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# Between disclosure and conspiracy: the transparency effect on r/UFO and r/UAP subreddits

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# Between disclosure and conspiracy: the transparency effect on r/UFO and r/UAP subreddits

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## ABSTRACT

While there exists genuine scientific inquiry seeking to understand Unidentified Anomalous Phenomena (UAPs), the lore of Unidentified Flying Objects (UFOs) is deeply intertwined with narratives deliberately crafted to mislead, obfuscate, and manipulate public perception with a community historically targeted by sustained disinformation campaigns. In this study, we explore the public reception regarding UAP disclosures against the historical context of government disinformation and obstructive information flows. To this end, we retrieved the posts and comments featured in the UAP and UFO Reddit communities and modeled the data by constructing a timeline of governmental and intelligence announcements, leaks, and reports, but also congressional and senate committee hearings, special news reports, and DOD AARO public statements about UAPs. Using time series analysis techniques, we modeled this data to test whether government direct engagement with the topic has tangible effects in subsiding disinformation concerns and conspiratorial narratives within these communities. Our results show that the transparency effect driven by government disclosures effectively counters the erosion of trust fueled by conspiratorial narratives. We conclude by outlining the limitations and challenges embedded in the very idea of disclosure, a term that is ideologically and politically inflected and calls for further studies in this area.

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UAP; UFO; Reddit; Generative AI; Disclosure; Disinformation

## Introduction

The allure of the unknown, compelling anecdotal evidence, and the challenge of scientifically observing Unidentified Flying Objects (UFOs) fosters speculation and opportunity for narrative manipulation. Susceptibility is amplified by emotional investments among those within the UFO community – from experiencers to skeptics – ranging from

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genuine curiosity to fervent belief in intelligent non-earthly visitation. While scientific inquiry assesses specific cases of Unidentified Anomalous Phenomena (UAP) worldwide (Knuth et al., 2025), UFO lore is laden with narratives that mislead, obfuscate, profit from, and manipulate public perception.

Widespread disinformation surrounding UFO-related discourse obstructs rigorous scientific investigation into these phenomena and fosters an environment highly susceptible to manipulation. Multiple US state-sponsored disinformation campaigns that have historically targeted UFO experiencers represent an interesting object of research for inquiry at the intersection of influence operations and disinformation, on the one hand, and conspiracy and fringe beliefs, on the other. UFO-related disinformation campaigns proactively exploit and control public narratives for alternative agendas (Gorightly, 2021; Pilkington, 2010). By eroding public trust in official sources and fostering paranoia and suspicion, disinformation campaigns on UFOs blur fact and fiction, perpetuating a disinformation cycle in which a range of actors may subvert genuine accounts toward gainful deception.

The July 2023 US Congressional hearings on UAP shifted mainstream discourse on the topic, with some interpreting the event as ‘disclosure’ – a process by which authorities publicly admit to withholding evidence followed by the release of evidentiary information (Guthrie, 2025). On X, comments centered on concern, positive reactions, skepticism or indifference, and critical engagement, with the former exhibiting elements of ontological shock – or the transformative fracturing of worldviews (Lomas, 2025) – as detailed in the previous work discussing the implications of disclosure on organized religion (Ashby, 2023). After the hearings, reports of UFOs and UAPs became difficult to marginalize, likely due to the growing availability of government documentation and uptake in the distinct ways UAPs and UFOs are reported, interpreted, understood, and measured (Guthrie, 2025). In addition to the public release of government and military information, attendant archives and associations support documentation and research (AARO, 2025; Dzakovic, 2017; Fischer & Naylor, 2024; Greenewald Jr, 2019; NARA, 2025). These feed a vibrant cultural and media milieu associated with disclosure, a political movement seeking greater government transparency around spending, programs, classification, and UAP materials.

Observers have described retired US Navy Commander David Fravor’s disclosure of his role in the 2004 USS Nimitz UFO incident, where his team encountered a mysterious ‘tic-tac-shaped’ object off the coast of Southern California (Fridman, 2020), as a milestone in a ‘monumental looming UFO scandal’ (Lomas et al., 2025). This occurred alongside the filing of a whistleblower complaint by retired Major David Grusch (Baio, 2023), US Air Force veteran and a former member of the National Geospatial-Intelligence Agency and UAP Task Force, who testified about an active US government disinformation campaign to deny the existence of UAPs, and claimed that the US government has withheld evidence of UFOs, including ‘intact’ non-human aircraft (COA, 2023). Public statements of high-level US military officials indicate active engagement (Yingling et al., 2023), a turn away from prior decades’ accounts of a range of actors utilizing UFO narratives to discredit and silence witnesses and experiencers through allegations of psychological instability (Jacobs, 1975).

It is against this backdrop Donald J. Trump campaigned for a second term as US president indicating his intent, once elected, to release classified documents about UFOs and

UAPs among other controversial records (Fridman, 2024). On 24 January 2025, he signed an executive order to declassify records concerning the assassinations of President John F. Kennedy, Senator Robert F. Kennedy, and the Reverend Dr. Martin Luther King, Jr., but not documents related to UFOs or UAPs. Three months later, US Secretary of State Marco Rubio announced the closure of the US Counter Foreign Information Manipulation and Interference office, a center for combating disinformation threatening US national security.

Other developments associated with UAP disclosure include increased polarization around hot-button issues via social media, federal divestment of public media and news, and privatization of infrastructures undergirding space exploration and defense and intelligence operations. Social media discussions of UAP and disclosure represent observables within a rapidly shifting sociotechnical, media, and political communications landscape, with online discussions and commentary closely following government disclosures while also advancing conspiratorial narratives whenever meaningful disclosures are perceived to have been concealed.

In light of the above, we employ Large Language Models (LLMs) and time-series analysis to test whether government disclosures and public hearings about UFOs/UAPs have an observable effect in warding off disinformation and conspiratorial narratives in UFOs/UAP communities. To this end, we gather threads from two popular UFO/UAP subreddits and map them onto a chronology of official government disclosure events, including testimonies before US Congress and official release of reports. We hypothesize a ‘transparency effect’ in which government disclosures effectively counter the erosion of trust fueled by conspiratorial narratives.

## Previous work

Prior literature positions UFOs and UAP alongside accounts of government secrecy, psychological operations (psyops), and domestic and foreign disinformation campaigns (Kean & Blumenthal, 2023). The specialized, if grey, scholarship in the area (Brewer, 2017; Pilkington, 2010) characterizes cases in which US intelligence actors infiltrated UFO communities and manipulated their systems of belief and practice to obscure classified aerospace programs, mislead adversaries, or control public perception. Despite official documentation detailing these operations, academic research on disinformation targeting the UFO community is scarce. This research agenda may have been occluded within the last decades’ focus on conspiracy thinking (Oliver & Wood, 2014), in which UFO culture is associated with conspiratorial ‘the truth is out there’ tropes (Jacobs, 1975; Sunstein & Vermeule, 2009).

