some darknet users, may reinforce the idea of the darknet being a space of every imaginable dangerous practice, but the evidence that physical crime thrives on the darknet is at best anecdotal (Volpicelli, 2018) with only some recent studies on advertisements without the assessment of these being a scam (Gehl, 2021; Roddy & Holt, 2020). Additionally, when it comes to the drug trade, recent studies show that selling may be motivated not only by criminal or economic reasons but also by a kind of idealism, the belief that darknet ensures personal freedom, with drug use being seen as only part of a larger suite of personal liberties (Haasio et al., 2019).

Alongside the panic about crime is a panic about scale. A popular media belief is that the darknet is vast when it comes to content and the number of sites as compared to the clear web, but the opposite may be true (Sanchez & Griffin, 2019). Representations of the darknet as a malevolent space are present in news reporting as witnessed by Gehl (2016) who also discusses the second mainstream media conception of the darknet, i.e. "the idea that the dark web can preserve a valued liberal freedom: freedom of speech" (Gehl, 2016, p. 1222). There is research pushing back against the moral panic

position, considering the darknet as a space of online activism and a potential alternative for the oppressing state, commercial or cultural, or social forces (Gehl, 2018; Jardine, 2018). Without rejecting these representations, Gehl (2016) emphasizes that both determine the darknet's definitions or practices, shape its uses, and thus the relationship between power and freedom within darknet communities.

Internet memes discussing the darknet

Alongside hegemonic moral panics and more nuanced academic descriptions, we find internet memes contributing to the cultural imaginary of the darknet. Internet memes may be defined as (a) a group of digital items, images, or videos, sharing common characteristics of content, form, and/or stance, which (b) are created with awareness of each other and (c) are circulated, imitated, and/or transformed via the internet by many users (Shifman, 2013b; see also Wiggins, 2019, for the semiotic elaboration of this definition). While they are produced and horizontally distributed in online environments usually with the ludic intent of sharing humorous content, there is a growing volume of academic writing on how internet memes serve serious social purposes. In this regard, internet memes have been analyzed as a highly popular discursive tool for not only cultural, political, and consumer commentary (Gilbert, 2013; Milner 2013; Mortensen & Neumaye, 2021; Nissenbaum & Shifman, 2018; Wiggins, 2019) but also for socially significant processes of collective cultural/political identification (Coleman, 2015; Nowak, 2016; Nissenbaum & Shifman, 2017; Shifman, 2013a, 2013b). The memes' potential for being used as language and communicative space for group articulation (Hall, 2018) stems also from peculiar aesthetics and values inscribed onto them. While they normalize "ordinariness" and imperfection, internet memes also openly and purposely transgress norms of dominant cultural discourses (Douglas, 2014; Coleman, 2015; Philips, 2016, Nagle, 2017). By doing so, they may be seen as inherently political while belonging to the sphere of popular culture, the latter understood in a way that predates digital culture (see, for instance, Fiske, 1989), in which people apply their meanings onto collectively consumed culture texts and thus, in the broader process, negotiate dominant ideologies.

From this perspective, internet memes featuring the darknet are important for the general discursive depiction of the phenomenon in question as they discuss the darknet's dominant descriptions. The characteristics of internet memes, including their collective and anonymous authorship, spontaneous horizontal distribution, and, not least, "ordinariness" inscribed onto their form, communicate a coherent depiction of users themselves (Douglas, 2014) and their experience of a "common" and ordinary internet. As Wiggins (2019, p. 107) points out, in the context of the political potential of internet memes, it is more helpful to use categories like "community" or "publics" rather than "audience." Thus, in this regard, darknet memes may be seen as communicating the voice of meme creators while collectively contributing to a cultural definition of the darknet.

Therefore, we ground our analysis on the assumption that internet memes contribute to the "polyvocal political discussion" (Dynel & Poppi, 2021, p. 1) on what the darknet is and how it should be approached—legally and normatively. As any other pop-cultural modality, internet memes depicting the darknet include readings that are consonant with the hegemonic positions of the technology in question. However, they also refer to alternative conceptions of the darknet with oppositional readings that negotiate or even ridicule these dominant depictions found in journalism, mass media, or academia. Our analysis seeks to systematically reconstruct these depictions from darknet-themed internet memes.

Research design

Analytic procedure

The method used was a qualitative social semiotics content analysis (Hodge & Kress, 1988; van Leeuwen, 2004), in which the memes are understood as multimodal communicative acts combining verbal and pictorial elements that are analyzed on two levels of meanings: denotation (what people, objects, and practices are depicted) and connotation (more elusive, intertextual notions or representations). Therefore, memes are approached here from the position of a second articulation of media, i.e., texts located within the flows of particular socio-cultural discourse.

To meet the social semiotic analysis standards, we not only (a) analyzed internet memes as texts: actual instances of language in use comprising discursive structures of potential readings (Fairclough, 2003; Fiske, 1989), e also (b) went beyond simple textual analysis and considered: (i) contexts of analyzed images (including the "ordinary" internet in which the images are produced and distributed); (ii) notions predominantly inscribed onto the genre of internet memes (collective and anonymous authorship, and subversion toward mainstream esthetics and values; see Coleman, 2015; Gilbert, 2013); and (iii) discursive practices of internet memes' production and distribution (what memetic macros and pop-cultural imagery, including characters from movies, TV series, video games, etc., were used?).

We should note, that we position our study in the social semiotics methodological framework (e.g., O'Halloran, 2011) and follow its methodological claim to see how texts (a) fit into systems of textual production (how the reconstructed darknet's imaginary links to more general internet memes characteristics?) and (b) how they "articulate discourses in a given socio-historical conjuncture" (Kellner, 2002, p. 43) (here, the broader context of the current discussions on the internet regulation).

