

Frens, Feedback, Control, & Information:

The Foundation & Implications of a Cybernetic Framework for Memetic Communication -

An Examination of “Pepe the Frog” & “Wojak” Online Phenomena

Abstract:

This paper explores the possible role of popular Internet memes, specifically Pepe the Frog (Pepe) & the Wojak (Wojaks), within the context of cybernetics & memetic warfare (MW) in possible information operations (info ops), specifically psychological operations (psyops). By examining the ways these memes are utilized to influence online discourse & behavior, organically or inorganically, this paper provides the basis for an understanding of how cybernetic principles could be applied to not only understand, but shape & control online narratives. Drawing on concepts from cybernetics, the study focuses on the feedback loops, control mechanisms, & information flows that emerge from the use of these specific memes in online communities. This first work will also serve as the basis for the framework & vocabulary used in future explorations.

Keywords: cybernetics, memetic warfare, Pepe the Frog, Wojak, psychological operations, information operations, psyops, info ops, online communities, feedback loops, control mechanisms

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“ Wiener's theory is the message (information), sent & responded to (feedback); the functionality of a machine, organism, or society depends on the quality of messages. Information corrupted by noise prevents homeostasis, or equilibrium. “

Doug Hill

Introduction

The emergence of the Internet & social media has revolutionized communication, altering the ways information is disseminated & consumed. As a result, the study of cybernetics & memetic warfare (MW) has gained increasing relevance, with online communities becoming pivotal battlegrounds for shaping public opinion & influencing behavior [1].

In this context, Internet memes, such as Pepe & Wojak, have arisen as potentially powerful & archetypal tools in information & psychological operations (info ops/psyops) aimed at influencing online discourse. Memes may serve as a vital component of broader info ops, where they can play a central role.

1.1. Overview of cybernetics, memetic warfare, & memes

Cybernetics, pioneered by Norbert Wiener, is an interdisciplinary field that investigates control & communication processes in complex systems, encompassing living

organisms, machines, & social organizations [2].

At its core, cybernetics examines the principles of control, communication, & feedback. Within the realm of memetic warfare, cybernetics offers a framework for comprehending information flows across online networks & the various control mechanisms that can be utilized to manipulate these flows.

MW involves the strategic employment of cultural artifacts, such as memes, to influence the beliefs, opinions, & behaviors of targeted audiences. Memes, as units of cultural transmission, spread rapidly through online communities, often conveying implicit or explicit messages that impact public opinion, emotions, & actions.

By exploiting the power of memes, actors engaged in MW can potentially shape & control narratives in the infosphere, wielding a potent psychological arsenal.

1.2. Pepe & Wojaks as agents of influence

Pepe the Frog & Wojaks are two Internet memes that have achieved widespread popularity & have been adopted by various communities for diverse purposes. Both memes have evolved over time, acquiring new meanings & associations, making them seemingly versatile tools for influencing online discourse.

Pepe the Frog, originating as a comic character, has been appropriated by different online communities as a symbol of their ideologies. The meme has been connected to political movements & controversial issues, rendering it a powerful instrument for shaping public opinion.

Wojaks, from their genesis as a primitive sketch of a human face (watermark) have numerous variations & iterations, each adept at expressing distinct emotions, perspectives, and identities. The adaptability of the Wojaks enables resonance with a wide range of audiences & conveys an extensive array of messages, establishing it as a significant player in the online memetic ecosystem.

1.3. Objective & scope of the study

The aim of this study is to explore the potential role of Pepe & Wojak memes within the context of cybernetics & possible memetic warfare, specifically examining how these memes might be employed to shape & control online narratives.

The analysis will delve into the feedback loops, control mechanisms, & information flows that arise from the use of these memes in online communities.

The study's scope encompasses a primarily anecdotal historical overview of the development & evolution of both memes, an investigation of their emotional appeals & target demographics, & a discussion of the theorized, rumored, or anecdotal tactics & strategies utilized by various actors to deploy these memes as agents of influence.

Supporting evidence for the existence of such operations can be found through Internet search engine queries using terms like, "Glavset", "Internet Research Agency", or, "Cointelpro." However, it is important to note that definitive evidence for the theorized operations as described in this paper may be elusive. Tangential

confirmations, while helpful, will be excluded from this paper to avoid potential distortion of the message through overt politicization or the absence of well-documented operations. & elucidate implications.