Historically, the intersection of government secrecy and conspiracy thinking in UFO lore stems from the Cold War when defense officials considered UFO sightings a national security concern. Programs like the US Air Force’s Blue Book (1952–1969), Project Sign (1947–1949), and Project Grudge (1949–1952) investigated UFOs (Department of Defense, 2024) while using disinformation to control public narratives (Brewer, 2017). A pivotal development in these campaigns was the 1953 Robertson Panel, convened by the CIA, which concluded that UFO reports were driven by the misidentification of mundane aerial objects, but that they could be exploited for psychological warfare (Durant, 1953). These psyops exploited sensationalist media coverage perpetuating narratives

of ‘flying saucers’ while disregarding issues germane to science, technology, and national security (Hutchison & Strentz, 2019). The panel recommended debunking UFO sightings to prevent public hysteria and to ensure that secret aircraft – such as the Lockheed U-2 high-altitude reconnaissance aircraft – would not attract attention (Jacobs, 1975). This policy laid the groundwork for decades of government-sponsored disinformation campaigns and skepticism towards UFO folklore (Robertson, 2016).

In the 1970s, Hector Quintanilla, the last head of Project Blue Book, admitted that the Air Force routinely lied about UFO cases to protect classified programs (Quintanilla, 1974). This contradicts 1950–1960s US Air Force projects that concluded that ‘nothing has come from the study of UFOs’ and that ‘further extensive study of UFOs probably cannot be justified’ (Condon & Gillmor, 1969, p. 2). In a retrospective investigation, Brewer (2017) asserts that the ‘alien abduction’ narrative was partly a construct of influence and psychological operations designed to divert attention from black-budget aerospace projects. Richard Doty, a one-time employee with the Air Force Office of Special Investigations (AFOSI), acknowledged feeding disinformation – faking documents and staging UFO sightings toward psychological harassment – to earnest UFO researchers like Paul Bennewitz in the 1980s (Pilkington, 2010), but later developed a persona as an expert on the existence of UFOs and government disinformation on the subject.

Elaborate but false stories of crashed alien spacecraft and extraterrestrial contact offered a smokescreen to conceal the development, testing, and deployment of advanced technologies such as stealth aircraft and drone technology without attracting unwanted scrutiny. This was brought to the fore in the Bennewitz Affair and the ‘Majestic 12’ (Bishop, 2005), an alleged secret committee of scientists, military leaders, and government officials formed in 1947 by President Truman to facilitate the recovery and investigation of alien spacecraft. Falsified documents highlight this effort, including that of US government agencies’ intent to manipulate beliefs in extraterrestrial visitors (Majestic 12, 1984). While the goal of the 1953 Robertson Panel was to deter public discussion of UFOs, the 1980s AFOSI Majestic 12 disinformation campaign was aimed at deterring researchers considered threats to US national security (Pilkington, 2010). These campaigns contribute to the dynamics of skepticism and manipulation shaping contemporary UFO folklore and research (Anton & Vugrin, 2022).

For Brewer (2017), prior investigations of UFO phenomena are marked by (1) interpersonal and sexual power manipulations between investigators and experiencers; (2) low to no standards of research rigor; (3) CIA, FBI, and NSA uses of psychological techniques to subvert knowledge of illegal or unethical covert political actions; (4) the cult-like belief system of UFO believers who tend toward speculative mentalities and a flawed pursuit of ‘truth’; and (5) the gullibility and mental weakness of broad sections of the public who combine aspects of UFO experiences with extremist belief systems such as Christian cults and paranoid distrust of government. In this environment, influential actors in ufology – such as Robert Bigelow, Budd Hopkins, and David Jacobs – can maneuver ufology as a cover for harmful or self-aggrandizing ulterior motives.

Recent scholarship on disinformation and cover-ups associated with UFO phenomena is also informed by computer scientist and venture capitalist Jacques Vallee (1975), who wrote about a team of scientists known as the ‘Invisible College’ and the processes that make UFOs difficult to study (Wright & Harzan, 2019). These processes consist of three categories. The first is the negative attitude of government, scientific, and military

authorities, resulting in discouraging attitudes; poor reporting; refusal to acknowledge existing reports; harassment of scientists and others; withholding findings and experiences; deceit; paying scientists to negate findings; and data destruction. The second cover-up is obfuscation, or the release of official explanations that do not explain anything. Obfuscation heightens social adversity for those who hold evidence. The third cover-up is the silencing capacity of UFOs: loss of faculties among experiencers; encouragement not to disclose; and mysteries incommensurable with scientific observation. For Vallee (1975), human perception of UFOs is wrapped in an extradimensional ‘system of control’.

This body of work on government disinformation and UFO research precedes the 2017 New York Times coverage of government UAP programs (Dzakovic, 2017), which has since seeded peer-reviewed research (Bram, 2021; Krame et al., 2025; Lomas, 2025). Documentation and reports released by the Pentagon, Department of Defense, and NASA illustrate ‘confirmed conspiracy theories’: once-speculative theories substantiated by evidence. For Parker (2024), the empirical validation of certain conspiracy theories requires a reassessment from academics who may have previously unjustly pathologized such theories. In the case of UAP, confirmed conspiracy theories are distinguishable from, yet related to, instances where elite actors have demonstrably engaged in covert and coordinated deception, such as the documented cases of intelligence officers orchestrating disinformation campaigns related to UAP.

The pathologization of these narratives can obscure legitimate critiques of institutional and government power, particularly when intelligence agencies, corporations, and political elites are the purveyors of conspiratorial slamming that later gained official acknowledgment. In the context of UFOs, potential and alleged criminal conspiracies are evinced in the testimony of David Grusch, who required whistleblower protection from antagonistic forces within the US defense community, and Fravor, who states he has been believed and relatively unharmed in his account of an UAP encounter. This reassessment is similar to those that occurred after disclosures bearing a combination of criminal conspiracy and confirmed conspiracy theory, including the Tuskegee Syphilis Experiment, which revealed how illicit medical testing was shaped by widespread racial discrimination. Similarly, analyses of COINTELPRO reveal government violations of civil rights as evidence of political repression in a democracy. Analyses of MKUltra reveal illicit medical testing as a byproduct of investigations into human psychological capacities. Continued analyses of Snowden’s disclosures of NSA Surveillance Programs reveal aspects of US-style autocracy.