Data collection

Searching for memes was a four-stage process. In the first stage, we used the popular Google search engine to identify spaces where memes are used as forms of communication. We identified sites that aggregate darknet memes using the keywords "darknet memes," "dark web memes," and "darkweb memes." For each of the keywords, we looked through the results of the top ten Google search pages. We identified three sites with potentially the highest number of memes. These were Apsgeyser (apsgeyser.blogspot.com), 9GAG (9gag.com), and Reddit (reddit.com/r/DNM_MEMES/, reddit.com/r/darknet/, reddit.com/r/deepweb/) (Table 1). The second stage involved searching each of these sites using an internal search engine with the keywords indicated before and using a web browser image data scraping tool to download all the images (in the case of Reddit no internal search engine was used as the sites identified were already subreddits). To make the analysis coherent, we considered only images (containing graphics + text) and omitted a few memetic videos found in

Table 1. The sites from which the images were downloaded and the number of analyzed memes

Site number	Site name and web address	Total number of images downloaded	Number of memes analyzed
M01	Apsgeyser (apsgeyser.blogspot.com)	125	47
M02	9GAG (9gag.com)	901	55
M03	Reddit (reddit.com/r/DNM_MEMES/, reddit.com/r/darknet/, reddit.com/r/deepweb/)	2,620 (817, 1,174, 629, respectively)	111
Total from 3 sites		3,646	213
M04	Google Images	4,317	292
Total		7,963	505

the process. Although online videos may meet the definition of a meme (see, for instance, Shifman, 2013b) we believe these omissions do not affect the outcomes significantly due to the relatively large volume of the analyzed material. In the third stage, all downloaded images were examined manually and all non-memes, duplicate memes, or non-darknet-related ones were removed. We only included memes containing words indicating that they refer to the darknet, e.g., "darknet," "dark web," "tor" (onion routing), "silk road," and "cryptomarkets." This may have resulted in omitting relevant memes, but we found it a reliable way to judge whether memes should be analyzed further and this was compensated for with a large amount of collected data. After searching the three mentioned sites (Apsgeyser, 9GAG, and Reddit), in the fourth stage, we used the Google Images (GI) search engine, recognizing that it would allow us to collect memes from spaces we did not reach before. In the case of GI, we repeated the entire procedure, using the indicated keywords, downloading the images, and sorting them.

At all stages, the first author's work PC was used with a freshly installed browser and without logging on to the author profile thus minimalizing any potential impact of previous users' searches. Memes from GI were fairly consistent thematically with the ones we found earlier, hence we decided that we successfully "countered" algorithmic search and moved closer to the socially informed discursivity. A total of 505 memes meeting the set criteria were collected. The data was gathered in July 2021 and each meme was marked depending on the site it was downloaded from (M01 to M04) with the proper number (001 to 505), e.g., M01.001 or M04.505. In Table 1, we show the total number of images downloaded (including non-memes) from each site as well as the number of memes being finally analyzed. Additionally, we present the search process (the four stages) in Figure 1, for greater clarity.

Being aware of the limitations of our study—obscure and unstable rules of search engines algorithms (despite the above-mentioned countermeasures taken to eliminate the influence of these algorithms), various practices of memes usage that we hadn't reached—we do not treat the analyzed volume of images as representative. Instead, we think of choosing analyzed content as "cases" for these "best provide insight into the social phenomenon to be investigated" (Emmel, 2013, p. 74)— which is in line with the qualitative character of the study (Flick, 2007; Shifman, 2013a). However, we believe our analysis of a relatively large meme corpus compensated for these limitations.

The collected memes were analyzed in the following manner. First, two authors manually and separately went through the collected 505 memes and generated initial notes describing the contents (creating definitions and sub-categories). Then, those two authors separately classified the memes into broader themes/categories (these two rounds as the indicated denotation) and then they discussed the content. Memes for which there was no agreed interpretation were placed under the "other" category (all categories and the number of memes included for each one are presented in Table 2 in the next section). The "other" memes were highly abstract to the level that no meaningful readings could have been inferred from them. Having distinguished the main contents and themes of the material, we continued with a more detailed exploration, i.e., the indicated connotation, focusing on the most important themes and pinpointing their significance.

Findings

Memes analyzed in this article function as a collective popcultural contribution to cultural imaginaries (characteristics, social practices, and evaluations) of the darknet while signifying the difference between its users and non-users (Gehl, 2019). The analyzed memes also discuss how the darknet is depicted/constructed by the dominant discourse. In this section, we reconstruct these two sets of positions together as they comprise answers to our Research Questions 1 and 2—What is the darknet really like? Is it different from how it is portrayed in the dominant discourse? Hence, this reconstruction is conducted from the standpoint of the previously described second articulation of media. As mentioned above, the analyzed memes were classified into broader themes. This procedure is in line with the inductive nature of the study and helps us reconstruct the shared imaginaries—we have indicated nine themes presented in this section in more detail.

Due to the seemingly unlimited number of internet memes and their copies, the volume of the analyzed memes does not comprise a representative sample, thus any quantitative evaluation must be treated carefully. Nevertheless, in Table 2, we present the number of memes included for each theme. Considering the qualitative nature of our study the numbers provided are strictly illustrative and we present them to give a better understanding of the dataset.

Theme 1: The iceberg—the darknet versus the clear web

A significant amount of the analyzed material (43 memes) refers to how the darknet is related to other kinds of networks, such as the clear web and deep web. These memes often reach for a popular iceberg depiction to show that the deep web and the darknet are larger than what can easily be seen, found, and approached from the surface (although there are some exceptions arguing the proportions are the opposite) and that the darknet is the deepest part of the internet.

