

Let's Play War

Inside 4chan's intergroup rivalry, contingent community formation, and fandomized war reporting

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Summary of Key Findings

This project investigates two competing 4chan groups concerned with the war in Ukraine. We follow the pro-Ukrainian (/uhg/) and the pro-Russian (/chug/) threads and their fandomized war reporting. A journalistic register dominates the /uhg/ sets, and a strategic-logistic register dominates the /chug/ sets. The two threads fandomize the Ukrainian war through anthropomorphising and fictionalising nations and militaries in the form of memes.

Surprisingly, there is a lack in the differential political positioning of the threads. Their sensemaking is antisemitic in nature. The differences are more stylistic than substantial. /chug/ is more conscious about the community's identity, reflected in the abundance of logos, while /uhg/ images are more evidentiary, indicating a greater emphasis on reportage and points at original journalistic endeavours. There is a relative (in)visibility of memes to the mainstream web. The vernacularity of hyper-specific online discourse emerges through absence, especially so in /chug/, which represents a vernacular within a vernacular.

The organizational practices and structures differ heavily between the pro-Ukrainian /uhg/ and the pro-Russian /chug/ threads. The analysis methods reinforce the interest difference between the /uhg/ and /chug/ threads.

- /uhg/ is more scrappy, having no discernable strategy in their aesthetic or storytelling. /uhg/ is reactionary, whilst /chug/ drives the story.
 - Text analysis of OP greentext showcased the lack of organisation in /uhg/ which is a more noisy and less coherent discussion forum. /uhg/ focus more on direct war reportage and external rivalry against /chug/
- /chug/ is more organized than /uhg/. /chug/ community appear to have their story straight, offering a well-rounded arsenal of strategies to convince /pol/ of their authenticity and truthfulness.
 - Text analysis of OP greentext showcased the organizational capacities of /chug/. As a schismatic outcrop of pro-Russian segments of early /uhg/ threads, /chug/ quickly became more systematized. For example, in baking strategies and cultivation of shared intercultural iconography. /chug/ focus more internally oriented around inter-group reinforcement and performativity.
- From distinct visual methodologies, we can infer that:
 - /uhg/ OP images present a more extensive set of evidentiary war images that might be instances of original journalism
 - /chug/ focuses more on establishing its identity through logo branding.
 - The cultural sophistication of /chug/ in relation to /uhg/ in the sense that the notable amount of non-web entities on /chug/ suggest a deeper, more differentiated visual vernacular distinct from specific labels known by the Google Vision API.
 - The predominance of sexualization of warfare, portraying it in terms of the trope of female sexual dominance and subjugation, or war as threatening the innocence of the female subject, who in turn need saving from it.
- Methodological findings:
 - The shared image analysis presented a novel method for uncovering internal and inter-group rivalry and shilling, contingent community formation, grassroots reportage and a way to contextualize anomalies in the dataset.
 - Analysis of country flag metadata reveals the influence of a national and regional context in terms of user activity, thread partiality, and discursive input, opening up an as-of yet under-researched area of 4chan.

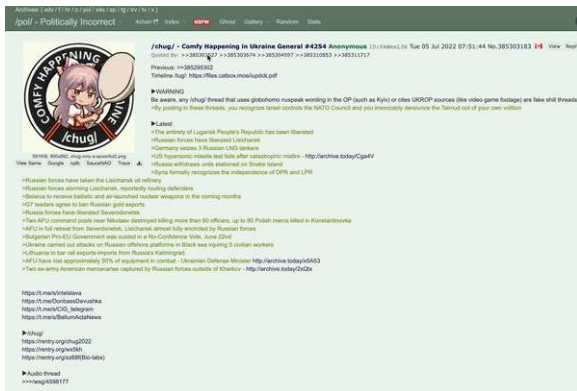
1. Introduction

In recent years there has been an increased interest in online subcultural spaces like 4chan's "Politically Incorrect"-board (/pol/) and their connections to far-right discourses, politics and ideology (e.g., Baele et al., 2021; Tuters & Hagen, 2019; Thorleifsson, 2021; Colley & Moore, 2020). By now it is common knowledge that communication and the cultural outputs that are produced and circulated on /pol/ heavily feature and creatively reappropriate particular reactionary attitudes about a range of topics such as race, gender, cultural dominance, Western democracy, etc. (Mittos et al., 2020; Ricknell, 2019; Elley 2021; Nagle, 2017). On /pol/, many of such discussions are concentrated in so-called general threads, recurring threads centered around a specific theme or a present event (Jokubauskaitė & Peeters, 2020).

Consequently, it is perhaps no surprise that up to and immediately following the Russian invasion of Ukraine on 24 February 2022, general threads also started appearing on /pol/ to cover and discuss the unfolding events of the war. What is especially interesting pertaining to this event in particular and also, to the best of our knowledge, a unique development in /pol/'s own history, is that relatively soon after the first /uhg/-threads (Ukraine Happening General) were created, an opposing set of general threads known by their vernacular tag /chug/ (Comfy Happening in Ukraine General) started appearing as a "counter space" to /uhg/ for discussing the Ukrainian war on /pol/. The result is that there is now two opposing voices on /pol/, each with their own competing narratives, imaginaries and memes about the Ukrainian war – where, broadly speaking, /uhg/ favors a pro-Ukrainian stance, and /chug/ favors a pro-Russian stance.

As a specific case, the Ukrainian war seems to provide a set of narrative templates that appears to have disrupted conventional far-right assumptions about the world, which might be one explanation for the disunion of /pol/'s discursive space: Before the war, one could generally say that far-right actors held a sympathetic view of Russia, seeing the nation as a culturally conservative, white bastion and Putin as the authoritarian strong-man that could challenge the globalized, liberal and multicultural world order of the "Globohomo" West (Michael, 2019). However, these conceptions are challenged by our initial qualitative findings that reveal a new set of competing narratives on the /uhg/-threads, centered around the image of a nationalistic Ukrainian resistance, particularly embodied through the controversial Azov Battalion, fighting against an ethnically mixed (Chechens make up part of the Russian invasion army), imperialist enemy. Furthermore, the NATOWave memes (pro-NATO images and messages superimposed on the vaporwave aesthetic, and also associated with the far-right Fashwave style) also seem to have made a curious resurgence on /pol/ during the war, again signaling a disruption of traditional friend-enemy distinctions.



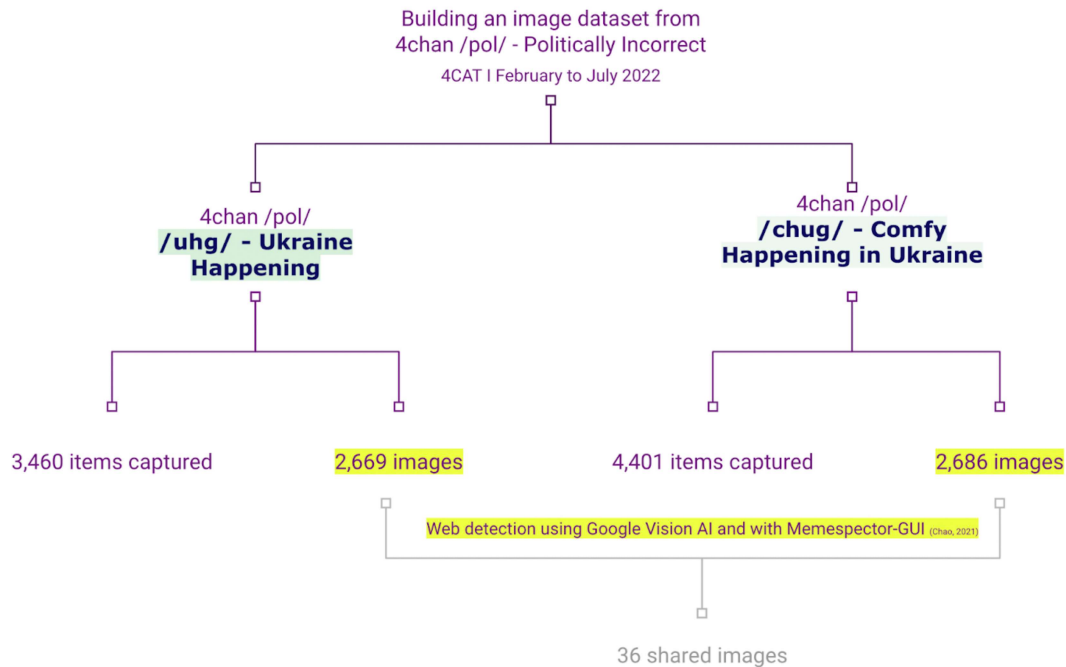


Examples of how the pro-Ukrainian /uhg/ (<https://archive.4plebs.org/pol/search/subject/%2Fuhg%2F/page/28/>) and the pro-Russian /chug/ (<https://archive.4plebs.org/pol/thread/385303183/#385303183>) look like in 4chan using archive.4plebs.org.

2. Initial Data Sets

This research project relied on two datasets from 4chan's /pol/ retrieved through the 4cat data tool. The two main datasets representing /chug/ and /uhg/ respectively were created by using the “subject contains” query with the keywords of “uhg” and “chug”. The data has been collected from the 1st of October 2021 up until the 4th of July 2022 and thus documents the entire lifecycle of both generals with their first verified posts occurring in February of 2022, two weeks before the invasion of Ukraine on February 24th of 2022.