The pathologization of conspiracies can also trigger boomerang or backfire effects whereby psychological reactance is directed towards academic institutions and the government (Prot & Anderson, 2019). Confirmed conspiracies accelerate public distrust in the media and compound partisan rhetoric by entrenching divergent perceptions of credibility. They can also challenge consensus reality as the splintering of narratives leads to social cohesion being contested, deemed unverifiable, or broadly assumed to be illegitimate (Vinhas & Bastos, 2022). Disinformation campaigns erode trust in media, government, and academic institutions by making it harder to discern genuine leaks and whistleblower accounts from fabricated narratives, with disinformation campaigns waged by the government against its own population being particularly nefarious (Lewandowsky et al., 2017). Thus conspiracy theories, including those around UFOs, can be both

organic and deliberately seeded by adversarial authorities to discredit legitimate inquiries (Sunstein & Vermeule, 2009). There are also ethical consequences of government deception on public trust and scientific inquiry, as the perception of opaque power structures controlling information runs counter to public expectation of reasonable transparency.

Indeed, typical social scientific studies of UFOs classify the topic within a conspiracy theory umbrella suggesting that the US government has secretly held intelligent alien life, and that aliens have repeatedly visited Earth. This characterization is in line with Brotherton et al. (2013)'s conspiracy of extraterrestrial cover-up, malevolent global conspiracies, and control of information (Hanley et al., 2023) and is instrumental to the systematic discrediting and ridicule of the subject (Anton & Vugrin, 2022). Nevertheless, a recent national study surveyed faculty across 14 disciplines at 144 major US research universities regarding UAP and found that curiosity outweighed skepticism or indifference, with faculty notably aware of reports but not of relevant legislation (Yingling et al., 2023). In addition to studying the stigma associated with UFO research, academics raised concerns about the heightened level of securitization associated with UFO discourses, particularly in the US. This body of work foregrounds the tension between expert discourse and UFO narratives at the center of difficult-to-explain phenomena (Johnson & Sparks, 2024; Lipińska et al., 2025; Sparks et al., 1998; Sparks & Pellechia, 1997).

Taking a scientometrics approach, Murphy (2024) showed through citational patterns that the field of international relations ignores the topic while displaying authoritative disregard for UFOs by denying their object status. The relative absence of academic research on UAPs, and previous generations' seeded skepticism of the topic, was historically consistent with the governmental discourse on UAPs marked by strategic ambiguity and maniacal national security imperatives (Wendt & Duvall, 2008). A significant shift is identified by Krame et al. (2025), who noted the Pentagon's discourse moving from outright dismissal to the acknowledgment and national defense funding of research on UAPs. Increasing technical and sociotechnical contributions are stimulated by the confluence of advancements in artificial intelligence and aeronautics, shifts in government securitization discourses, and the trend toward space governance and privatized space intelligence (Knuth et al., 2025; Platzer, 2025; Schwarz & Seidl, 2023).

In communication studies, analyses of digital communication dynamics in ufology spheres in particular show how processes of disclosure contribute to a 'pragmatic of secrecy', in which ufology reproduces itself by constantly releasing secret information, including declassified documents, alongside interviews with military personnel who allegedly participate in cover-ups (Almeida, 2020). While 1950s-style media coverage of little green men may be outmoded by recent UAP disclosures, the pragmatics of secrecy is apparent in US press coverage of UAPs as objects that exist but for which no explanation can be made available (McVittie & McKinlay, 2023). In short, the information landscape surrounding UAPs is marked not only by tangible disinformation campaigns and the erosion of trust in government, but also by posthumanist and transhumanist analyses of human/nonhuman relationships shaping national defense policy and infrastructure.

## Objectives

With regard to the central thesis of ufology, we clarify that this study has no intention to promote or otherwise provide subjective analysis of intelligent non-human extraterrestrial or transdimensional entities in our galaxy or beyond. Rather, the purpose of this study is to chart the emergence of narratives and discussions on social media that counter or relate to the conspiracy thinking, disinformation, and secrecy popularly associated with the UAP and UFO phenomena, including government disinformation and disclosure practices constitutive of this information ecosystem. To this end, we hypothesize that government disclosures and public hearings about UFOs/UAPs have an observable effect in offsetting conspiratorial thinking and disinformation in social media communities, namely on UFO and UAP subreddits.

Commensurate to this hypothesis, we also identify persistent topics discussed by the UAP and UFO communities on Reddit, and the prevalence of aspects of disinformation and conspiracy thinking. We unpack these trends against a set of recent public initiatives, including US congressional hearings, likely to cross-pollinate with social media dynamics and discourses about these phenomena. While we expect public hearings, Freedom of Information Act (FOIA) requests, declassified documents, and the publication of reports to offset debunking and conspiracy thinking, we are cognizant that many of the documented disinformation campaigns targeting this community have been carried out by US defense and intelligence units. As such, trust between this community and federal government entities – including private security subcontractors, some of whom participate in these communities – is at best fragile.

## Methods and data

We compiled a timeline of US government UAP efforts and disclosures from 2018 to 2024 following the influential 2017 New York Times coverage of government UAP programs. This includes the publication of several dozen reports, congressional and senate committee testimonies, the establishment and disestablishment of government initiatives, intelligence reports, memos, government announcements regarding UAP task forces, the publication of National Defense Authorization Acts from 2020 to 2024, reports in national newspapers of UAP activity, including the shooting down of UAPs, and special reports broadcasted by media sources influential in the UFO community, including News Nation and The Debrief. We also included NASA and Department of Defense (DOD) All Domain Anomaly Resolution Office (AARO) public statements about UAPs. The timeline includes over 50 data points that we employed to model the Reddit data (see Appendix 1 for the timeline of US government disclosures about UAPs).

Next we collect a dump of Reddit data provided through the Institute for Reproducible Research's Academic Torrents (Cohen & Lo, 2014; Lo & Cohen, 2016). Reddit is the public forum where prominent ufologists and UFO influencers post detailed comments and engage in critical discussion about the topic, rendering it the most important social media platform for qualified UFO/UAP public discussions. We select the subreddits UAP and UFO from a database of the top 40,000 subreddit comments and submissions that include content posted between June 2005 and December 2024.

The UFO subreddit is a public community with the stated objective of discussing sightings, experiences, news, and investigations associated with Unidentified Flying Objects while ‘maintaining healthy skepticism.’ The community was created on 11 March 2008, and counts 3.5 million users. The UAP subreddit is considerably smaller, although it still ranks in the top 1% of Reddit communities, counting over 200,000 members. It is a public forum created on 3 August 2011 with strict posting rules for discussing Unidentified Anomalous Phenomena and Unidentified Aerial Phenomena. This database was originally put together through the Pushshift API, an open-source project that featured important advantages over other methods for collecting Reddit data, particularly over crawlers, most notably because it can retrieve historical data as far back as 2005 while also providing endpoints for retrieving data from various Reddit features, including submissions, comments, and subreddits. The UAP and UFO data with comments and submissions are just under 3GB and counts 1,205,147 lines combined.