Even these simple and popular depictions have interesting memetic derivatives (Shifman, 2013), including those in which

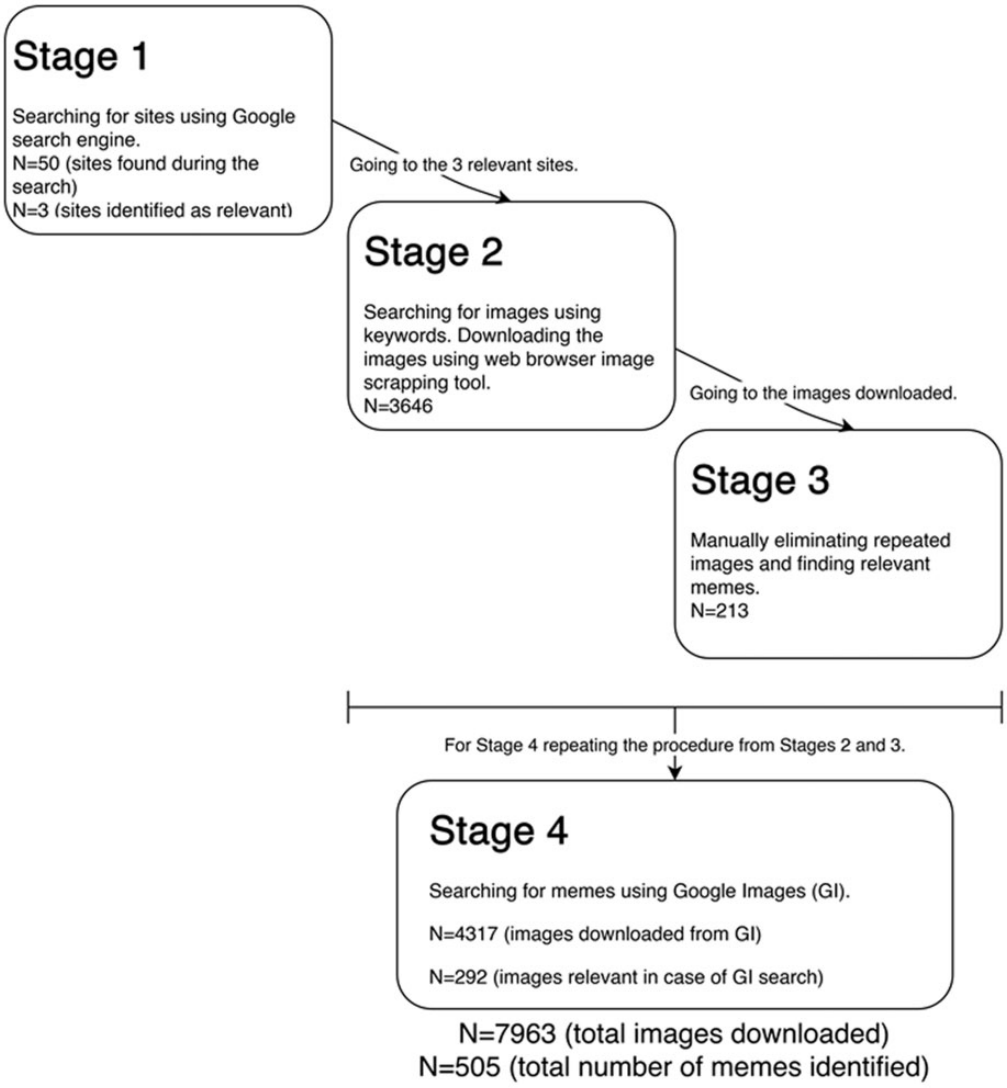

Figure 1. Flowchart of the memes search process.

Table 2. The number of memes included for each category/theme (109 memes were included in more than one category)

Theme/category	Number of memes included
Theme 1: the iceberg—darknet vs clear web	43
Theme 2: darknet "technology" and the insiders	90
Theme 3: shadowy darknet	91
Theme 4: unexpected side of the darknet	42
Theme 5: darknet dark humor	73
Theme 6: demystifying the darknet	45
Theme 7: darknet drug trade	112
Theme 8: Law enforcers	27
Theme 9: darknet as political activism	15
Other	72

at the bottom of the internet ocean, even deeper than the darknet, one can find unexpected characters. These include the main *Titanic* (1997) character of Jack Dawson played by Leonardo DiCaprio [M02_071], Billie Eilish (artistically being *some deep shit*—M04_263), Jiraiya of *Naruto* manga and anime series along with the characters of *Spongebob* animated series [M02_097]. Also, at the bottom, the motives have different kinds of connotations, i.e., *page 2 of Google search* [M01_038], *the bottom of wikipedia page* [M01_038] or *gay section of Pornhub* [M04_354]. While the latter (motives) refers to everyday practices of using the clear web, the former (characters) comprises a constellation of references obvious to popular culture-oriented internet users. Utilizing the idea of ocean depth, they depict iconic pop-culture figures, such as Spongebob or Leonardo DiCaprio, and, thus, realize their culturally inclusive potential inscribed into the popular status of the figures they depict.

Theme 2: Darknet "technology" and its insiders

This inclusive potential is realized also by material (90 memes) discussing particular technological solutions like various methods of encryption, such as the competition between the cryptocurrencies Bitcoin and Monero. Some memes depict Bitcoin as potentially unsafe to use or generally discuss particular darknet cryptomarkets, or, even more specifically, the use of cryptocurrencies and how to validate payments [M03_206]. In this regard, these memes focus on how the darknet is perceived *from the outside* by presenting the darknet as a space populated by

technical elites. They thus envision darknet insiders with high degrees of technical competence.

These memes work as a cultural dialect that not only frames certain content (e.g., practices of using the darknet) but also may communicate things about users themselves. They refer to users who can code-switch but are distinct from users who cannot naturally speak the dialect (Douglas, 2014). This mechanism may be explicitly depicted in the meme itself, as in the derivative of the *Virgin vs. Chad* template of *The Virgin DNM Noob vs. The Chad LTCM* [M03_199] juxtaposing the alpha darknet user with the beta rookie. Interestingly, the meme refers not only to the required technical skills and community knowledge as the key ways these two are distinguished but, in line with the original memetic template, refers also to stereotypically perceived cisgendered masculinity (the noob *buys pre-rolled weed because of his tiny hands* while the Chad has *massive forearms from operating TDPs*, standing for Technical Data Packages). However, in the analyzed sample there are also memes referring to other, non-normative body types; these memes self-ironically contribute to a cultural trope of failure (e.g., failure to live up to gender norms) typical for some online communities discussed below (Figure 2).