As the number of recorded posts across both datasets proved too vast for our visual analysis tools, we filtered both the /uhg/ and /chug/ datasets to contain only the opening posts of the general threads, reducing the number of elements almost 50 fold. In the first week, we then proceeded to download all of the OP images of both /uhg/OP and /chug/OP creating our image dataset (referred to as OP images in the following text).



During the project work of the first week, we realized that OP images, specifically within the pro-Russian community of /chug/ have a streamlined and curated aesthetic to them (see Findings 5.2). In the second week we then attempted to see whether this curated aesthetic would be consistent within the images shared in the posts underneath the OP images and thus focused on the opposite end of the spectrum, filtering both the /uhg/ and /chug/ dataset for posts. As any given OP can have up to 300 posts, the amount of image data quickly began to exceed our analytical and computational resources as the dataset of over 1000000 images were too large to feed into any of the client-side image processing tools we employed. We thus decided to download the maximum sample number of 15000 images per dataset from 4CAT and refer to it as post image samples in the rest of the flow text.

As size and processing power was not a bottleneck for the textual and geographical (using 4chan's flags) analysis, these were conducted across the entire (or raw) datasets of both /uhg/ and /chug/.

3. Research Questions

The first week was an exploratory week driven by the broad research question of

RQ 1 How is 4chan /pol/ making sense of the RUS-UKR war and how does this sense-making affect its own dynamics of contingent community formation?

RQ 2 What are the visual narratives of /ugh/ and /chug/ OPs images? When considering a temporal perspective, what do they point to?

RQ 3 What are the relative (in)visibility of each community's visual vernacular across the web?

In the second week, these exploratory questions became more focused

RQ 1.1 Which images are used in the OP of both /uhg/ and /chug/?

RQ 1.2 What can shared images reveal about inter-group rivalry and is the method able to find traces of shilling?

RQ 2.1: What do flag displays tell us about the poster - do they align with particular political positions?

RQ 2.2: How important is national identity on a platform that defines itself by anonymity?

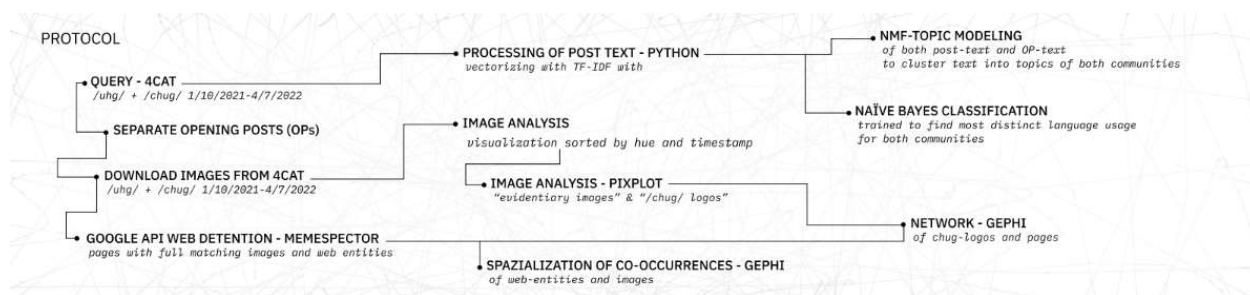
RQ 3.1: How do women become an agency to narrate the fandom construction of the Russo-Ukrainian War?

RQ 3.2: What is the symbolic meaning of sexual acts, and the lack of, in reporting different war positions of /chug/ and /uhg/?

RQ 3.3: What does the organizational practices behind the creation of the images tell us about the structures of /uhg/ and /chug/?

4. Methodology

4.1 Week 1: Text Analysis and Visual Network Analysis with AI



Textual analysis

Before any large scale analysis took place, we started out with making us aware of the subject matter by means of casually scrolling of the 4plebs archive. During these qualitative readings of the two general threads /uhg/ and /chug/ a surprising trend seemed to appear, as both generals seemed to showcase a – for 4chan – surprising consistency and similarity in the opening posts from one to the other. We started to get interested in this consistency and more specifically also in the presumed lack thereof that we presumed to be there. The process of creating a general thread (also known as baking) is practically open to anyone who wishes to participate. We thus presumed that there are probable outliers to the consistency – failed baking attempts or ruptures in the collective sensemaking. We thus set out to find a method to detect these ruptures, by comparing the similarity between green texts, assuming that, if the similarity from one post to the next is relatively low, that we are seeing a contestation, a rupture, an inconsistency, that we would then be able to qualitatively analyze.

To achieve this, we split the text data into 4 smaller datasets consisting of text from OPs and non-OPs from each thread. For the similarity analysis, greentexts were extracted from OPs from both threads using the ">" sign, which indicates greentext on 4chan as an identifier, and a similarity score was computed using the [SequenceMatcher](#) class from the difflib library (difflib, n.d.), comparing the textual similarity between the greentext template of each OP compared to its predecessor. For both classification and topic model analysis, text data was preprocessed using standard methods of lowercasing, removing punctuation and special characters as well as employing a stopwords list. Due to time constraints and limits on computational resources, lemmatization was not performed. Afterwards, each dataset was vectorized using TF-IDF scores, setting the maximum document frequency parameter at 80% and the minimum document frequency to 30 documents. For training the naïve Bayes model, a test/train size ratio of 25/75 was used. By counting the number of times each word occurred in all OPs/posts divided by the number of OPs/posts from each category (i.e., /chug/ and /uhg/), and then dividing the number of times a word appears in one category over the other, a /chug/ vs. /uhg/ ratio was calculated for each

word, producing two sorted lists of words most significant for predicting whether a(n) OP/post belongs to one of the other general thread, according to the naïve Bayes algorithm. In order to avoid dividing by zero in the instances where a word only occurs in one of the categories, a pseudocount of 1 was added to all word counts, similar to the Laplace Smoothing technique normally used to regularize the naïve Bayes algorithm for avoiding probability estimates of zero when a feature value doesn't occur with a given category. For topic model analysis non-negative matrix factorization models were constructed on each of the 4 datasets, using a 50-step iterative process to produce 15 unique topics, of which the top 20 words representative of each topic and their TF-IDF weights were plotted for interpretative analysis.

Image analysis

Visualising OPs images overtime with ImageJ

Using 4CAT, we download the OPs images from /ugh/ and /chug/, including image file name, imageID, thread_id and timestamp. We then manually created spreadsheets to feed ImagePlot software and generate two image montages according to month and hue. After that, we read the visual content to understand the type of images appearing over time and interpret their related symbols and visualities accordingly. This technique helped us make sense of the visual vernacular and let us make guesses into the image production and the different visual typologies created in both threads in a temporal perspective. Allowing us to see how the narratives developed over time.

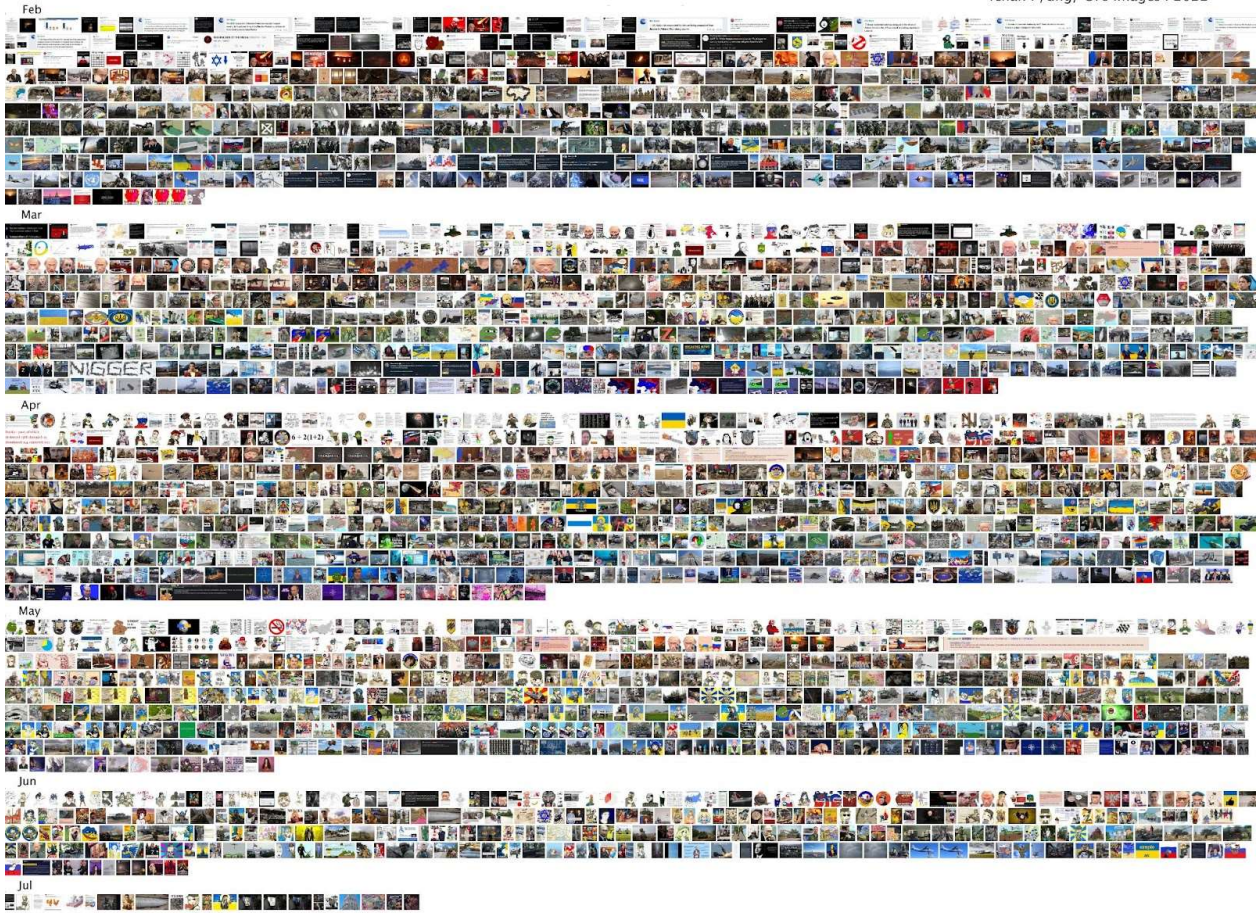


Image file:

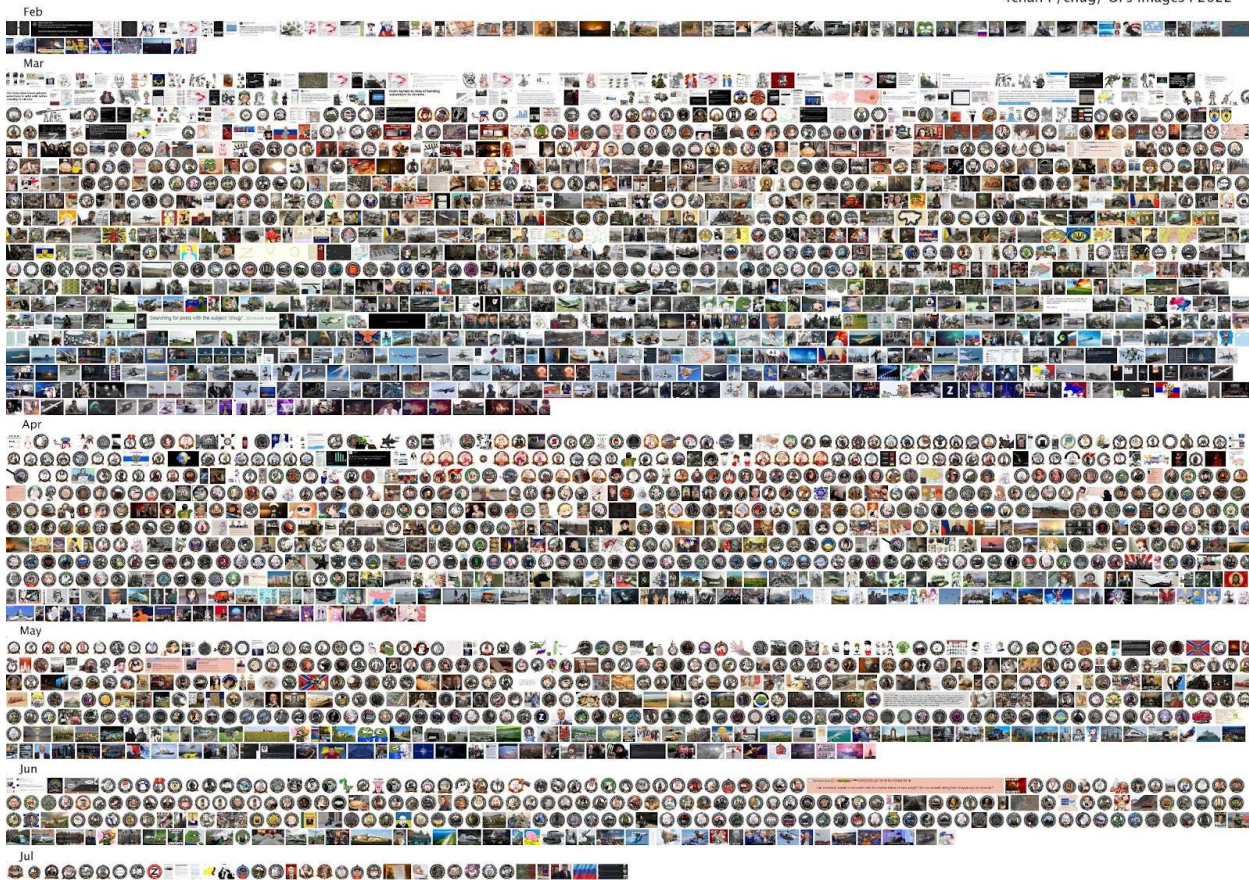


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Visual Network Analysis with Web Entities

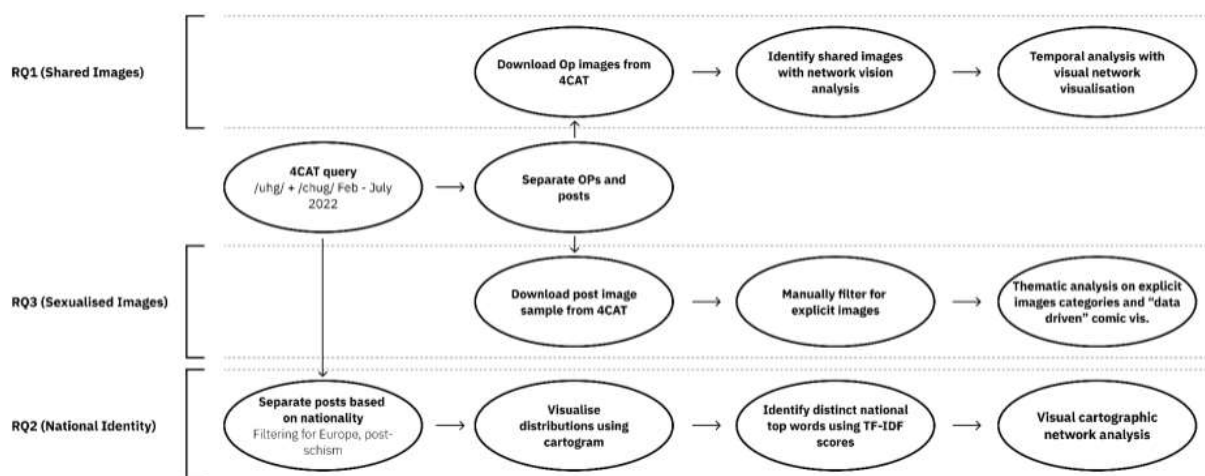
Web entities analysis offers a contextual perspective to an image collection by informing offline and online Internet content items associated with images. Entities organize search results and they can be, for example, a thing, a person, a place and an event. Furthermore, web entities should provide authoritative and trustworthy image tagging because they respond to Google's ranking system and Knowledge Graph (Omena et al., 2021). With this knowledge in advance, we repurposed Google Vision web entities detection to inquire about the relative (in)visibility of each community's visual vernacular across the web. Using 4CAT, we downloaded all the OP (Original Post) images from the /chug/ and /uhg/ datasets. We then ran each image dataset through the Google Vision API's web entity detection, using Memespector-GUI (Chao, 2021). This gave us a list of detected "web entities" —web-based descriptions of the image content—for each image in the dataset. To visualize the dataset, we followed Omena et al. (2021) in building a bipartite image/web entity network. We first processed the /chug/ and /uhg/ image and entity datasets separately using [Table2Net](#), with one type of node representing the image and the other representing the specific entity. We then visualized the network output for each using Gephi. For

visual clarity, we removed all entities that were only referenced once, and the size of entity nodes were proportional to how many times that entity appeared. Each graph was then spatialised using the [ForceAtlas2](#) algorithm (Jacomy et al., 2014). We then conducted exploratory visual analysis on each of the /uhg/ and /chug/ networks, identifying two general clusters of 'recognised web entities' and 'non-web entities'. In the 'recognised' clusters, we see instances where the Google Vision API has successfully identified specific entities in the image, while in the 'non-web entities' cluster we see instances where Google Vision has not seen the specific entities in the image, and instead reverted to only identifying base characteristics (and thus returning generic results).

4.2 Week 2: Visual Media Analysis

LET'S PLAY WAR

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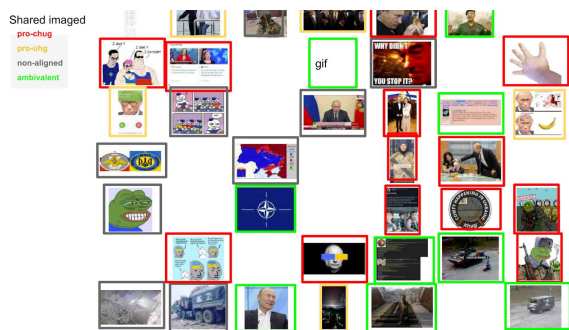
15th July 2022

Shared Images

As previously mentioned, for the shared images, we utilized 4CAT (Peeters & Hagen, 2021) to download scraped OP images of /chug/ and /uhg/. We conducted shared image detection of the OP images by building networks of sites of image circulation with Google Vision API, identifying 36 images with an identical filename. To test the validity of this technique, we verified the images within our image dataset (spreadsheet) and on 4chan (using archive.4plebs.org). Moreover, we randomly downloaded a couple of images from 4chan to understand its URL syntax. The [OfflineImage Query and Extraction Tool](#) was used to create a folder with these shared images, and a navigational procedure analysis was carried out within an interdisciplinary team consisting of issue experts, digital methods researchers and communication designers via a range of tools and resources such as [ImageSorter](#), [archive.4plebs.org](#), spreadsheet (containing the image name file, thread_id and timestamp) and Google slides (for collective annotation). As a result of this initial descriptive analysis, four main categories were inductively created during manual coding of the images according to the content of their respective threads: (1) pro-uhg, (2) pro-chug, (3) non-aligned & (4) ambivalent. Specific cases pertaining to these categories, such as 'shill', 'fake threads', '/tug/' and 'reactions' to the different posts were considered and sub-labeled when encountered.