The Reddit Pushshift database includes posts from June 2005 to December 2024, but data collection for the subreddits explored in this study covers a shorter period. The UAP subreddit includes posts from September 2014 to December 2024, whereas the UFO dataset includes posts from October 2017 to December 2024. With Reddit functioning as a bulletin board system, point of data collection has consequences for database completeness because subreddits can be updated over time. The lag between the original post and the point of data collection is critical as threads grow over time. For the UAP subreddit, the lag between post creation and data collection is on average 33 days, with a maximum of 774 days. The UFO subreddit averages 59 days with a maximum of 360 days for a few posts. The time elapsed from post creation to the point of data collection should account for most of the content, as Reddit activity occurs largely within a short time frame after post creation (Krishnappa et al., 2024). We also inspected the temporal series with Augmented Dickey–Fuller tests to establish whether the series have a unit root, with the results indicating that the series are stationary.

We subsequently process the Reddit data using a Large Language Model (LLM) for automated content analysis. We begin by testing the performance of a set of LLMs for text classification, namely Mixtral-8 x 22b, Llama 3 70B, OLMo2 7B, Gemma 27B, and Gemini 2.0 Flash. We also tested ChatGPT 4o from OpenAI, but it proved unsuitable due to the limited context window size and the large text corpora that are typical of Reddit threads (submissions and comments). For replication purposes, we also favored open-source models and prompted them with temperature set to zero. Coding was performed using Google’s Gemma and Gemini family of models, which support long context windows (MRCR 1M) and high F1 scores for reasoning (GPQA diamond) and factuality (FACTS Grounding). While Gemini is a multimodal model, we restrict our application to a text-to-text, decoder-only large language model with instruction-tuned variants based on the transformer decoder. Gemma 27B and Gemini 2.0 Flash proved well-suited for text generation tasks, including question answering, summarization, and reasoning. We performed a test run on the Gemma 2 family using the 27B, 9B, and 2B parameter models, with the latter using multi-query attention (MQA) in contrast to the former, which is based on multi-head attention (MHA). Gemma 9B and Gemini 2.0 Flash proved the most effective at identifying salient themes on subreddits (Gemma Team, 2024; Törnberg, 2025).

We relied on the above data processing pipeline to classify 11,818 post threads (submissions and associated comments) in the subreddit UAP and 51,546 post threads in the subreddit UFO. The dataset includes a total of 99,619,218 characters which translate to just over 25 million tokens across the two subreddits. Prompt design entailed several iterations and yielded the following query: ‘You are an expert qualitative coder. Classify succinctly the following text across these categories: (1) theme, (2) aspect, (3) sentiment, (4) evidence, (5) keywords, (6) context, (7) classification. Also provide the probability with two decimal points. Output should be provided as json using this schema: output = ‘\$topic’: str, response: str ‘\$aspect’: str, ‘sentiment’: str, ‘evidence’: str, ‘keywords’: str, ‘context’: str, ‘classification’: str. Here is the text’.

The classification task was effective with the model indicating a probability score of  $\bar{x} = .95$  and  $\tilde{x} = .97$  for the UAP subreddit and  $\bar{x} = .95$  and  $\tilde{x} = .95$  for the UFO subreddit, a measure of the confidence in the classification provided by the model. The last step of data processing entailed the manual inspection and aggregation of labels across common themes. By manually recoding and aggregating labels across common themes, we managed to synthesize and reduce the number of topics to 50 categories, which account for 91% of the UAP and UFO subreddits combined (see Appendix 2 for the top 50 topic categories in the UFO and UAP subreddits). Intercoder reliability was calculated for a random set of 50 subreddit threads using the abovementioned classification labels. Krippendorff’s alpha between coders of the research team and the LLM was .701 and Cohen’s kappa was 0.69.

We subsequently apply time series analysis to identify significant lags in the data and test the relationship between the timeline of government UAP disclosures and user activity in the UAP and UFO subreddits. Cross-correlation analysis is suitable for our temporal series, which consists of critical events with lagged effects, but it requires regular intervals, so we aggregate the temporal series by day. This generates 25,539 post threads that feature any of the most recurrent themes posted over 6 years or 2323 days, with the bulk of the activity concentrated between 2018 and 2024 (see [Figure 1](#)). Cross-correlation analysis identifies potential correlations and detects lagged influences between two time series, with the null hypothesis identifying no significant linear relationship between two variables. In other words, the cross-correlation function (CCF) can identify the past lags of the  $X$ -variable (government disclosures surrounding UAP) that might be useful predictors of the relationship between the  $X$  and  $Y$  series. As we are interested in the effects of government disclosures on engagement in the UAP and UFO subreddit communities, we rely on CCF to identify if the series  $Y_t$  lead the time series of  $X$  given in any time lags  $h$ .

Finally, we explored the network of posts and comments by generating an incidence matrix of post labels derived from the LLM classification and activity derived from comments to submissions. We calculated the cross product of this incidence matrix to create an adjacency matrix, thereby converting the bipartite and two-mode network of comments and posts into a one-mode network, and ultimately normalizing the bipartite graph to identify cross-posting activity and activity that was restricted to the UAP or UFO subreddits. This approach yielded a network of topics across the UAP and UFO communities with the number of ties derived from users’ activity connecting these posts. User activity is retrieved from the author and parent\_id variable, with the latter receiving a t3 tag if it is a top-level comment describing a submission and a t1 tag if it describes a comment.