Community inward-oriented memes not only signify distinction between community members and outsiders but also regulate uses by highlighting practices (a) perceived as unwanted, (b) in bad taste according to the community's aesthetics (like using cheesy vendor names or particular street fashion choices), (c) violating norms (not following one of the community's *bibles*, that is, an informal sets of rules regulating darknet practices), or (d) potentially harmful (irresponsible practices of buying/selling illegal items).

Theme 3: The shadowy darknet

Ninety-one memes analyzed refer to the darknet as a space that is *dark* in the sense of gloomy, obscure, mysterious, and potentially dangerous. These memes present the darknet as capable of transforming those who enter or experience it for the worse due to the drastic, improper, nasty, or immoral practices performed there. Many of these do not refer to anything specific, instead alluding that the darknet is *shadowy* and *one must never go there* [M01_024] or *never again* [M04_274] as its experience makes dark jokes not funny anymore [M04_490], transforms you into a zombie-like creature [M01_025], or makes you a scared horror movie character [M04_332]. Thus, this content—although vague and not referring to anything in particular—seems to support the dominant moral discourse of the darknet as a space solely comprised of illicit activities. However, rather than merely condemn the darknet by supporting the image of the darknet as a place that is dangerous and thus not for everyone, these memes also support the elitist notion that the darknet is for the experienced, and, therefore, not for noobs: *scared? oh, how adorable* [M04_364].

Theme 4: The unexpected side of the darknet

A common theme of 42 memes is humorous depictions of negative, unexpected effects of users entering the darknet, usually for the first time, just to learn they (or a family member) are a subject of human trafficking, hired killing, or other criminal activity the darknet has been associated with. For instance: *When you're browsing the dark web and see yourself live on the hitman's sniper cam* [M01_008]; *When you're browsing the dark web and see yourself on sale with the same date delivery* [M04_372]; *When you order a 3yo kid on dark web and your son gets kidnapped* [M01_043]. This self-victimization is playful and self-deprecating as the user becomes not only the subject of illegal activity but also is worth—financially, but also in other aspects—less than expected: *You find yourself on darkweb |on a slave trade hub | with blood type and health sheet |50% off right now!* [M02_091]; *U go on the dark web | U see yourself for sale | "2 in stock" | "3 sold" | 1 star out of 5 | "TL; DR, a disappointment—The original father"* [M02_100].

While this content refers to negative depictions of the darknet as a space for illegal—indeed, reprehensible—activity, any normative judgment is suspended in favor of an excuse for a chance to indulge in self-ridicule. The latter kind of humor is typical for the culture of failure inscribed into internet memes and communities that use them (Douglas, 2014). In this regard, failure—personal, emotional, economic, etc.—fits well with more general aesthetics and normative evaluations tied to internet memes (Nagle, 2017), including the normalization of imperfection, validation of things that are normal, ordinary, or even ugly, and not least, mockery of serious dominant cultural discourses (Douglas, 2014). Here, darknet memes reach for a gloomy negative discursive position and treat it as pop cultural source material to make transgressive inside jokes instead of a serious contribution to debates about the normative value of the darknet.

Theme 5: Darknet dark humor

A significant number (73) of the analyzed memes is naughty (Fiske, 1989): they contain humorous content that is subversive towards the norms of mainstream media. These memes consist of jokes based on really dark humor by depicting practices allegedly performed on the darknet that are illegal and undisputedly wrong, like hired killings, live-streamed killings, human trafficking, rape (including of children), pedophilia, and many more. Naughty internet memes are produced and read according to pop cultural online logic of *lulz* with its vulgar, provocative, offensive, and cynical humor (Milner, 2013; see also Wiggins, 2019, pp. 130–155 for considering memes as a form of art by making a connection to Dada and Surrealist movements). The aesthetic and normative framework tied to it consciously and openly breaks the rules of what can be said and shown (and, thus, laughed at) in the media and as such is typical for internet memes as pop cultural online media content (Phillips, 2016). All these memes on pedophilia or human trafficking (Figure 3) are used to create a humorous and shocking effect in utterances aiming for cultural transgression as an end in itself.

This ambivalence is quite typical for online popular culture which fluctuates between democratic potential and superficial vulgarity (Sørenssen, 2009). As shown in Dynel's and Poppi's works (2018, 2021), creative dark online humor (including memes) communicates "users' ideologies" (2018, p. 382) and humorous memes may contribute to the aforementioned "polyvocal political discussion" (2021, p. 1). In darknet memes, democratic potential is realized by acts of collective bottom-up contribution to discussions defining the darknet and specifying how it should be organized in terms of practices and institutional and normative frameworks. The potential, however, can be weakened by the process of "depoliticization" when some of the critical aspects of analyzed internet memes are diminished in favor of pure playful

Figure 2. Example of memes discussing users themselves (at the top *The Virgin DNM Noob vs. The Chad LTCM* [M03_199]; at the bottom the meme embracing the culture of failure [M04_410]).

amusement (Shifman, 2013a,b)—especially when the latter is achieved by dark humor utilizing taboos like pedophilia or overt racism.