For the initial exploratory analysis, we turned to network visualization with nodes as images and the /chug/ and /uhg/ 4chan posts positioned by timeline. For this four main categories were inductively created during manual coding of the images according to the content of their respective threads: (1) pro-uhg, (2) pro-chug, (3) non-aligned & (4) ambivalent. Specific cases pertaining to these categories, such as 'shill', 'fake threads', '/tug/' and

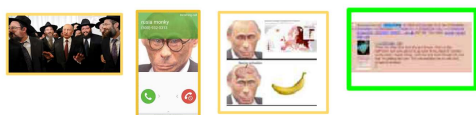
'reactions' to the different posts were considered and sub-labelled when encountered. A collaboral annotation of the devised slides and networks informed the final visualization that formed the basis of our analytical conclusions.



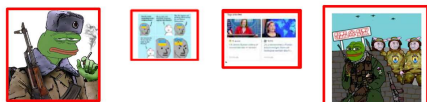
Shill or fake thread

- pro-chug
- pro-uhg
- non-aligned
- ambivalent

pro-uhg



pro-chug



In a second moment, we turned to network visualization with nodes as images and the /chug/ and /uhg/ 4chan pols positioned by timeline. We were then able to visualise the images over time and according to the manual coding. A collaboral annotation of the devised slides and networks informed the final visualization that formed the basis of our analytical conclusions.

This methodology of approaching shared images affords researchers an entryway into internal and inter-group 4chan rivalry and 'shilling', contingent community formation, grassroots reportage and a way to contextualize and show 'anomalies' in datasets, such as /tug/ and /wu/ in this dataset.

Sexualised Images

The analysis of the post image samples of both /uhg/ and /chug/ became a predominantly qualitative endeavor. Neither [Image Sorter](#), [PicArrange](#) (Barthel et al., 2019; Jung et al., 2022) nor [PixPlot](#) could sufficiently cluster the vast variety of image data in a way that we were content with. From the first week we already knew that we wanted to focus on the absence of men in 4chan's war reporting. In the vast dataset of OP images and post image samples, only rarely were images of men featured. A large part of the war depictions instead were of anime girls dressed in traditionally male uniforms, or portrait as anthropomorphization of military hardware such as long range ballistic missiles or, in the most famous case, the Buhanka all terrain vehicle (see Findings 5.7).

To focus on the curious sexualisation and the absence of men by looking at sexually explicit content in the post image samples. This was only possible through manually coding both 15000 image data sets, leaving us with around [3000] images with sexually explicit content for /chug/ and [2000] for /uhg/. As the variety in the explicit images was quite large in terms of composition, content, color and pose, that it was again impossible to use any of the aforementioned tools to any avail to cluster the large quantity of images. Even in cases where some of the recurring characters made appearances, the tools failed to recognize them. Instead, we focused on a qualitative reading of these images. We first created two gifs, one of /uhg/ and one of /chug/, letting them run at the same

frequency in parallel. As this endless loop of images flickered across the screen, we could make out significant differences in /uhg/ and /chug/, specifically in their image vernacular. Despite both using “anime girls” and both having an absence of men, their use of anime girls and their absence of men is quite different.

We focused on some recurring characters of both sides. “Main characters”, which we then decided to portrair in the form of a data driven comic strip – mimicking the form of the visualization with the native style of the explicit images. The size of the comic strip boxes depends on the amount of times these characters make an appearance in the respective general thread.

National Identity

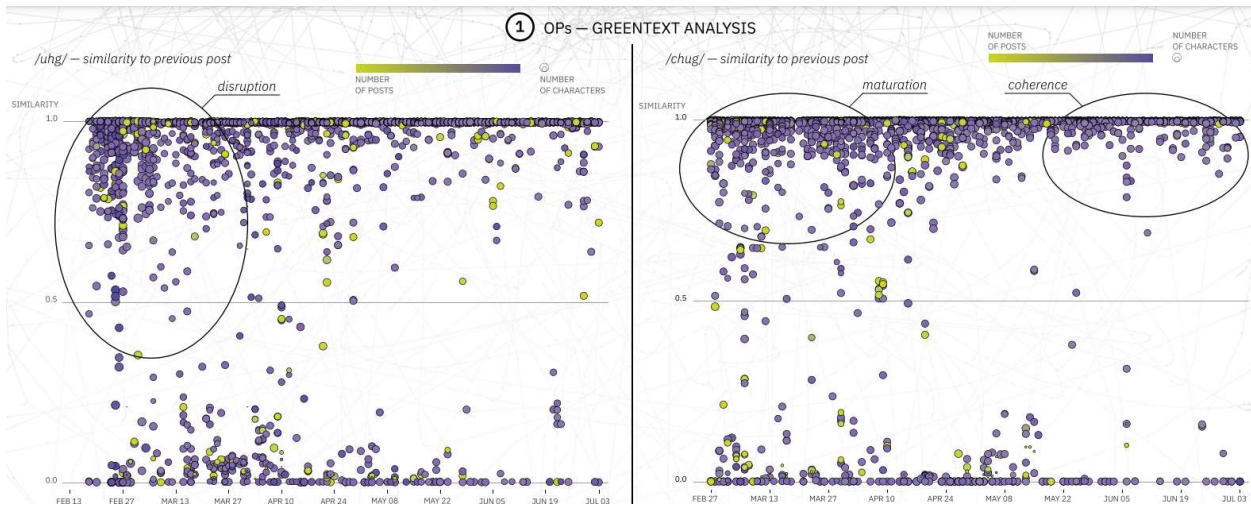


Examples of country flags represented next to each user post.

For analysis of the geographical variation of /ugh/ and /chug/ users, the initial datasets were used, filtering out OPs as well as only counting posts after the general thread schism between /uhg/ and /chug/. Posts were then simply divided and arranged based on country flag-metadata, choosing only to focus on European countries. For text analysis, preprocessing was performed identical to the process in week 1 (lowercasing, removing punctuation and special characters as well as employing a stopwords list), and TF-IDF scores were calculated according to the word frequency in each country dataset (understood as a single document), and the inverse document frequency of words across all country datasets (understood as the corpus of documents). Each country's top 20 words with the highest TF-IDF score were then visualized as nodes in a network graph, where edges between nodes show when countries share the same TF-IDF-inferred top word.

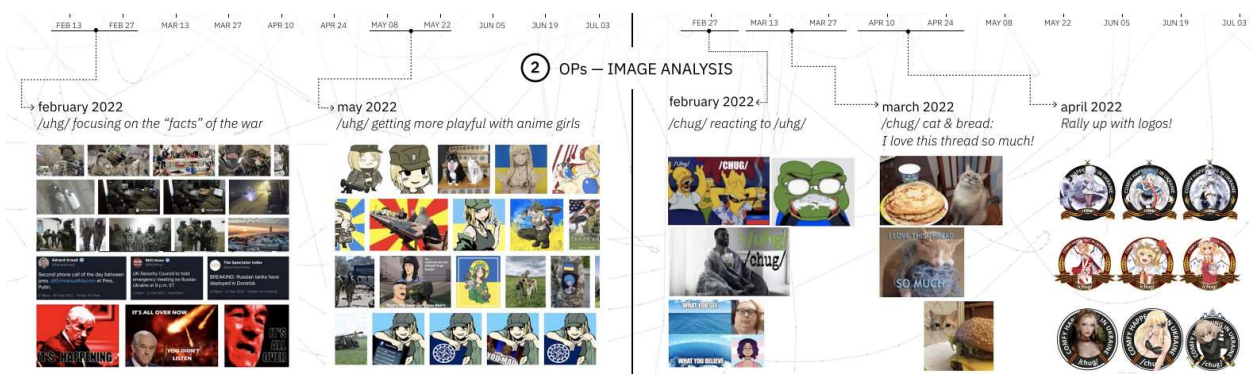
5. Findings

5.1 Text Analysis of the greentext from /ugh/ and /chug/ [week 1]



Having performed an analysis of the textual similarity between the greentext from each OP compared to the greentext of the preceding OP, the analysis provides a sense of the evolution of the template format typical of /pol/ general threads. We see how early /ugh/ threads (before what is colloquially called “the great schism” during which the previously singular Ukraine Happening General split into the two competing generals on the 27th of February) were marked by chaotic negotiations of the informational outset of community discussion. This might be explained, not just by the endogenous compositional freedom of a still nascent communal identity, but also by the context of the intensification of events following the Russian invasion on the 24th, which would suggest a larger repertoire of continuously evolving events to disseminate and digest on /ugh/ in the earlier stages of the war. After the disruption on the 27th of February caused by the creation of /chug/ (clearly visible in the image in the form of major discontinuity in /ugh/ thread similarity during that period time), /ugh/ OPs continued to struggle with inconsistencies in their reporting behavior (seen in the cluster of threads with very low similarity scores around March and early April), before eventually reaching a more or less stable equilibrium in the later period with fewer directly contrasting OP greentext pieces. In contrast, /chug/ had from the outset a much more stable reporting behavior, with much fewer highly dissimilar OPs standing out, echoing the threads’ generally more organized structure, as demonstrated in some of the other analyses. Instead, the cluster of high similarity /chug/ OPs, but which were also not completely identical to their precursor, suggests a much more controlled negotiation around baking strategy and general thread progression in the process of the community’s maturation, eventually culminating into an almost near total concurrence by its bakers at the end.