Throughout the paper, entities utilizing memetic agents to exert control consciously (usually inorganically) are referred to as various “actors”, sometimes with further clarification. Passive receivers of usually inorganic content within online communities will be mostly referred to as, “online communities” but can also be thought of as, generally, “receivers”.

Cybernetic Principles & Memetic Warfare

The application of cybernetic principles to MW provides a valuable framework for understanding the dynamics of online communities & how they can be manipulated through the use of memes. In this section, we will delve into the cybernetic concepts of feedback loops, control mechanisms, & the adaptation & co-option of memes.

2.1. Feedback loops in online communities

Feedback loops are fundamental to the study of cybernetics, as they represent the processes by which information is fed back into a system to influence its behavior. In online communities, feedback loops play a critical role in determining the success & spread of memes.

As memes circulate within online communities, they generate reactions, including likes, shares, comments, & the creation of new variations. These reactions serve as feedback, signaling to the meme creators & other community members that the meme is resonating with the audience. This feedback, in turn, encourages the further propagation & adaptation of the meme, creating a self-reinforcing cycle.

The presence of positive feedback loops can lead to the rapid amplification of certain memes, while negative feedback loops can suppress or limit their spread. Understanding these feedback dynamics is crucial for those seeking to manipulate online discourse through memetic warfare.

2.2. Control mechanisms & information flow

Control mechanisms are central to cybernetics. They involve the regulation & management of a system's behavior. In the context of memetic warfare, control mechanisms can take many forms, such as the strategic deployment of memes, the manipulation of algorithms that dictate content visibility, or the use of disinformation & counter-narratives.

Additionally, the use of disinformation & counter-narratives can serve as control mechanisms, disrupting the information flow within a community & sowing confusion or doubt. This tactic can be particularly effective when the targeted community is polarized or susceptible to conspiracy theories.

2.3. Adaptation & co-option of memes

The adaptation & co-option of memes would be an essential aspect of memetic warfare, as it enables the repurposing & redirection of existing memes to serve new goals or messages.

Memes, by their very nature, are malleable cultural artifacts that by nature can be easily modified to convey different meanings.

The process of **adaptation** involves the creation of new variations of a meme, which can appeal to different audiences or convey alternate messages. This adaptability allows memes to remain relevant & effective even as the online discourse evolves.

Co-option refers to the process by which a meme is appropriated by a new group or for a different purpose than originally intended. Through co-option, various actors engaged in MW can, “hijack” the popularity & emotional resonance of existing memes to promote their own agendas or undermine opposing narratives.

Understanding the potential dynamics of adaptation & co-option is essential for those seeking to wield memes as tools of influence in online communities, as it provides insight into the strategies & tactics that can be employed to shape & control the memetic landscape.

Pepe the Frog: Origins, Evolution, & Cybernetic Analysis

The first example under study, Pepe the Frog, or Pepe/Apu, has become a prominent symbol in online discourse, with its origins, evolution, & associations making it a powerful tool for shaping public opinion.

In this section, we will explore the emergence & transformation of Pepe, its emotional appeals & target demographics, & the cybernetic mechanisms & control strategies that have been employed to manipulate its influence.

3.1. Emergence & transformation of Pepe the Frog

Pepe the Frog originated as a character in the comic series, "Boy's Club" by artist Matt Furie, first appearing in 2005 [3]. The character gained popularity on Internet forums such as 4chan, where users began sharing the image & creating their own variations. Over time, Pepe evolved from a simple comic character into a versatile meme, capable of expressing a wide range of emotions & messages.

As the meme gained widespread exposure, it was co-opted by various online

communities, who adopted Pepe as a symbol of their ideologies. This transformation led to the meme becoming associated with political movements, controversial figures, & contentious issues, imbuing it with a potent capacity to influence public opinion.

3.2. Emotional appeals & target demographics

Pepe the Frog's emotional appeal could be said to stem from its adaptability & ability to convey a wide range of emotions, making it relatable to diverse audiences. The meme's simplicity & recognizable format enable it to be easily modified, allowing it to express different perspectives & resonate with various target demographics.