Theme 6: Demystifying the darknet

There are, however, memes that directly discuss the dominant stereotypical notions referring to the darknet (45 memes analyzed). They demystify it as a space of obscure actions that are illegal and make fun of popular hacker stereotypes, e.g., a hidden-faced persona with a hoodie on in front of the computer screen in a dark room (*criminal guy doing criminal things on the Darknet*—M02_084), or criticize how overused the term 'darknet' is (*say 'darknet' one more time*—M04_252). Also, they ridicule the most popular visual metaphors of the iceberg [M02_084], or *The Matrix*-like green digits/letters in the black background [M03_111]. They also suggest practices on the darknet are more ordinary by depicting common actions (just *copy/paste*—M03_111) performed by people not connected with criminal practices, often living with their parents [M03_159] or *in parents basement* [M03_182]. This thread of internet memes uses discursive meta-commentary to reject notions of the darknet sustained by dominant discourses (e.g., mass media, television) (Figure 4). Meanwhile, however, the aforementioned community-oriented internet memes support notions of high competence required to be part of the community using the darknet is more than just using a copy/paste command. We argue that these demystifying memes establish the community's voice in two ways: It rejects popular discourses about the dark web (including moral panic discourses) while producing an exclusive, elitist, and sometimes ironic stance that appropriates stereotypical notions of darknet users as drug vendors or "nerds" living in basements.

Theme 7: Darknet drug trade

One hundred and twelve analyzed memes refer to practices of selling or buying drugs. These practices are depicted both as indisputably illegal, since both vendor and client have to keep it secret, but also not morally problematic for anyone involved. Indeed, the memes show a lack of any moral evaluations, instead focusing on different aspects of the everyday experience of participation in encrypted drug markets,

Figure 3. Example of memes on human trafficking [M02_087] and pedophilia [M01_023].

especially the logistical problems of shipping and receiving drugs through the mail.

The memes often refer to the struggles faced by clients who seek to buy drugs online. These include memes about problems such as choosing vendors or securing transactions (*when you owe your coke plug 10K but market just stole your whole escrow*—M03_123). Some memes refer to problems receiving packages without neighbors or family members noticing or dealing with impatience over delivery delays: *when you order a gram of weed and tracking hasn't updated in four days*—M03_129; *Patience is a virtue? Aint nobody got time for that*—M03_173; *when you receive your very first DNM pack: welcome to downtown's Coolsville*—M03_135, DNM standing for Dark Net Market; or the one wittily depicting reasons for delivery delays—*My drop* [which stands for delivering the ordered package]*/Christmas/Thanksgiving/Veterans Day/DNM Pack*. They refer also to couriers as an important part of the supply chain depicted: *I like the Fedex guy because he's a drug dealer and don't even know it* [M01_035]; *All of you who work for Fedex, UPS, and USPS—you da real VMP* [M03_161] (with the meme creator probably misspelled and used VMP instead of MVP, i.e., Most Valuable Player).

Altogether, these memes normalize darknet drug trade. By refusing to perform any moral evaluations and discursively positioning the practice in question on the level of logistics and technical organization, they complement the dominant depictions of the darknet as a space for illegal activities. Thus, these memes indirectly discuss the normative aspect of dominant discourses but not the illegal practices themselves. The memes' discursive position contributes to the insiders' voice articulating their experiences, concerns, and difficulties, and the drug trade is depicted as a common everyday practice with its everyday problems like any other activity.

In this sense, popular internet memes on the darknet drug trade work as a counter-discourse to the dominant narratives on the darknet. This imaginative community of shared experience may, for instance, use the popular meme template of Bad Luck Brian, epitomizing the culture of failure, to normalize selling/buying drugs (Figure 5).

Theme 8: Law enforcers

The counter public voice expressed through internet memes also represents enforcers (Interpol, the U.S. Federal Bureau of Investigation or Drug Enforcement Agency, etc.) and their actions as obviously problematic (27 memes). In our findings, the collective author/user of the meme is always situated against enforcers (*Nice try, FBI*—M01_035; *When you sign for that pack but then you hear "Department of Homeland Security"* – M03_137) or potential enforcers when the drug trade client becomes paranoic when waiting for the ordered package: *me trying to remember if I've seen that mailman before* [M03_184]. The enforcer surveilling the user works as the figure supporting negative evaluation of other practices performed on darknet (for instance, *FBI agent* is as disgusted with the porn watched by the user as himself—M04_269). Therefore, these memes join other classes of memes in sustaining and signifying boundaries between community members and outsiders—in this case, authorities seeking to prosecute drug trade participants. In doing so, these memes further contribute to constructing an identity for darknet community members.

Theme 9: The darknet and political activism

Only 15 analyzed memes are overtly political, making normative claims that the darknet is a valuable political tool. These memes negotiate dominant media discourse by showing the darknet as a space for civic action and a tool for activism (one of the hegemonic positions) while negotiating or openly distancing from its gloomy and evil face. Such a small number of memes falling under this category may indicate that directly political aspects of the darknet are relatively less significant in the overall popular memetic depiction of the technology in question (we, however, make this claim cautiously as our outcomes are not inferred from a representative sample).

A popular depiction used in this context is the masked figure of Anonymous, a symbol of a loosely structured hacktivist collective epitomizing the combination of hacker ethics with anarchist internet counterculture. This figure advocates for freedom of speech and the right to privacy, refusing

Figure 4. Meme with a discursive meta-commentary aimed to demystify overly estheticized imagery of dark web associations.

Figure 5. Two Bad Luck Brian memes—[M04_218] and [M04_330].

mainstream norms and engaging in subversive fun (Coleman, 2015). The figure is used on memes highlighting, for instance, hacker actions against child pornography sites [M01_041, M04_348, and also, without the Anonymous reference, M03_208] or articulating Anonymous imagery with the darknet [M02_055]. Other related memes with directly political messages often refer to the darknet as a space free from state and corporate surveillance with Google and Facebook depicted as main villains [M02_066; M03_209; M04_220]; as supporting users' privacy [M02_076]; and as enabling free distribution of information from whistleblowers (for instance, *the deep dark reaches the internet—they're coming to get you, Hillary*—M04_244).