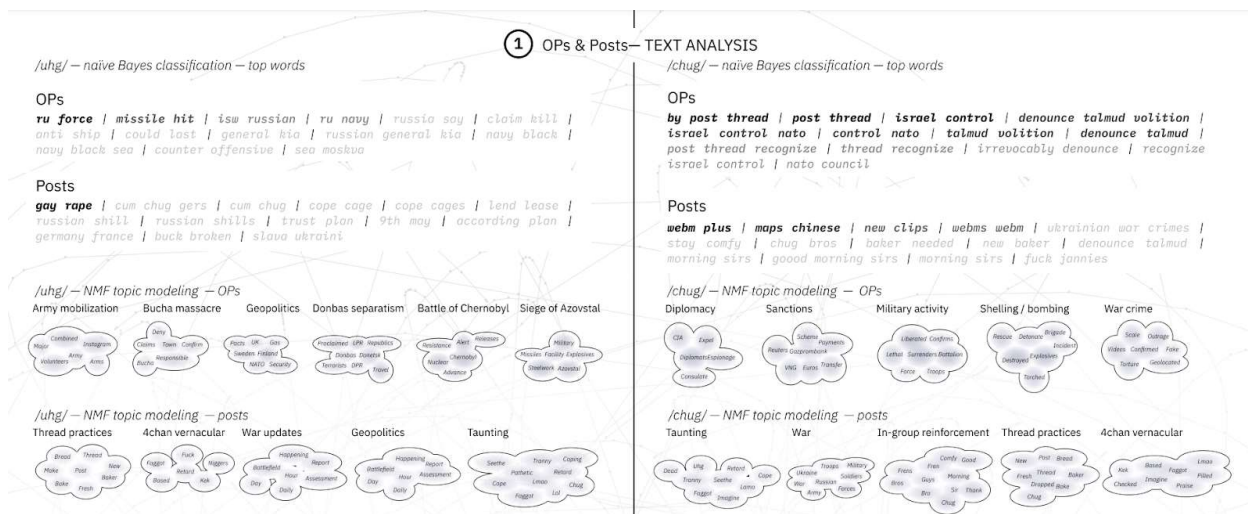
5.2 /ugh/ and /chug/ OPs Image Analysis Overtime [week 1]



In February of 2022, /uhg/ OPs images focused more on the fact that the war had happened. Using many warzone pictures, screenshots of Twitter, and affect-loaded memes to stress visually: "IT's HAPPENING". After splitting /chug/ from /uhg/, we see images referring to shooting the chug, the blue-yellow circle symbol of /uhg/, and the later developed shield-shape symbol. The attempt to react to /chug/ organization failed, as /ugh/ users generally paid minimal effort to brand the war or develop a sense of community construction. From May 2022, the politically incorrect tone of /ugh/ became less about fact but more dominated by animate characters, especially girls and Marishka. This latter has been used by ugh as a symbol of Ukraine since April.

As for the images belonging to /chug/ OPs, we visually detect three patterns. First, /chug/ users react to /uhg/ posts and express they like the channel; from March 2022, we see images depicting how much the users "love" the threads in this channel. Second, from March to April, images show Russian military power, notably missiles. Finally, the organized branding characteristic of /chug/ through logos is present from February to July. However, the production of these logos has its peak in April.

5.3 Textual Analysis of /ugh/ and /chug/ Threads [week 1]

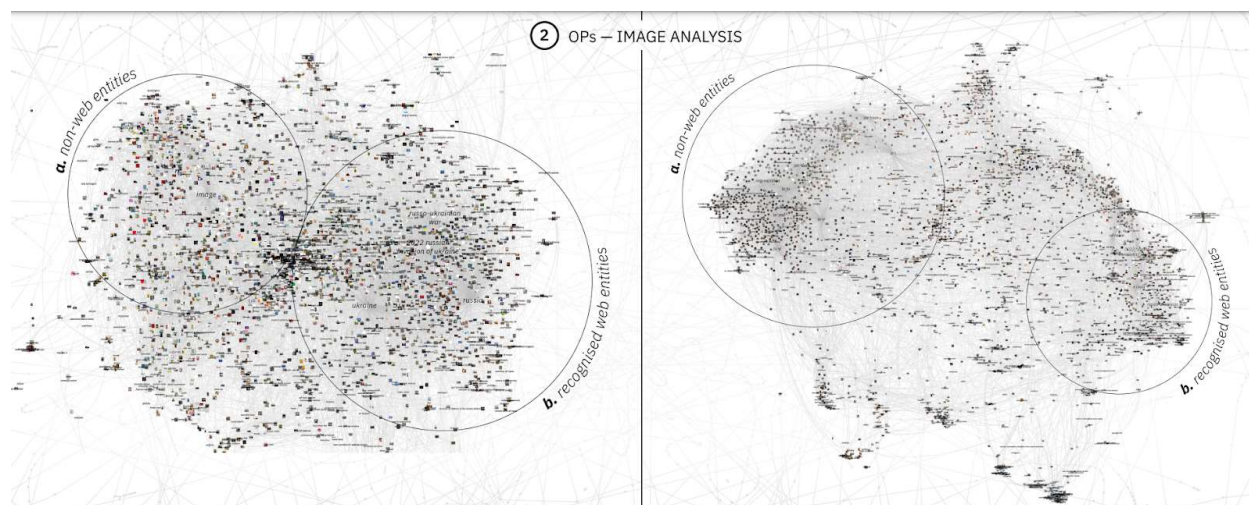


Analysis of the textual content within the two general threads consisted first of building and training Naïve Bayes classification models to predict the categories (i.e. /chug/ or /ugh/ threads) that text from OPs and posts belong to, and through that finding out what words are most predictive of either category, and secondly creating a non-negative matrix factorization topic model to discover the underlying relationships between text in OPs and posts from each thread in order to infer what topics are being discussed in each thread.

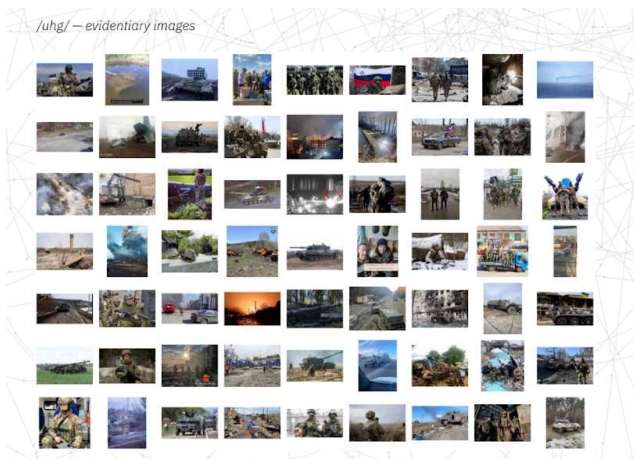
The topmost predictive bi- and trigrams from the classification models revealed that /ugh/ OPs focuses on reporting the unfolding of the war as a discursive starting point, such as a broadcasting missile hits, counter offensives, or when a general is reported as killed in action. Results of the topic model echo this finding in the sense that there are clear topics from /ugh/ OPs relating to concrete events of the war, such as the Bucha massacre, the Battle of Chernobyl and the Siege of Azovstal, as well as surrounding situational factors in the war such as the mobilization armies, the underlying conflict of Donbas separatism and geopolitics more generally. In contrast, from the classification analysis /chug/ OPs seem much more focused on internal organization of their general threads by replicating certain performative functions, such as that users posting in /chug/ thread should denounce the Talmud and also recognize Israel's control of NATO. Topic modelling likewise indicate that /chug/ OP text revolve less around specific actions in the war, but more on the general activities from the Russian point of view, such as troop movements, the bombardment of Ukrainian territory, the accusation of war crimes (on both sides) and sanctions imposed by the west.

On the level of user posts, text analysis also revealed marked differences in the posting behavior in each general thread. Users on /uhg/ had a much more outwardly directed discourse, focusing on taunting and ridiculing the “other” side through derisions such as cum chuggers (directed at /chug/), cope cages (referring to the purported ineffectiveness of cage-style protective armor on Russian tanks meant to counter Ukrainian missiles), Russian skills, and calls for sexual violence with the words gay rape and buck broken (referring to the Buck Breaking-meme about the strategic sexual abuse of male black slaves in order to “break” them into subjugation and compliance. While historically dubious, the term and memetic adaption became popularized after the 2021 documentary by Tariq Nasheed of the same name). Similar centrifugal aggression is found in from the topic model analysis in a cluster of related words like “seethe”, “cope”, “pathetic”, “retard”, “faggot”. In contrast, findings from the classification analysis suggests that users on /chug/ are much more centripetally organized around internal communal unity, calling each other “chug bros”, reminding each other to “stay comfy”, and greeting each other with “good morning sirs” (referring to the meme of the same name). While there are overlaps of discursive content from both threads revealed by the topic model, sharing similar topics about specific 4chan vernacular and the maintenance of threads, /chug/ users also appear much more invested in in-group reinforcement, inferred by the cluster of words like “frens”, “guys”, “bros”, “chug”, “comfy”, etc.