Pepe's co-option by wide-ranging online groups has led to its association with some provocative & controversial themes, amplifying its emotional impact & polarizing its audience. This has allowed the meme to serve as a rallying point for some individuals, while alienating others, making it an effective tool for shaping discourse & generating strong reactions.

3.3. Cybernetic mechanisms & control strategies

From a cybernetic perspective, the spread & influence of Pepe can be understood through feedback loops, control mechanisms, & information flow. The meme's widespread popularity & emotional resonance create positive feedback loops, encouraging its propagation & adaptation across online communities.

Control strategies employed in the context of Pepe include the manipulation of algorithms to boost the meme's visibility, the strategic deployment of the meme to advance specific agendas, & the use of counter-narratives to undermine its associations with target ideologies or groups.

By understanding the cybernetic mechanisms underlying the influence of Pepe the Frog, actors engaged in MW can develop strategies for leveraging the meme's power to shape & control online discourse. This understanding can also inform efforts to mitigate the negative impacts of the meme or redirect its associations towards more constructive ends.

Wojaks: Origins, Evolution, & Cybernetic Analysis

Wojak, also known as the, "Feels Guy," is another prominent meme that has played a significant role in shaping online discourse. In this section, we will explore the emergence & transformation of Wojaks, their emotional appeals & target demographics, & the cybernetic mechanisms & control strategies employed to manipulate the meme's influence.

4.1. Emergence & transformation of Wojak

Wojaks originated on the German imageboard Krautchan in the early 2010s as a simple, black-&-white drawing of a human's face expressing sadness [4]. The image quickly gained popularity on various Internet forums, including 4chan, where users began sharing & creating their own variations. Over time, Feels Guy evolved into a versatile meme template that can be adapted to convey a wide range of emotions, messages, & themes, referred to generally as, "Wojaks". Exemplified by the, "Doomer", "Bloomer", &, "Boomer" basic bitmap faces with carefully selected accessories and characteristics each

portraying or giving the impression of a stereotypical identity of a depressed & isolated individual, a happy & flourishing individual, & an individual of the, “Baby Boomer” generation, respectively.

Similar to Pepe the Frog, Wojaks have been co-opted by different online communities, each using the meme to express their own individual &/or shared perspectives, identities, & sentiments. As a result, Wojaks have become associated with various movements & ideologies, further enhancing its capacity to influence public opinion.

4.2. Emotional appeals & target demographics

The emotional appeal of Wojaks lies in its ability to convey relatable human emotions & experiences, making it resonate with diverse audiences. The meme's simplicity & recognizable format enable it to be easily modified, allowing it to express different perspectives & connect with various target demographics.

As the meme has been adopted by different online communities, its emotional impact has expanded to encompass a broad spectrum of emotions, from sadness &

despair to anger & frustration. This versatility allows Wojaks to effectively tap into the emotions of the receiver & thereby generate strong reactions or references to self- or group-identity, making it a powerful tool for shaping online discourse.

4.3. Cybernetic mechanisms & control strategies

The potential influence of Wojaks in the online sphere can be understood through the lens of cybernetic principles, including feedback loops, control mechanisms, & information flow. The meme's popularity & emotional resonance create positive feedback loops, encouraging its propagation & adaptation across online communities.

Control strategies employed by various actors in the context of Wojaks could include the manipulation or utilization of algorithms to boost/leverage the meme's visibility, the strategic deployment of the meme to advance specific agendas, & the use of counter-narratives to undermine its associations with or the image of the receiver.

By understanding cybernetic mechanisms we can develop the vocabulary for better studying the underlying memetic influence

of Wojaks. Frameworks like this also serve to inform efforts to mitigate the negative impacts of the meme or redirect its associations towards more constructive ends. This appears necessary, as various actors engaged in MW can likewise develop strategies for leveraging the meme's power to shape & control online discourse.

Implications for Psychological Operations in Online Communities

The digital age has *a-priori* seen a significant shift in the methods used by various actors to shape public opinion & control narratives.

In this section, we will discuss the possible role of various actors (i.e. agents of change, humans with agendas, *etc.*) in online communities, the narratives & tactics that could be employed to shape online discourse, & the possible use of false-flag operations & redirection strategies.

5.1. State, non-state, & lone actors.

State actors, non-state actors, & lone or relatively unaffiliated/unfunded actors are doubtless increasingly recognizing the

power of online communities as a means of influencing public opinion & shaping political narratives.