## Results

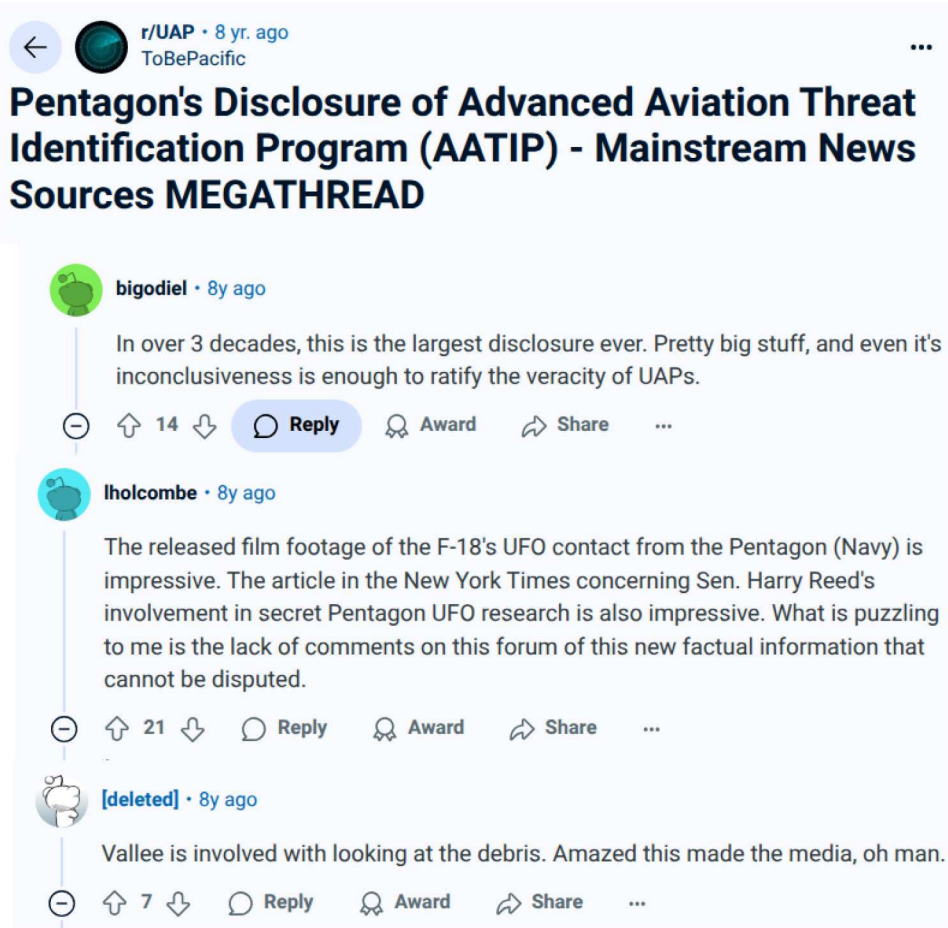
We begin by inspecting the UAP coded Reddit thread. Except for the terms UFO and UAP, disclosure is the most common word in the classification label, followed by sighting and government. The UFO subreddit is more likely to feature discussions of conspiracy theory and debunking compared with the UAP subreddit where Reddit moderation is stricter, with discussions of conspiracy theory being the second most common topic on the UFO subreddit and only the fourth on the UAP subreddit. The same applies to opinion, which is the 16th most common post thread on UFO compared to 25th on the UAP subreddit, and eyewitness accounts (23rd compared with 27th for the UAP subreddit). More importantly to the rationale of this study, we found that high-profile government disclosures drive a substantive portion of the activity online. Indeed, [Figure 1](#) shows that these disclosures are likely to be a significant driver of online activity in the UAP and UFO communities.

[Figure 2](#) shows a post from December 2017 on the UAP subreddit that features several comments about high-profile government disclosures. This post is characteristic of discussions that frame disclosure as events. Disclosure events indicated here are the Pentagon's explanation of AATIP, a program charged with investigating reports of UAPs, and the New York Times article that kickstarted the government UAP disclosure timeline. As disclosure entails social debate, the post also consists of discursive strategies such as community-centered information-sharing and a call to skeptical analysis and commentary. These discursive strategies are frequently expressed in UAP and UFO Reddit communities and relate to the functional purpose of Reddit.

[Figure 3](#) shows a disclosure-related post from June 2023, with a UAP Reddit member distributing a verbatim quote by retired CIA officer John Ramirez about Walter Scott, a member of the 2022 US National Aeronautics and Space Administration's (NASA) Independent UAP study committee (Furfaro, 2022), followed by a bio of Walter Scott and a discussion of the evidence. This post is typical of disclosure subreddits in that the user releases insider details alongside salient information about a disclosure event, a set of information that is then followed by skeptical critique. There is discussion of trust, typical of disclosure-related posts, as well as attendance to the communicative values of the Reddit community, and a link to media (podcast). Eleven comments follow this post.

Next we perform cross-correlation analyses (CCF) to the series and test for optimal lags that are significant at the 95% confidence interval level. If no significant pattern of correlation exists between the series, we reject the null hypothesis and conclude that the series are co-occurring. The results, however, present significant relationships and we therefore reject the null hypothesis to conclude that the temporal series of government disclosures do lead the temporal series of activity on the UAP and UFO subreddits. We aggregate the number of posts and comments to daily frequencies and model the data with respect to the timeline of disclosures gathered for this study (see Appendix 1 for the timeline of US government disclosures about UAPs). The CCF models are thus fitted to much shorter series due to the many dates when no government disclosure was identified, a shortcoming that could only be offset with a block resampling strategy for bootstrapping the temporal data.


[Figure 4](#) shows the autocorrelation function for the CCF models, with significant lags identified between  $-1$  and  $1$  days, which means government disclosures drive much of



**Figure 2.** December 2017 post on the UAP Reddit community featuring comments about high-profile government disclosures.

the Reddit activity in the day prior to the event (e.g., congressional hearing) or after it takes place (e.g., publication of the UAP report by the government intelligence agency). US government disclosures about UAPs are significantly more likely to drive conversations and deliberation about disclosure ( $r = .10$ ,  $\text{lag} = 0$ ) and transparency ( $r = .10$ ,  $\text{lag} = -1$ ) than conspiratorial, debunking, or sightings content, to which the lags are several weeks, if at all significant. These results support the hypothesis that public hearings, congressional and senate hearings, and government agencies' declassification of information lead to public deliberation that is marked by a focus on transparency and disclosures, and where conspiratorial and debunking content is deemphasized, as is discourse about government involvement and government secrecy. Notably, public deliberation is characterized by a number of discursive and rhetorical strategies, such as argumentative debate, information-sharing, media criticism, analysis, political commentary, critique, and some speculative analysis.

The immediate impact of government disclosures to open conversations that deviate from the conspiratorial trope and the disinformation narratives that populate UFO lore

 **bmfalbo OP** · 2y ago

Submission Statement:

Retired CIA Officer, John Ramirez, had some real interesting things to say about a CIA colleague who is participating in NASA's UAP Independent Study.

First off, shoutout to [UAP STUDIES Podcast](#) for the fantastic interview!

Full interview: <https://youtu.be/Yfxsdw4QSbk>

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Ramirez on an unnamed CIA officer (Walter Scott) among the NASA UAP Independent Study:

"Operating prior to disclosure, yeah, so they're going to be restricted like Dr. Kirkpatrick and they're going to be restricted by what they can say so it would not surprise me that NASA now in a few days will say things and then NASA after disclosure will say something different and after disclosure they'll be a little more honest about what they know there are there is a CIA officer embedded in that study group I'm not going to call out his name (Walter Scott) but he was in CIA in the imagery field he worked for an organization called the National Photographic Interpretation Center which was part of the Directory of Science & Technology when I was there and now it's called the National Geospatial Intelligence Agency which has all of the photographic and video data of all these UAPs and he's there but he you know he was associated with Digital Globe and MAXAR technologies which provide the imagery for Google Earth for example, and he's there and I don't... I'm not saying that he's there as a plant or anything but he would know the background information as to what we are really interested in and maybe he won't be prepared to at this time reveal anything that he might know and I know I'm going to get a phone call about what just told you"

---






NASA's UAP Group Bio on Walter Scott:

Walter Scott is the executive vice president and chief technology officer of Maxar in Westminster, Colorado, a space technology company that specializes in earth intelligence and space infrastructure. In 1992, he founded DigitalGlobe which became part of Maxar in 2017. He has held leadership positions at the Lawrence Livermore National Laboratory in Livermore, California and was the president of Scott Consulting. In 2021, he was inducted into the David W. Thompson Lecture in Space Commerce by the American Institute of Aeronautics and Astronautics.