5.5 Analysing OPs images with the computer vision network approach [week 1]



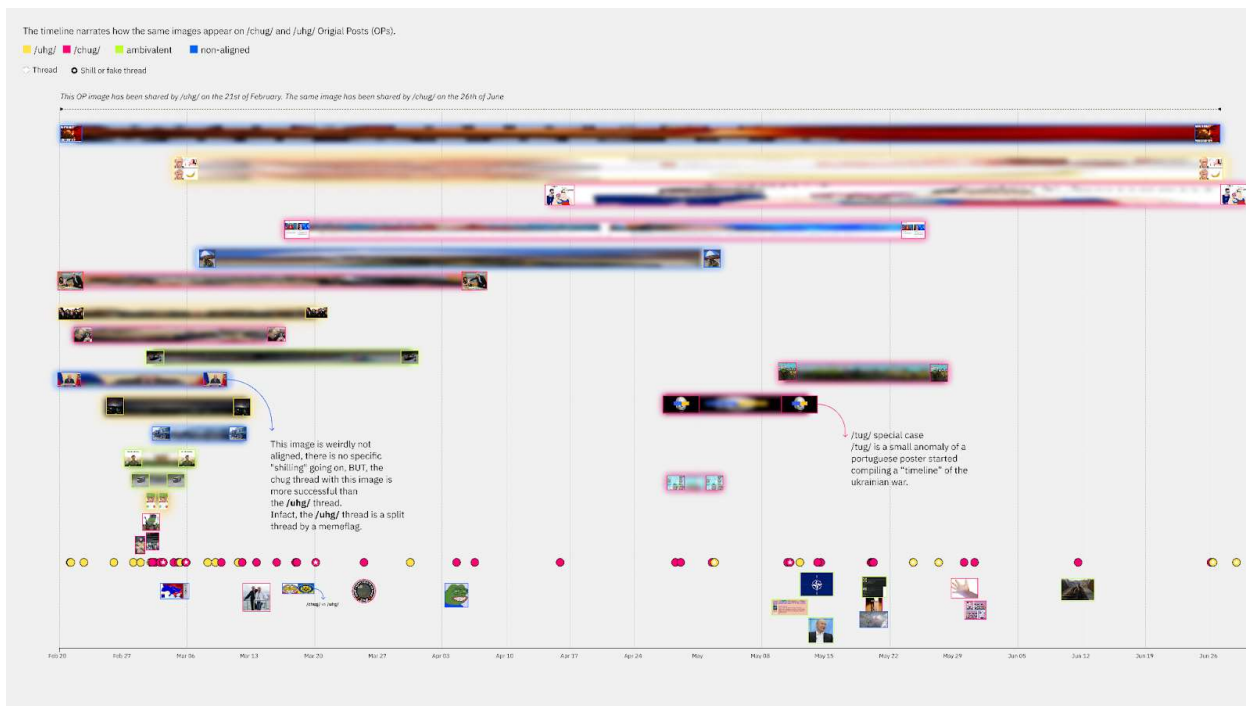
These bipartite networks represent the relative (in)visibility of each community's visual vernacular to the Google Vision API, and by proxy the ‘outside web’. Text-based nodes represent a web entity detected by the Google Vision API, with their size proportional to how many times the entity was detected in all images. An edge between a web entity and an image is indicative of the detection of said entity in said image. Examining the /uhg/ and /chug/ networks closely, we see two large clusters emerge - ‘recognised web entities’ and ‘non-web entities’. In the ‘recognised’ clusters, we see instances where the Google Vision API has successfully identified specific entities in the image, such as ‘missile’, ‘Azov regiment’ or ‘Vladimir Putin’. The entities identified in each ‘recognised’ cluster appear to be relatively similar across /uhg/ and /chug/, initially suggesting a relatively similar visual vernacular between communities. Differences emerge however when we examine the ‘non-web entities’ clusters. In these clusters we see instances where Google Vision has not seen the specific entities in the image, and instead reverted to only identifying base characteristics such as ‘text’, ‘logo’, or ‘image’. Rather than seeing this non-specific labeling as a ‘failure’ of the vision API, we should instead see it as a feature which we can repurpose to indicate the relative visibility of images to the outside web. In both communities we see that there are a significant number of ‘invisible’ images, however this is far more pronounced in /chug/. In this comparative invisibility we see /chug/ representing a vernacular within a vernacular, whose visual vocabulary emerges through differentiation from an already sparsely visible subculture in /ugh/.



Here we see what stands out in the OP image sets of /uhg/ and /chug/ respectively, and can therefore be seen as defining characteristics based on preliminary analysis of the two image sets. /uhg/ presents a large set of what can be described as evidentiary images. In the war reportage that we see on the thread, the use of the evidentiary images lends credibility to the claims being made in the OP text about the developments in the war. These images further establish the journalistic register of the conversation on the /uhg/ thread. Furthermore, many of these images were not found to exist anywhere else on the web, as per the results shown by the Google Vision API. This is a curious observation and while there is no empirical explanation, it can lead to significant hypotheses. On the one hand, these images may have been indexed from the various telegram channels that form the backend conversation on these threads but even then, these evidentiary images may suggest practices/instances of original journalism and documentation of the war by those on the ground, thus broadening our understanding of the ways in which the ongoing war is being experienced and conveyed on 4chan. For the /chug/ OP images, the defining characteristics are the logos, which quite early after the general's inception, overtake OP images almost entirely. These logos all follow the same form — concentric circles where the outer band reads “COMFY HAPPENING IN UKRAINE” and “/chug/” while the inner circle uses various visuals — both from the war such as putin memes or images of military hardware and pre-existing 4chan iconography such as pepe and anime girls, while often intertwining these two categories of visual imagery. These logos constitute a novel form of memes which use the same basis for a variety of iterations to be formed. This is in some way similar to the set of google doodles or the various iterations of the MTV logo. In this way we see /chug/ threads focussing on branding as well as consolidating the brand identity to create a unique and visually striking presence on /pol/ which is immediately differentiable from its “other” i.e. /uhg/. This would be consistent with expectations as /chug/ splintered away from /uhg/ in the “great schism” and the splinter group’s need to establish itself separately from the parent group.



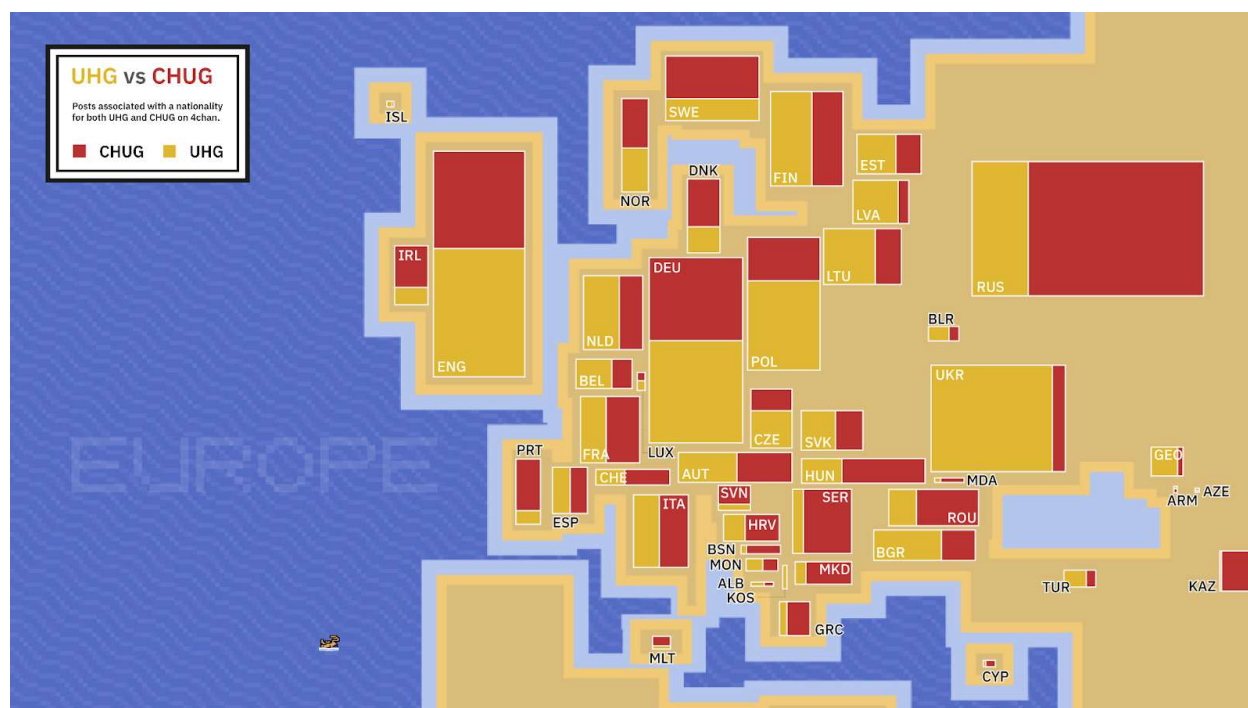
5.5 OPs Shared Images Analysis [week 2]



The findings of the shared image analysis were more methodological than empirical. Although, the shared image revealed a part of the data set, we did not know existed – meta generals, that did refer to both /uhg/ and /chug/ in the subject, but were technically neither, or both – due to its relatively small size of 36 images, we did not make large empirical leaps. What it did reveal, apart from the existence of meta generals (and the quantitative relevance of reading through the communities own meta sensemaking), the method of shared image analysis revealed a surefire way to find “shilling” – the practice of taking over the other “teams” thread to subvertly make fun of it by means of e.g. using a pro-Russian meme with a perfectly normal pro-Ukrainian post.