These various actors could theoretically leverage the Internet's reach & anonymity to conduct info ops that can sway public sentiment, manipulate discourse, & advance their strategic goals.

Online platforms offer a fertile ground for these actors to blend in with ordinary users, share content, & push narratives that serve their interests. Social media platforms, forums, & other online communities are likely to be targeted due to their potential to amplify messages & reach large audiences. Existing exposure-based ad-driven web economics revolve around this concept of amplification, of any idea, often unknowingly including inorganic or non factual narratives.

5.2. Narratives & tactics in shaping online discourse

Various actors could employ a variety of narratives & tactics to influence online discourse. A short & very incomplete list:

Disinformation: Spreading false or misleading information to create confusion, discord, or to discredit opposing viewpoints.

Propaganda: Promoting a specific narrative or ideology to advance a particular agenda, often by appealing to emotions or biases.

Astroturfing: Creating the illusion of grassroots support for a specific cause or narrative by using fake accounts or bots to amplify messages.

Trolling & harassment: Using aggressive or provocative tactics to incite negative reactions, derail discussions, or intimidate opponents.

These tactics often organically involve the use of memes & other viral content, which can easily be shared, adapted, & repurposed to serve the interests of state, non-state, & lone actors.

5.3. False-flag operations & redirection strategies

A further example, so-called, “false-flag operations”, or generally unattributable/deniable redirection strategies, are more advanced & deceptive

tactics that could be used by various actors to manipulate online discourse. These methods involve:

False-flag operations: The impersonation of members of opposing or target groups for the purposes of creating confusion/chaos, provoking internal conflict, or discrediting the group in the eyes of the public.

This can be done easily by creating fake accounts or using stolen identities & botnets to post content that appears to be from the targeted group but serves the interests of the inauthentic actor.

Redirection strategies: The, “steering” of online discourse towards topics more convenient to the actors; achieved by introducing new narratives, memes, or themes that distract from the original focus or message.

Redirection can help dilute the impact of potentially damaging or controversial content, while also directing attention to causes that the actor deems more desirable.

By employing these tactics, various actors can exert considerable influence over online communities, shaping discourse & public

opinion in ways that advance their strategic objectives.

Conclusion

The study of MW & the use of memes as agents of influence in online communities is an emerging field that has significant implications for our understanding of cybernetics, information warfare, w/r/t/ info ops/psyops. In this concluding section, we will discuss the implications of cybernetic analysis in memetic warfare, future directions & challenges, & the ethical considerations & responsible use of memes in online communication.

6.1. Implications of cybernetic analysis in memetic warfare

Applying a cybernetic lens to the study of MW provides valuable insights into the underlying mechanisms that drive the spread, evolution, & influence of memes in online communities. By understanding the feedback loops, control mechanisms, & information flow that govern the dynamics of memetic warfare, researchers, policymakers, & other stakeholders can develop more effective strategies for countering disinformation, propaganda, &

other forms of manipulation in the digital sphere.

Moreover, the cybernetic analysis of MW highlights the need for a multidisciplinary approach to studying this phenomenon, drawing on fields such as psychology, sociology, & communication, as well as computer science & data analytics.

6.2. Future directions & challenges

As the digital landscape continues to evolve, so too will the nature of MW & the tactics employed by various actors & other malicious agents. Future research in this area will need to keep pace with these changes, exploring new platforms, technologies, & methods of communication that may be exploited for the purposes of manipulation & influence.

Additionally, researchers must grapple with the challenges of measuring & quantifying the impact of memetic warfare, as well as developing effective countermeasures & tools to protect against the manipulation of online discourse.

6.3. Ethical considerations & responsible use of memes in online communication

Any study of MW raises superficially absurd but ultimately important ethical questions about the responsible use of memes & the potential for their misuse as tools of manipulation & control.

It is essential for individuals & organizations to be aware of the potential risks & unintended consequences associated with the sharing & creation of memes, particularly when they may be co-opted by malicious actors or used to promote harmful narratives.

In this context, promoting digital literacy, critical thinking, & awareness of the tactics that may be employed in MW is crucial to fostering a more informed & responsible digital citizenry.

By cultivating a better understanding of the power & potential dangers of memes, we can work towards a more ethical & transparent online environment, where open & constructive dialogue can thrive.

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