Source: <https://www.nasa.gov/feature/nasa-announces-unidentified-anomalous-phenomena-study-team-members/>

Tip:






ctrl-f: Walter Scott

 7   Reply  Award  Share ...


---

 **Orbital** · 2y ago






This is the second time I've seen it suggested Walter Scott is from the CIA - is there any evidence or is that a guess? Not trying to call you out, genuinely curious. It wouldn't surprise me, but if there's hard proof that's reasonably big news imo.

 5   Reply  Award  Share ...


---

 **[deleted]** · 2y ago






So NASA has a CIA operative in the UAP study team? I had no expectations that this study was going to be legit, and this is proof of it.

 3   Reply  Award  Share ...


---

 **fripperiffic** · 2y ago

Once CIA is involved, you can just toss it out the window. It's instantly completely lacking merit or credibility.






 3   Reply  Award  Share ...

---


 **3DGuy2020** · 2y ago

Jfc it was painful to read that quote. He speaks in circles without any coherence and at the end says nothing. A whole paragraph just to say "there is a guy embedded in the nasa group who has the knowledge and background of what we're looking for, but I don't know if he will reveal anything".






Not only that, but he describes the "plant" work history but won't say his name?? Is he stupid? Something smells off about this retired "cia officer".

 2   Reply  Award  Share ...

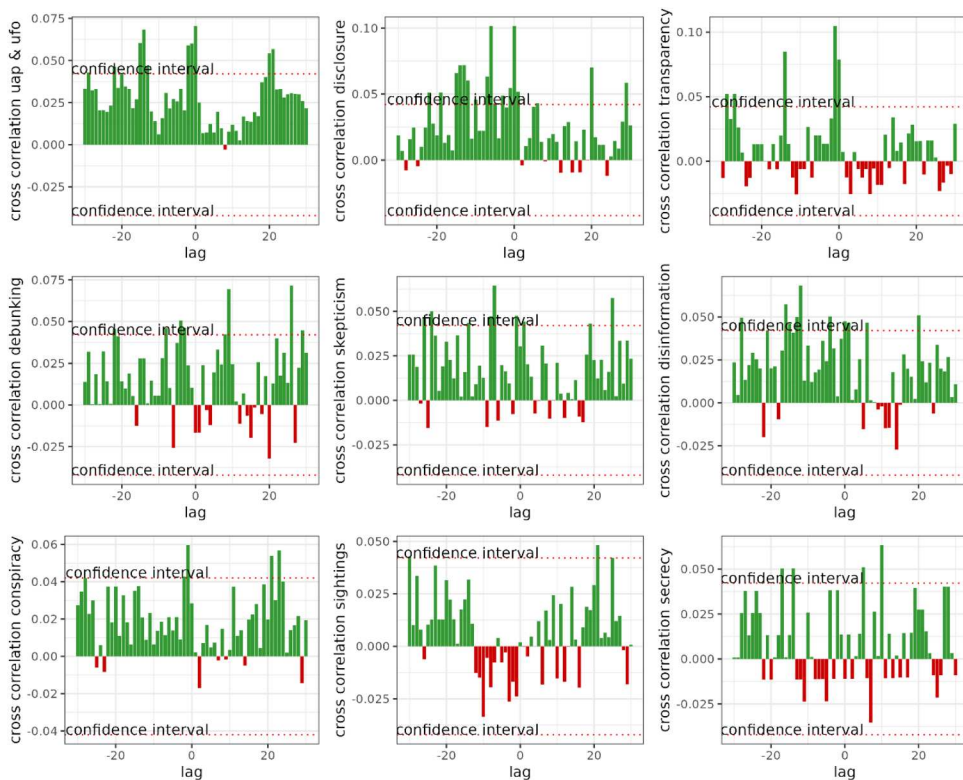
---

 **YoungBlastoise44** · 2y ago

NASA at it again. Don't trust anything from them. Especially the CIA 😬

 1   Reply  Award  Share ...

**Figure 3.** June 2023 disclosure-related post with a verbatim quote by retired CIA officer John Ramirez about Walter Scott, a member of the 2022 NASA Independent UAP study committee.



**Figure 4.** Cross-correlation plot for the lagged effects of government hearings and publications on UAP and UFO subreddits faceted by topical variation around disclosure, transparency, debunking, disinformation, conspiracy theory, sightings, skepticism, and government secrecy. Spikes in the plot represent stronger CCF values, with optimal cross-correlation found between 0 and 1 days. Upper and lower dashed lines represent 95% confidence intervals, with government disclosures and publications accelerating discussion and deliberation around transparency and disclosure where correlation coefficients are  $>.10$ .

are another significant marker of this effect. The short lag is also consistent with our expectation of lingering effects of governmental disclosures onto the UAP and UFO sub-communities, as lags of 0 and 1 present the maximum CCF value, however, significant effects continue to be observed in the series as shown in [Figure 2](#). Notwithstanding the reduced temporal series used to fit the CCF model, we find that government disclosures have a high correlation with Reddit activity, where ACF scores are at or above  $.10$  for discussions about transparency and disclosure, with discussions surrounding conspiratorial thinking nose diving in the period. The CCF models thus confirm that it is possible to support a fact-based discussion about UAPs and UFOs that deviate from disinformation and government conspiracies that plague the topic, with the timeline of disclosures used to model the data identifying significant relationships to this effect. As such, the data are inconsistent with the null hypothesis  $H_1$ , and we conclude that government transparency about the topic effectively counters the disinformation and secrecy that have marked much of the UFO debate.

Finally, we probe the network of comments and topics in the UAP and UFO communities. These communities are marked by substantive differences, with UAP emphasizing issues surrounding trust, government, military, and national security discourses. The UFO subreddit, on the other hand, is decidedly more mystical with posts that address

← **r/ufo** · 2 yr. ago  
ItsTheBS

## Las Vegas UFO is NOT a hoax and here is exactly why...

**NoPlanCuzImDaMan** · 2y ago

It's believable because everyone involved believes it too but it still doesn't make it true. Just all the ingredients at the right time. Notice how this never went viral until right before Grusch and Dr Greers claims? This is a distraction from the real truth. Ignore the Las Vegas bs

3 ↑ ↓ Reply Award Share ...