The shared image analysis also coincidentally showed the development of shilling over time and portrayed part of the “great schism” in its visualization, where a large part of the shared images were posted shortly after or around February 27th. What the method did not account for is the various iterations of similar images such as the very prevalent monkey Putin meme, which is conceptually the same, but technically a little bit different from post to post. In future iterations of this method, we should account for not only shared images but also similar images.

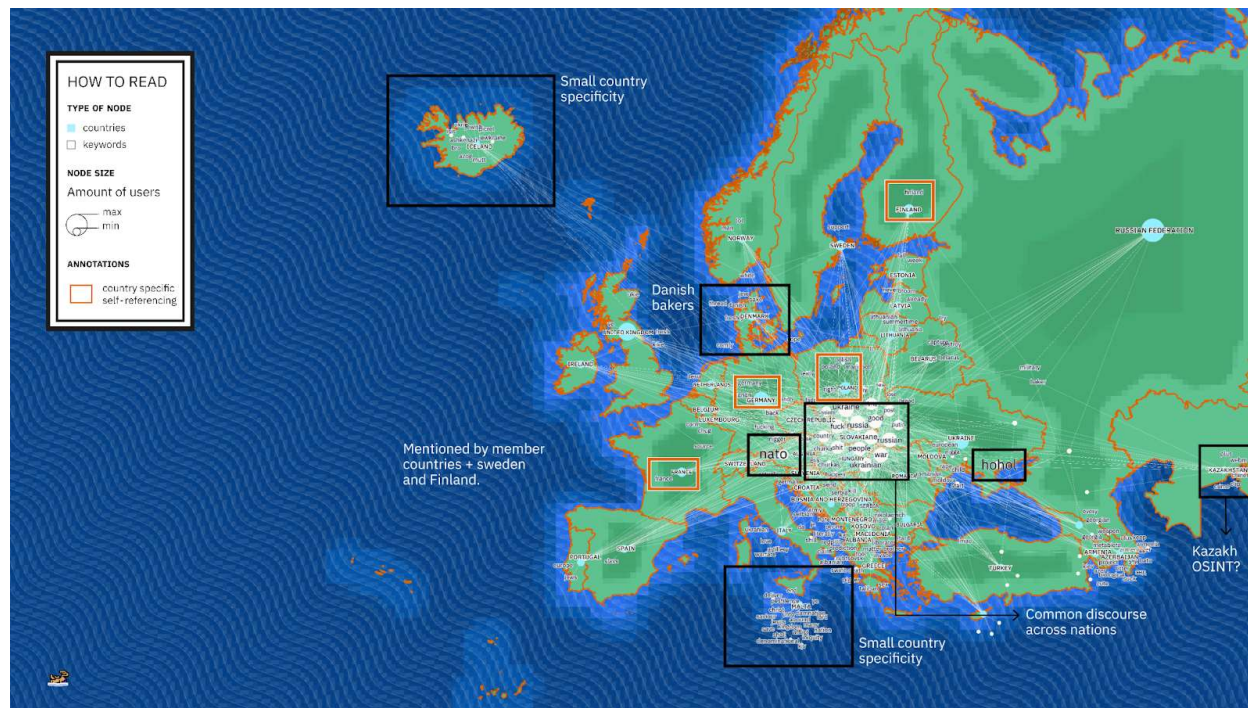
5.6 Flag analysis for detecting the national differences in /uhg/ and /chug/ user’s activity [week 2]



Analysis of flag data reveal there are distinct national differences in users' activity and thread preference and their engagement with either a pro-Russian or pro-Ukrainian discourse. First off, compared to regular user traffic (see Hagen, 2021), nationality and geography seem to play a role in the type of users that engage in the discussion of the Ukrainian war. Most immediately, there is extensive traffic coming out of Ukraine itself, despite it being a country normally without a lot of 4chan users. One also sees increased activity from smaller countries like Estonia, Latvia and Lithuania, which are also geographically close and assumedly therefore also more impacted by the war itself. In the same vein, while Poland and France normally enjoy about the same level of posting activity, during the discussion about the war on /ugh/ and /chug/ Poland, a country perhaps more impacted than France by the outbreak of the war, due to the heavy influx of Ukrainian refugees into the country among other factors, also sees more than double the amount of posting activity than France. In contrast, countries that are situated geographically far away from the war like Ireland, Portugal and Spain, and which at other times have a user base equal to or more active than some Eastern European, are also curiously less active than normal.

Next, looking into thread preference more closely, perhaps rather expectedly Russian 4chan users heavily favor /chug/ as their preferred channel for discussing the war, whereas Ukrainians are almost exclusively found on /ugh/, suggesting that users from both countries overall align themselves with their nations' default position. Such coherence between users' thread preference and their nations' geopolitical interests can also be seen in the cases of the Baltic countries and Finland, who are assumed to be indirectly jeopardized by Russian warmongering due to their proximity, and whose user base at the same time also favor /ugh/'s pro-Ukrainian (or perhaps more precisely its anti-Russian) discourse. Likewise, countries such as Poland, who for long have held a strong negative attitude towards Russia, not least due to historical grievance before and during WW2, as well as due to more recent political tensions between the two countries after the fall of communism, and Georgia, who have had no diplomatic relations with Russia since the 2008 Russo-Georgian war and Russia's support of the separatist regions of Abkhazia and South Ossetia, also have a user base strongly favoring /ugh/. In contrast, countries such as Serbia, a historical ally of Russia, Hungary, who up until the war had rejected sanctions on Russia, and Kazakhstan, who have also enjoyed good diplomatic and trade relations with Russia since independence, have their users favoring /chug/ instead as a pro-Russian space for discussing the war. However, there are also quite stark preferences for /chug/, or at least a more equal dispersal between the two threads by users from countries that one would expect to be decidedly pro-Ukrainian and therefore logically prioritize /ugh/, such as Germany, France, the UK, Italy, the Scandinavian countries etc. This indicates that while there might be

national differences in terms of users' thread preference, these do not necessarily align with any particular national identity or sympathy, and might even work contrary to such country-specific geopolitical interests, conforming to the reactionism that one would expect to find normally on /pol/. At the very least, one should be mindful of not to essentialize users' thread preference with national interests, but still recognize that national contexts play a role in user behavior in one way or another.



The image shows the results of text analysis done on the flag data. Using TF-IDF scores of the top 20 words from user posts from each country, one can compare each country's most distinct keywords with each other in order to see what terms are most important across and between nationalities. Slightly contrary to the previous analysis that showed distinct differences in terms of thread preference across nationalities, text analysis suggests a general concurrence of discourse relating to the war in Ukraine among nationalities, seen in the large cluster of words shared by almost all countries (e.g. "war", "Ukrainian", "Russia", "Putin", etc.). Generally, there are few keywords specific to only a single country, and smaller countries such as Iceland and Malta make up the majority of such instances, suggesting that these outliers are due to the smaller datasets coming out of these countries. Beyond these outliers, for some user nationalities, their single-country specific keywords are in fact cases of them self-referencing their own country (so for example, French users have "France" as a top keyword, Germans have "Germany", Finns have "Finland" and Poles have "Poland" and "Polish"). This suggests that while nations, beyond the immediate actors in the Ukrainian war itself (i.e. Russian and Ukraine), are not part of the general discourse, users from specific nationalities are nevertheless consciously signifying their belonging to a national community and importing that nationalized context into the wider discussion. This phenomena is also evident on a more regionalized basis, for example in the case of the keyword "NATO" that is interestingly only being shared by users from NATO members countries, as well as Sweden and Finland (whom have both recently applied for membership) and Serbia (being the only European country to have been in direct military combat with NATO forces during the Yugoslav wars). Likewise, "hohol", a derogatory term referring to Ukrainians, are also only used by users from countries previously described as decidedly pro-Russian (such as Serbia and Kazakhstan and of course Russia itself). All in all, these trends suggest that national identities and contexts have a direct influence on the topics that users choose to articulate and interject in the wider discursive space of 4chan, a space normally assumed to be conditioned more by anonymity and therefore stripped of such markers of identity.

5.7 Sexualised War Reporting

5.7.1 Pipelines of Canonical Content Creation

HOW TO READ

Timeline showing the evolution of the narrative in /chug/.

SIZE

The size of each square corresponds to the amount of pictures retrieved for each category.

TOTAL: 146 IMAGES

CHUG

The following images could, and probably will, hurt your sensibility sexual explicit content will be shown, without censorship for the sake of research.

ANTHROPOMORPHISATION (THE BIRTH OF MARICHA CHAN)

The anthropomorphisation of military hardware begins. Starting from the meme of the Belarusian vehicle creating the leader, adolescent reports of Ukrainian defense efforts.

PIPELINE OF CANONICAL CREATION

NARRATIVE CONTROL THROUGH EXTERNAL PLATFORMS

DENAZIFICATION

External platform working as an organizational tool to construct canonical narratives.

LOGOS AS EXPLICIT BRANDING

PENING

/chug/

Explicit images with coherent branding create a collective identity of the /chug/ community.