Representational map of the darknet

As presented above, the bottom-up voice on the darknet is complex and inconclusive and discusses several issues in various contextual positions: users' characteristics, practices performed, and normative evaluations. These three hardly ever go in line; however, several coherent positions may be reconstructed. Nine themes that we extracted from the analyzed material contribute to the cultural imaginaries that may be seen as a popular culture representational map of the darknet (Figure 6) reflecting bottom-up positions contributing to its second articulation. Here, we put particular themes into the chart (with sizes roughly corresponding to the theme's volumes) with the horizontal axis indicating if a theme compliments, negotiates, or openly opposes dominant darknet depictions, and the vertical axis referring to normative evaluations of depicted darknet-related characteristics, practices, and phenomena on the scale from negative/wrong to neutral to rightful/positive:

Taken as a whole, two broad semantic fields emerge from the corpus. The first semantic field is "The Darknet as Ordinary Yet for the Skilled" and it comprises four themes: (1) the iceberg, (2) darknet "technology," (6) demystifying the darknet, and (9) political activism. This field consists of positions negotiating or openly opposing dominant discursive depictions of the darknet while having mostly positive normative evaluations. Analyzed memes ridicule the moral panic (by, for instance, demystifying its gloomy character or ridiculing the stereotypical figure of a darknet user) and reconstruct its users as skilled and competent with hacker ethics inscribed into their actions and who are willing to act in the role of citizens or participate in public debates on internet-related issues.

The second semantic field is "The Darknet as Extraordinary Indeed and for the Toughest" and it comprises five themes: (3) the shadowy darknet, (4) the unexpected side of the darknet, (5) dark humor, (7) the drug trade, (8) law enforcers. These memes refer to practices depicted mostly as wrong in the dominant discourses and instead present users' allegedly true experiences of the darknet as a space for performing illegal practices (like buying drugs and thus normalizing the drug trade) and by comic and playful fantasies of other evil deeds done there including sharing child abuse content, human trafficking, or hired killings.

Interestingly, within both semantic fields, a typical darknet elite user is reconstructed. Where the fields differ is in normative evaluations: The first field ("Ordinary Yet for the Skilled") recalls a skillful professional following hacker ethics, while the second field (Extraordinary Indeed and for the Toughest) reconstructs an experienced and cynical traveler venturing the darknet for illegal reasons.

Discussion

The discursive malleability of darknet and why it matters

Grounding our arguments in the concept of double articulation of media (what users do in darknet versus what imaginaries refer to it), we see the darknet as discursively malleable. Since there is a relatively small number of people who use the darknet, its culturally shared imaginary is built predominantly through discourses instead of actual experience; hence our study highlights the second articulation of the darknet. In this regard, we introduce the concept of discursive malleability of niche technologies. Discursively malleable niche technologies are technologies that have outsized cultural impacts despite having a small userbase. In such cases, the lower the number of users of a particular technology, the greater the role of its second articulation in the process of developing its cultural status. Similar technologies in this area could include military technologies, e.g., nuclear weapons or the Falcon Heavy rocket; medical technologies, such as disease laboratories; or space technologies, such as rockets, shuttles, and space stations.

Much as popular debates over weapons systems inform broader policies about military funding, popular discussions of the darknet figure into policy choices about regulating the internet in general. The darknet's malleable discursive status makes it a flexible object for groups such as policymakers to deploy in larger discussions of internet regulation. While there are several studies on its hegemonic depictions, our analysis puts previously missing counter-voices at the front. Of course, these two strands of discourse, hegemonic and counter, do not go separately; they have long been entangled and draw from each other (Phillips, 2016; Maddox, 2018). In other words, as Wiggins (2020) argues, (hegemonic) media narratives usually have a serious impact on the composition of internet memes as the latter draw from dominant narratives by touching the subject matter with alternative perspectives on a given issue.

In this regard, the analyzed memetic collective depiction of the darknet is complex—heterogenic and normatively ambivalent—when it comes to how it refers to these dominant claims and evaluations. Hegemonic discourses on the darknet reach for moral panics in discussions on the web's closure and regulation. The mechanism of moral panic (see Reed, 2000) recalls particular deviant activities allegedly performed on the darknet, hence moral panics support particular policies, including the ones aimed at the internet's closure. Recent studies show how the internet is depicted in the dominant discourses as *the predator* and *portal to the dark side*, moving culture *in a darker, wicked direction* (Maddox, 2018; see also: Cassell & Cramer, 2008). Interestingly, the depictions of the portal to the dark (wicked) side are present in the memes analyzed here, which draw from the mainstream discourse by using spatial metaphors and normative warnings. Also, the analyzed memes reflect not only on the experience of using the darknet (as technology) but also several cultural anxieties of the digital age, including those of surveillance and self-surveillance or privacy. As shown in the findings, these tensions are vividly present and discussed in darknet memes.

In the broader context, as Reed (2000) argues, "the cultural management of technophobia" has been ever present in dominant discourses on domesticating digital technologies since the 60s by which definitions of "appropriate" and "inappropriate"