**ItsTheBS OP** · 2y ago

**KingAngeli** · 2y ago

**\_Obese** · 2y ago · Edited 2y ago

thanks bro. there was another poster that said she was driving north on christy lane and saw the "meteor" coming down. she swore it must of come down only a couple blocks away. \*\* might I add it fell in front of her.. so that could anywhere 90-180 degrees. Ill see if i can the find the post

-1 ↑ ↓ Reply Award Share ...

**ItsTheBS OP** · 2y ago

**[deleted]** · 2y ago

I believe it is real for personal reasons. The day after the event in Vegas, I had a visitation by a presence that was over eight feet tall and appeared as the Hindu God Shiva, who in classical literature is between seven and nine feet tall. I experienced this visitation in the form of a shamanic interaction, so I don't have pics lol, but it was one of the most startling and amazing interactions I've had in my life. I distinctly remember that it was the tallest being I've ever interacted with. It has light blue/green/grey skin and appears as Shiva, with large eyes. Also, sort of the kicker, is that I am planning to move to Vegas in two months to transfer for work to work in a factory that is in North Las Vegas pretty much near to where you located the fireball and incident. I've been looking for places in North Las Vegas over the last few months, and was investigating about Vegas before and after the visitation.

I understand that this is just my experience, but I believe the interaction. I think Shiva has returned.

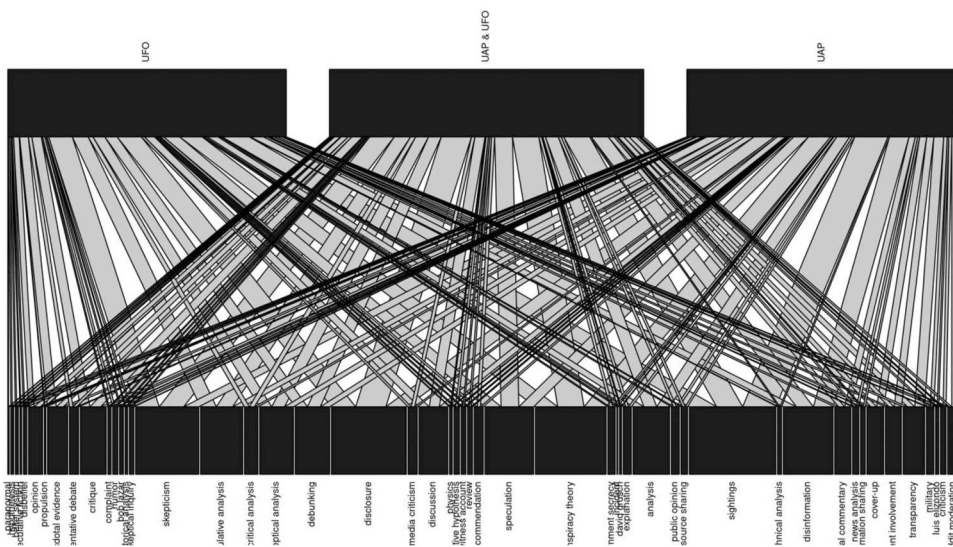
Edit: I didn't hear about the Vegas incident until June, I just looked in my journal and saw that my visitation was one day after this event.

1 ↑ ↓ Reply Award Share ...

**Figure 5.** June 2023 post referring to the 30 April 2023 sighting of a shooting star, or meteor, that a Las Vegas family experienced as a spacecraft with tall and frightening alien entities.

religiosity, entertainment, spiritual search, paranormal activity, and systems of belief (Bader et al., 2017; Kripal, 2024). Figure 5 features a post from r/UFO offering anecdotal evidence that touches on spirituality and systems of belief. It refers to the 30 April 2023 sighting of a shooting star, or meteor, that a Las Vegas family experienced as a spacecraft containing tall and frightening alien entities (Kaye, 2023). It also references another post on the Las Vegas meteor event, a common thread in communities devoted to understanding hard-to-explain phenomena. The discussion thread ponders how the April 30 event did not go ‘viral’ until the June 2023 disclosures of Retired Major David Grusch and the follow-up by influential ufologist Dr. Stephen Greer, as well as personal testimony of a moment of spiritual reverie and personal life transition.

It is worth noting that the influence of media entertainment is apparent in the UFO subreddit, with several posts discussing pop culture, including how UFOs figure in gaming, movies, shows, and consumer products like clothes and decorative items. The UFO subreddit is also larger featuring 994,886 comments posted by 95,477 users, whereas the UAP subreddit features 146,897 comments posted by 27,945 users. There is, however, a considerable overlap of users posting across these communities, with 13% of the UFO user base also commenting and posting on the UAP subreddit. The crossover from UAP users to the UFO is even larger, as 46% of users on the UAP subreddit also commented or posted on the UFO subreddit. Users who post across UAP and UFO subreddits are more engaged with posts about debunking, conspiracy theories, and particularly disclosure, whereas users who posted exclusively on the UAP subreddit are more likely to discuss sightings, disinformation, and analysis. Users posting exclusively on the UFO subreddit, finally, tend to emphasize anecdotal evidence, but also skepticism. Figure 6 unpacks these differences.



**Figure 6.** Topical differences across users who posted across UAP and UFO subreddits compared with those who post only on the UAP and UFO subreddits, with cross-postees more likely to engage with debunking, conspiracy theories, and particularly disclosures, whereas the UAP subreddit features more posts on sightings, disinformation, and analysis and the UFO subreddit emphasizes anecdotal evidence and skepticism.

## Discussion

In this paper, we explored the reaction of UFO and UAP communities to the tension between disinformation and disclosure against the backdrop of growing governmental activity in the area. While disinformation is rampant in the area, disclosure is a practice that intersects with different issues beyond the more obvious empirical dimension we unpacked from the data. Disclosure in practice is a context-rich experience, obstructed by legalism, gatekeeping, power struggle, deception, jurisdictional territoriality, documentation and archival practice, and increasing precision of key terms and protections – a contentious political arena richly detailed in the documents included in the timeline (see Appendix 1).

This is evident through a review of FOIA'd communications, government documents, and memos used to construct the timeline for the cross-correlation analysis. A notable example includes a series of text messages and memos exchanged between former Advanced Aerospace Threat Investigation Program (AATIP) member Chris Mellon and AARO Director Sean Kirkpatrick, in which the reader can gain insight into the mechanisms by which Mellon negotiates shared understanding of the legal protections for whistleblower Major David Grusch in light of Grusch's 2023 refusal to interview with AARO (AARO, 2024). Also evident is the continually clarified definitions of UAP and associated phenomena through National Defense Authorization Acts and addendums from 2020 to 2024. Over time, NDAA's replace 'aerial' with 'anomalous' in the definition of UAP, thereby characterizing the 'transmedium' features of UAPs. These clarifications also reflect developments in defense allocations, government scientific programs, reporting structures, document declassifications, and preservation and publication of bodies of evidence.