The culture of collectively commissioning art as a way to create and protect your visual vernacular and canonical story telling.

DENAZIFICATION

uhanochka_2

365 ❤️ 115 🙌 54 🗳️ 16 😊 13 🔥 12

FEMDOM AS A REPRESENTATION OF WAR

The demilitarized are anthropomorphized weaponry and nature. They often look down, guarding and destroying their nation, and battlefields, with highly sexualized looks. Indicating sexual humiliation of the oppressed.

INNOCENCE AS A REPRESENTATION OF WAR

The innocents are seen both on /chug/ and /uhg/. They could appear either enemies like the demilitarized when representing a collective identity, i.e., the nation, and human size when generated a fantasia of individual women.

Similarly to the OP logos, we see a difference between the way /uhg/ and /chug/ brand themselves. On the pro-Russian /chug/, images of the war continue to be standardized, both in terms of the artistic style, and their means of distribution. During our close reading of the images and backwards tracing of the OPs associated with the posts, we made out several direct pipelines of canonical content creation, where the community of /chug/ collectively commission and pay artists to create a canonical anime universe with semi-complex relationships between the protagonists and antagonists akin of fanfiction. We also found Telegram channels that act as a twisted digital comic book, taking the interpretational authority over how the Russian invasion of Ukraine ought to be understood. These channels draw on the same anime universe as the collectively commissioned art.

/chug/'s content is high quality in terms of both skill required to make them and in their aesthetics, diverging from the low quality artistry traditionally seen in memes. The considerable fidelity in these fanfiction memes makes it harder for outsiders or opposers of the /chug/ community to engage with, vandalize or appropriate them. Giving /chug/'s fanfiction a relative stability and agency over their own story.

Comparing this with /uhg/, we can see much less, if any (we did not find any, but there is a chance that we have missed these processes) of these pipelines of content creation. /uhg/ appears to be more barebones, as the aesthetic of their fanfiction memes and characters is of lesser fidelity. In the close reading we saw multiple cases of vandalism of /uhg/'s fanfiction universe (presumably by /chug/ers), in which Marichka (/uhg/'s clear protagonist) is portrait as, in the mildest cases, being secretly in love with Russia, being held hostage by nazis, and in the worst cases, being exposed to forceful sexual conduct by Russian chads (see Figure below).

HOW TO READ

Treemap showing the evolution of the narrative in /chug/.

SIZE

The size of each square corresponds to the amount of pictures retrieved for each category.

TOTAL: 31 IMAGES



The data driven coming shows partially how prevalent the aspect of Marichka losing control over her own narrative is. The size of the various image categories corresponds with the quantum of images that were found in them. Marichka goes from being an obvious pro-Ukrainian mascot of the war to what can be described as a contested territory thus reflecting the dynamics of the ongoing war situation. There is a considerable proliferation of images that show the subjugation of Marichka and it is often indicated that she secretly enjoys being subjugated. The pro-Ukrainian mascot soon devolves into an empty signifier which can be endlessly repurposed by /chug/ trolls and anyone else to carry meaning that was originally unintended. These leads to significant contradictions which by themselves may not make sense immediately but are valid avenues to understand the evolution of Marichka into a contested territory just like the warzones themselves. Nowhere is this contradiction and struggle for ownership as evident as in the case of Marichka being represented as a "nazi-jew".

5.7.2 Female Domination in place of male domination.

Another startling realization of the sexual image analysis is, what we alluded to earlier, the absence of men and male domination, predominately in /chug/. Due to the abundance of so many female protagonists in both /uhg/ and /chug/ and due to the history of the depiction of male domination in times of war we would have expected to see portrayals of female subjugation. Instead we predominantly see acts of female domination, specifically in /chug/'s portrayal of the war, where Russian anthropomorphised military vehicles in the form of anime girls – such as Buhanka Chan who is derived from a tiny van that went viral in the early images of the war, or Kalibr Chan, derived from the Kalibr (SS-N-30A) ballistic missile, that was seen eerily flying through the air in the cell phone videos released in the early stages of the invasion – playfully and innocently dominate Ukraine. The portrayal of Russia's invasion of Ukraine through the metaphor of female domination takes away some of the brutality, moving it into the realm of playfulness and implies that Ukraine is secretly enjoying the treatment. Relativizing the bloody reality of the war.

6. Discussion

4Chan's /pol/ is often understood as a hive mind (Chen, 2012; Manivannan, 2012), as a place that, despite its anonymity and ephemerality, harbors a collective and unified identity with shared beliefs of what's right and

wrong. In the wake of the Russian invasion of Ukraine, we witnessed an obvious rupture in this collective and unified identity, as two contrarian and competing general threads started to appear on /pol/. The pro-Ukrainian “Ukraine Happening General” /uhg/ and the pro-Russian “Comfy Ukraine Happening General” /chug/, both featuring widely different understandings of how to interpret the happenings on the ground. This anomalistic open hostility within the same board has not been seen before on /pol/ and thus warranted our analytical attention.

Before the analysis we expected drastic differences between both general channels and within the first week, we showcased the opposite. Both threads appeared to use traditional 4Chan specific floating signifiers (see Tuters & Hagen, 2020) and far-right dog whistles. Surprisingly for us the language analysis showed /uhg/ being more overtly antisemitic and, what we described as, more traditionally 4chan-y (see Findings 5.3) than /chug/. It is not like /chug/ is not overtly antisemitic – particularly in their visual vernacular we see repeated insinuations of Marichka’s (the pro-Ukrainian mascot on 4Chan) affiliation with [The Happy Merchant](#) meme and globohomo (see Findings 5.7.1). Insinuating that pro-Ukraine sentiment is secretly being pushed as part of a global jewish agenda to control and subjugate the traditional world order.

This practice of labeling the enemy or, as Tuters & Hagen in 2020 termed it, the nebulous other as abstractly or concretely jewish results in some truly absurde constellations, where in Marichka – the anthropomorphisation of Ukraine’s Azov Battalion – and for that matter also Ukraine’s President Zelensky are described as a nazi jews. What now is defined as a jew or a nazi appears to lose total sense of meaning in this conflict. This behavior is mirrored by /uhg/ as they refer to the semi-viral images of Vladimir Putin standing with jewish rabbis, insinuating that Putin is also under jewish control.

So, are the two generals then not quite as different as we thought?

Well no, perhaps we can chalk the similarity of vernacular up to the shared origin and embeddedness of the generals, but the practices and more specifically the organizational practices and structures differ heavily between /uhg/ and /chug/. /chug/ is more organized than /uhg/. Starting in their rigorous organization of their baking guides and open intelligence repositories on reentry.org, over their canonical logo design strategy, all the way to their commissioned artwork. They appear to have their story straight, offering a well rounded arsenal of strategies to convince /pol/ of their authenticity and truthfulness. /uhg/ in comparison is more scrappy, having no discernable strategy in their aesthetic nor story telling. /uhg/ is reactionary, whilst /chug/ drives the story.

4Chan’s anonymity disallows us to make any further statements upon who the actual actors to make any sort of statement on whether concerted efforts to stir the story by external non-4Chan influences exist but what is certain is that both /uhg/ and /chug/ general channels can be seen as part of a normification of 4chan. Traditionally understood as the birthplace of internet myths, in the Ukraine war, both generals work merely as intermediaries to Telegram, reentry and [YouTube](#). An aggregator akin a grass roots news agency. Further research following down the pipelines of content creation (see Findings 5.7.1) is necessary to understand what to make of this normification.

7. Conclusion

The project investigated two competing general threads on 4chan discussing the war in Ukraine. Text and image data of opening and subsequent posts on the pro-Ukrainian /uhg/ and the pro-Russian /chug/ threads were collected using the 4CAT tool. Methods for analysis consisted of statistical, algorithmic and machine learning-based text analytics, relational network analysis of visual vernaculars and geographically dependent discourse, and quali-quantitative-based visual analysis. Analysis of OP greentext showcased the organizational capacities of the two general threads, with /uhg/ being the initial, more noisy and less coherent discussion forum, while /chug/, as a schismatic outcrop of pro-Russian segments of early /uhg/ threads, quickly became more systematized in their

baking strategies and cultivation of shared intercultural iconography. These differences are further elucidated through text analysis, revealing /uhg/ as focusing more on direct war reportage and external rivalry against /chug/, while /chug/ is much more internally oriented around inter-group reinforcement and performativity. Similarly, comparison between OP images reinforce such difference in interest, with /uhg/ presenting a larger set of evidentiary war images that might be instances of original journalism, while /chug/ focuses more on establishing its identity through logo branding. Image network analysis of detected web entities likewise confirm the cultural sophistication of /chug/ in relation to /uhg/ in the sense that the notable amount of non-web entities on /chug/ suggest a deeper, more differentiated visual vernacular, distinct from specific labels known by the Google Vision API. The shared image analysis presented a novel method for uncovering internal and inter-group rivalry and shilling, contingent community formation, grassroots reportage and a way to contextualize anomalies in the dataset. Analysis of country flag metadata reveal the influence of a national and regional context in terms of user activity, thread partiality, and discursive input, opening up an as of yet under-researched area of 4chan, relating to the centripetal forces of exogenous identities guiding 4chan culture and discursive practices. Finally, image analysis suggests predominance of sexualization of warfare, portraying it in terms of the trope of female sexual dominance and subjugation, or war as threatening the innocence of the female subject, who in turn need saving from it.

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