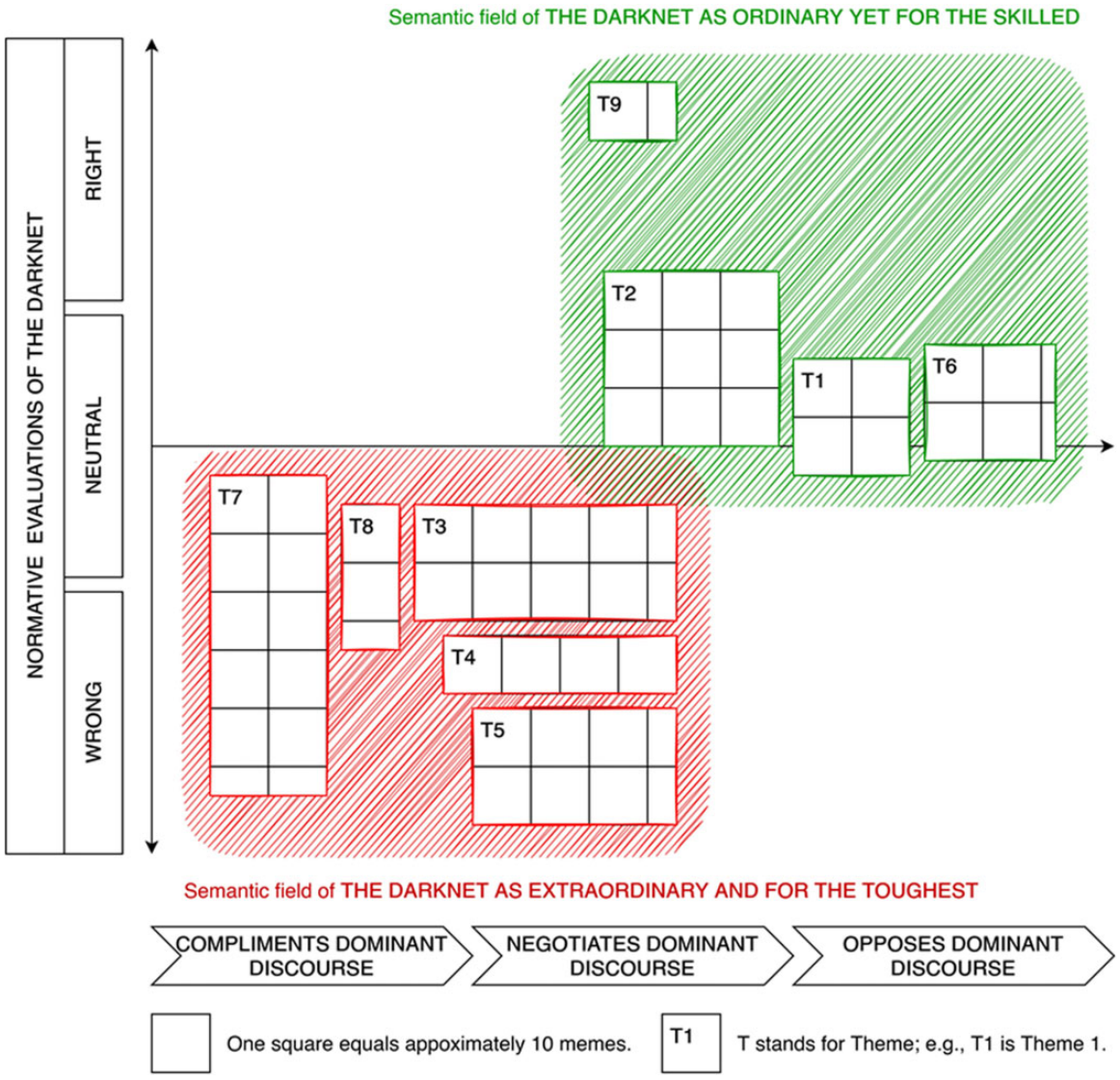

Figure 6. Representational map of the darknet.

computer uses have been naturalized. The dominant depictions of the darknet are in line with these normalizing attempts. In contrast, darknet memes analyzed here weave together dominant and counter-dominant depictions and positions. Internet memes on the darknet do not construct a coherent depiction. Instead, they contribute to an unstable, diverse, polysemic, and sometimes contradictory matrix of characteristics. The darknet, as the memetic subject, is "inherently unstable" (Maddox, 2018, p. 238), but despite this instability, these memes collectively contribute to the discursive construction of this niche technology.

Darknet memes in discursive struggles over the status of digital technologies

Reconstructing the social shaping of the discursively malleable darknet sheds light on conceptions and policies about digital media in general. The combination of "The Darknet as Extraordinary Indeed and for the Toughest" with "The Darknet as Ordinary Yet for the Skilled" reflects a more general complex discursive position of the internet, one marked by increasing social ubiquity combined with anxieties over several online phenomena.

In this light, the internet, on the one hand, connotes decentralization of power, deliberative democracy, collective action (e.g. van Dijk & Hacker, 2018), and the rise of digital commons (e.g. Loustau & Davis, 2012). On the other hand, it contributes to political repression, enclosure, misinformation, and commodification (e.g. McChesney, 2013; Vaidhyanathan, 2018). This combination of utopian and dystopian imaginaries (previously mentioned "liberating" and "threatening" rhetoric) of society in the digital age (see Fisher & Wright, 2001) reflects various discourses that shape policymakers' decisions (e.g. Milan & ten Oever, 2017). Here, the darknet—being a niche and discursively malleable—becomes a lens exposing the above-mentioned contradictory notions as well as conceptions and policies supporting them (Alrasheed & Rigato, 2019). The complex set of readings and evaluations in the representational map of the darknet illuminates these debates as the darknet is imagined as both a space of citizen activism and political freedom (including a way to avoid surveillance through technological mastery) and a threat epitomized by all the horrors of the shadowy place as it is depicted.

As noticed by Polizzi (2021), the media research on the internet's socio-technical imaginaries prioritizes questions

about the digital environment itself. Much less is known about how internet users draw on this utopian/dystopian thinking to understand the digital age and how they position themselves within it. Here, internet memes on the darknet reflect people's positions toward digital technologies. However, users' representations like the ones analyzed, flourishing in online environments, have been eagerly appropriated by dominant discourses. As a result, the democratic potential for new points of view or voices has been often reduced in the process (Maddox, 2018). Mainstream media covering internet-related phenomena not only strengthen wrong, sensational, and anxiety-inducing narratives but also ignore the subjectivity of the users. In traditional media, internet memes are depicted as "not created by users but [ones that] came from the Internet itself, thereby ignoring participatory culture and privileging a traditional media effects argument" (Maddox, 2018, p. 4).