Indeed, the argument for transparency coming from both politically Right and Left sides of the House is at times more about finding leverage to crack open the byzantine structure of the US intelligence community and the Department of Defense than it is about developing a public scientific agenda around UAPs. The congressional records featured in the appendix reveal that members of opposed political parties are in agreement that unclear reporting structures and document classifications around UAPs yield yet more disinformation opportunities. This development offers a measure of relief to concerns about government actors utilizing UFO narratives to discredit individuals who have witnessed or experienced anomalous events, or, alternatively, silencing potential whistleblowers through allegations of psychological instability.

The Reddit database, on the other hand, shows important and contrasting differences between the UFO and UAP subreddits with respect to their distinct discourses, in particular around foundational systems of beliefs. The terminology of 'disclosure' presupposes a set of beliefs that relate to trust in the US government and a measure of expectation in patriotic duty and right to democratic deliberation. Religiosity, entertainment, spiritual search, and belief in the paranormal seem to be more integral to UFO spaces than in UAP spaces, and the UAP subreddit seems to place greater emphasis on trust, government, military, and national security discourses. These divergences are also observable in Congressional decisions and polarizations, which are largely informed by securitization as documented in Appendix 1. In that sense, the discourses of ufology provide a malleable space for speculative consideration of the many potential relationships that humans may have with a range of intelligent non-human entities, whereas

UAP discourses provide a space for consideration of the relationship between civilians, military personnel, and their rights to report and obtain explanations of unknown yet apparent phenomena of potential security risk.

Our study validates aspects of Murphy (2024) analysis of Wendt and Duvall (2008) on the implications of UFOs for sovereignty in international relations, an expert domain that prevents the public from talking about UFOs. The government documents that informed our analysis, and the significant effects they have on subreddit discourses, suggest that whistleblower testimonies and official government disclosures offer government authorities a way to talk about UFOs as a national security risk – an acceptable discourse – while members of the public must, through pseudonyms and anonymous posting, take up ontological conversations about UFOs in more informal Reddit threads.

The findings of this study also speak to the institutional and governmental forces at play, including US defense and intelligence communities, aerospace corporations, and private security subcontractors. A notable outcome of the 2020–2024 Congressional and Senate hearings relates to generating protections for whistleblowers, many of whom are former intelligence and security operatives and subcontractors, while also creating structures to systematically declassify documents. In that sense, declassification and disclosure initiatives may test the US balance of values across national security, civil liberties, and intellectual property protections of private partners, in particular with regard to so-called retrieval of UAP craft and associated evidence. Across both the UFO and UAP social media discourses there is a notable gap in matters related to public scientific investigation, such as, for example, through NASA's UAP Task Force, which was restricted to examining then-declassified documents in October 2022 and which dissolved in June 2023, shortly after the release of a broad-strokes public report.

These developments speak to what Vallee (1975) and Wright and Harzan (2019) characterize as a context laden with disinformation: poor intake of reporting; refusal to acknowledge existing reports or to assume responsibility for reporting; harassment of scientists and others; and withholding findings and experiences. Taken together, the staging of disinformation in UFO communities is fundamentally different from disinformation tied to the dysfunction of social media platforms, with the public response to government disclosures of UAP foregrounding the tension between expert figures and UFO counternarratives at the center of difficult-to-explain phenomena (Johnson & Sparks, 2024; Lipińska et al., 2025; Sparks et al., 1998; Sparks & Pellechia, 1997).

## Limitations

There are important limitations to our study. The first relates to the English-language preference in the UFO and UAP subreddits, and how critical events and institutions in the history of US media and defense have strongly influenced UFO and UAP phenomena in the West. Our database is inadequate for ascertaining non-Western discourses and contributions in languages other than English. In addition to that, Pushshift data has known gaps after 2023, and our conclusions are conditional on these constraints. Human coding and qualitative review of subreddits also reveal aspects of narrative truth-telling and collective human sense-making which are beyond the capacity of the LLM, as well as the scope of our research question. Such qualities relate to myth, affect, complex references to religious tropes and mystical experiences (gnosis), and sophisticated use of humor including satire,

folly, prevarication, paradox, light-hearted mockery, and irony. We also note that the cross-correlation analysis performed in this study demonstrates temporal correlation, with relatively modest effect sizes, rather than causation. Lastly, we selected 2018 as the starting point of data collection based on the influential publication of a New York Times article covering government UAP programs accompanied by videos showing UAP encounters by aircraft pilots of the USS Nimitz and USS Theodore Roosevelt. These videos and the newspaper article mark the more recent mobilization towards disclosure, but future research should consider the disclosure movement over longer periods of time and on social media platforms other than Reddit.

## Conclusion

This study tested the hypothesis that government disclosures and public hearings about UAPs, previously termed UFOs, offset conspiratorial thinking and disinformation within disparate but interconnected UFO and UAP subreddit communities. The results show a significant relationship between government disclosures and decreasing posts featuring conspiracy theories – the transparency effect. Disclosures in the UAP subreddit are also associated with rhetorical strategies of critique, analysis, and argumentative debate, and in UFO subreddit, with skeptical debunking. Our results also highlight the rich semantics associated with ‘disclosure’ and ‘transparency,’ both of which warrant further research given contemporary political economies of disinformation and the prospects of a ‘transparency theater’ designed for performing rather actually disclosing.

This study also has important implications for our understanding of how social media interacts with institutional authority, platform affordances, and epistemic order. The transparency effect mapped in this study shows that authoritative, procedurally legitimate disclosures can temporarily reorganize attention, discourse, and trust within highly conspiratorial information environments. This challenges dominant assumptions that social media platforms inevitably amplify distrust, polarization, and epistemic fragmentation. Instead, our findings suggest that social media engagement with credible institutional communication can re-anchor discourse even in communities historically shaped by secrecy and disinformation. The transparency effect also shows that conspiracy-prone spaces are not closed epistemic enclaves but contingent publics responsive to external signals of legitimacy. Reddit, in particular, emerges not merely as a site of rumor circulation or belief reinforcement, but as a deliberative infrastructure capable of hosting analytical, skeptical, and evidence-oriented discussion when catalyzed by exogenous events. This supports a relational model of platform dynamics that challenges simplistic content-moderation approaches to disinformation, as discourse is shown to be shaped less by intrinsic platform pathologies than by the interaction between platform norms, moderation regimes, and institutional information flows.

## Author contributions

CRediT: **Marco Bastos:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation,

Visualization, Writing – original draft, Writing – review & editing; **Marisa Duarte:** Conceptualization, Investigation, Methodology, Project administration, Validation, Writing – original draft, Writing – review & editing.

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