Showing how internet memes describe the darknet and how this collectively created imaginary discusses the medium's hegemonic depictions responds to the need to include people's positions in debates on digital technologies. Memes creators' contribution to darknet's depictions works in this light as meta-commentary discussing regulatory attempts of the darknet or moral panics about it. Here, internet memes work as a space of global polyvocal expression in which multiple opinions and identities are negotiated (Milner, 2013). Hence the analyzed memes may be seen as a collective spontaneous popular contribution to debates on not only the darknet but digital technologies in general. This in turn can potentially shape policymakers' decisions on how to handle these, yet the issue of possible connections between the darknet's discursive status and related internet policies still begs more investigation.

As Maddox (2018, p. 11) argues, discussions on dominant discourses (like the one on the darknet presented here) reflect "larger cultural anxiety regarding digital spaces and cultures" (p. 11) to find "a sense of power over a technology that is not fully understood" (p. 11) and the darknet being discursively malleable technology fits here exceptionally well. Warnings about a dangerous or evil darknet in dominant discourses work as disciplining attempts of "configuration of users" aimed to persuade only certain forms of access and use and as such, are as old as computers themselves (Woolgar, 1990, p. 89). Therefore, discursive struggles over the darknet may be read as another chapter in the long history of digital technologies' cultural "formation" and its "naturalization" in the daily lives of its users (Reed, 2000). The broad subject of the process, that is, digital technologies, still undergo deep qualitative transformations and such analytical reconstructions shed more light on changes in how people use and think about the increasingly perplexing (Rubinstein & Sluis, 2013) phenomenon of the internet. As our analysis shows, the cultural imaginaries of the darknet play an important role here, with notions of novelty, elitism, and anxiety inherently inscribed into its discursive status.

Future research threads

Discursive recompositions of niche technologies are worthy of future studies. Our analysis shows that darknet studies may be effectively expanded beyond internet law, criminology, or internet policy studies. Research grounded in the cultural studies approach may reveal representations, notions, ideologies, or even practices being a missing part of the bigger picture of the technologies in question. This applies especially to discursively malleable niche technologies: How are other niche or obscure technologies articulated by and within popular culture imagery like internet memes? Are they seemingly fixed and ideologically or aesthetically coherent, or do they have unstable and contradictory definitions? And how might technologies with a small userbase affect debates about other, similar technologies with larger userbases? Our analysis confirms that hegemonic discourses are an important part of how the cultural status of the darknet is articulated. Such complex interrelations between dominant (media, political) and popcultural (internet-originated and diffused) discourses may also be researched more.

Additionally, the analyzed memes reconstruct mostly male users in the darknet and contain barely any representations of girls/women depicting the latter usually in the roles of victims. In this light, further studies may dive deeper into the gender aspects of cultural articulations of niche digital media. As computer technologies have historically been articulated to "masculinity" and "patriarchal practices" (see Reed, 2000 for an extensive discussion), these positions are still present in the recent discourses of moral panic feminizing the internet to manage cultural anxieties surrounding digital spaces, cultures, and technologies (Maddox, 2018). Further analyses of how cultural definitions of technologies with a high threshold of entry signify gender boundaries may shed more light on how discursively malleable objects reflect gender tensions. Again, if a particular niche technology has an outsized cultural footprint—and if such a technology is gendered (or raced, or subject to other markers of cultural identity) – how might that niche technology affect perceptions of other, related technologies?

Not least, from an anthropologic point of view, the darknet may be seen as an online space, the latter understood as defined by particular social practices (Moore, 1986, p. 116). From this perspective, comparative studies of various online spaces may show how digital technologies are articulated. For instance, reconstructions of discursive redefinitions of commercial platforms (social media) and online places like the darknet may give interesting and telling outcomes on their differences and—probably even more interesting—points of tangency.

Conclusions

Internet memes are fun. They are also serious business as they contribute to how people see things, especially obscure, malleable cultural objects like the darknet. In this regard, the study shows that darknet internet memes function as collective voices in the discussion with dominant descriptions.

A large amount of the analyzed material refers to the darknet as a space that is indeed obscure or potentially dangerous and the imagery contributes to the elitist notion of the darknet as a place that is not for everyone: The memes communicate a catalog of characteristics of users themselves, including required technical skills, community knowledge, and internal norms of conduct, including these related to the drug trade.

Other internet memes reach for an openly political frame when discussing the dominant media discourses. These bottom-up re-readings are inherently tied to articulations of experiencing ordinary "clear" internet and associated issues like limits of freedom of speech, the web's increasing corporate enclosure, freedom from surveillance, and other forms of excessive intrusion by third parties. These claims work as a reminder of what is at stake if encrypted and anonymized networks are shut down. However, their inclusion alongside

memes celebrating the technical skills of darknet users implies that being free of surveillance is the privilege of a select few.

In general, a representational map of the popular darknet depictions reveals how internet memes may work as the medium of the collective redefinition of the internet—how the latter is approached, used, and not least, evaluated. Darknet memes realize an exclusive, inward-oriented cultural function of supporting the community's particular regulatory normative position of how to act in the darknet. They also realize an outside-oriented political function of political advocacy as a mode of expression and public discussion (Shifman, 2013b). This bottom-up popular definition is equivocal and ambivalent, and for the very same reason, plays an important cultural role as a polyphonic contribution to current discussions on digital technologies in general. By analytical readings of content like darknet internet memes we learn not only about niche technology in question or associated practices, but also about aesthetic and normative characteristics of everyday internet use, its boundaries, and not least, framings in dominant discourses.

Data availability

The data underlying this article are available in Figshare, at https://doi.org/10.6084/m9.figshare.21206288.

Funding

This research is supported by the Polish National Science Center (Narodowe Centrum Nauki) grants: 2020/37/B/HS6/00941 and 2021/43/B/HS6/00710. The authors are grateful for the helpful feedback from the reviewers and editors.

Conflicting Interests

None declared.

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