



## VISUAL SEMIOTIC ANALYSIS OF PATRIOTIC AI GENERATED MULTIMEDIA CONTENT ON THE OPERATION SINDOOR FOUND ON INDIAN SOCIAL MEDIA

**Ms. Nikethana N.<sup>1</sup> and Dr. Deepa Viswam<sup>2</sup>**

**<sup>1</sup>Doctoral Scholar, Department Of Visual Communication,  
Mother Teresa Women's University, Chennai.**

**<sup>2</sup>HOD & Associate Professor, Department Of Visual Communication,  
Mother Teresa Women's University, Chennai.**

### ABSTRACT:

*The paper reviews the patriotic multimedia content (images and videos) created using Generative AI, based on 'Operation Sindoor' by individual creators, as YouTube Shorts and Instagram Reels, which depicted the brutal terror attack against civilians and tourists based on religious faith in Pahalgam, Jammu And Kashmir, and followed by the air military operation conducted by India through Operation Sindoor. So the paper adopts visual semiotic analysis by adopting Charles Sanders Peirce's Triadic Theory to analyse the patriotic multimedia content created using Generative AI chatbots, found on Indian social media. In addition, the researcher will also generate images based on Operation Sindoor using ChatGPT's multimedia generation model-Sora. Thus it was concluded that AI chatbots, with the correct prompts, have the ability to analyse present situations and create figurative and to some extent specific multimedia content on the same and provide accurate message to the interpreter, despite the content looking unrealistic.*



**KEYWORDS:** *The Operation Sindoor, Patriotic Content, Generative AI, Indian Social Media, India, Pakistan.*

### INTRODUCTION

#### History Of Artificial Intelligence

Artificial Intelligence or AI, is a form of technology wherein computers have the ability and capacity to enable simulation, learning, finding solutions, problem solving, thinking ability, and so on. The inception of Artificial Intelligence began in the year 1956, when John McCarthy, a professor at Dartmouth College first coined that term during a workshop, followed by the development of machine learning (enables computers to learn from historical data) and deep learning (development of machine learning models to imitate human brain thinking capacity).

#### Nature, And Drawbacks Of Generative AI

Generative AI, part of Artificial Intelligence, is equipped with the ability to create, edit, and modify any multimedia content (audio, video, and visual imagery), and computer codes, which was

trained using already available multiple and diverse amounts of data, which in turn produces the desired and original multimedia content based on the user's prompt using Generative Adversarial Networks (GAN) and Variational Autoencoders (VAE). They are mostly disseminated to the users in the form of chatbots for getting diverse content based on the users' prompt and for promoting dialogue between the chatbot and the user for further collaborations. Some notable examples of Generative AI chatbots available for commercial use are ChatGPT, Gemini, Perplexity, DeepSeek, and many more, which has been utilised by individuals and corporates alike for generating content for both entertainment and educational purposes, like memes, videos, news features, and so on. Though these chatbots have the ability to create a variety of original content, a user cannot claim the AI generated content as their own, as its owner is the creator of such AI tools, and passing it off as a user's content without citing or attributing the AI chatbot owner (For example, OpenAI's ChatGPT) constitutes as plagiarism and copyright infringement. Another major drawback of Gen AI content is that it may reflect biases when asked certain questions related to politics, or religion, as it was trained on human data, and cannot be impartial in answering such questions.

### Operation Sindoor And Its Subsequent Events Unfolding Between The Two Countries

Operation Sindoor, (named after the traditional red or maroon powder worn by married Hindu Indian women, which the name was suggested by Prime Minister Modi himself) a military counterattack was launched by the Indian Air Force, on 9 terrorist camps situated in Pakistan and Pakistan Occupied Kashmir (POK) at the wee hours of May 7 2025, as a retaliation for the Pahalgam terror attack orchestrated by The Resistance Front (TRF) by murdering 26 innocent tourists for their religious faith on April 22 2025. The terror attack was taken seriously by the Indian Government which took several measures like suspension of the 64 year old Indus Water Treaty that provides water to Pakistan for agriculture, total ban of many Pakistani social media handles, entertainment content, closure of borders, and visa cancellation of Pakistanis. After the execution of Operation Sindoor by India only on terror camps in Pakistan, and the subsequent attack by Pakistan on Indian airbases and infrastructure, a ceasefire was announced between the two countries after four days of war activities, when the Director General of Military Operations (DGMO) of Pakistan initiated the call on May 10, 2025, that was taken credit by the U.S. President Donald Trump where he claimed via a post on X (previously Twitter) that he had brokered peace between the two countries, despite India's refusal on the same.

### Patriotic Generative AI Content On Operation Sindoor Found On Indian Social Media

In addition to multiple news reports on the raging conflict and the ongoing tensions between two countries in the following days, several hyperrealistic patriotic appreciation posts, reels, and memes regarding Operation Sindoor were found on Indian social media handles like YouTube, Instagram, and Facebook, which was made using Generative AI. to look real and life-like, by individual creators as a form of content for their respective channels, which garnered reasonable number of views and interactions (liking, sharing, commenting, etc).

In this study, the researcher also tests the viability of creating such hyperrealistic patriotic content using ChatGPT's multimedia generation model-Sora, by typing in the necessary prompts. Though the model can be used for video generation of the created image as well, it is not done by the researcher as it is a paid version, and they want to test only the bot's capability of creating multimedia content.

## REVIEW OF LITERATURE

### Development Of Triadic Theory By Charles Sanders Peirce In Semiotics

As mentioned by **Daniel Chandler (2007)** in his book on **Semiotics-The Basics**, Charles Sanders Peirce, one of the contributors to Semiotics, put forth that there are three elements to derive meaning (i.e.) sign (Representamen), Object, and Interpretant, where sign refers to any visual image or

sign, object meaning what the sign refers to, and lastly, interpretant of how the interpreter makes sense of the sign.

### Performance Of Generative AI Chatbots In Varied Image Generation Like Political Memes Based On Users' Prompts

**Gaurang Bansal et al. (2024)** compared the performance, role and its limitations of some Generative AI models and chatbots like Dall-E 2, Midjourney, Imagen, Jasper, NightCafe, and so on, while assessing its capability for image synthesis, which was later concluded that the models should consider multiculturalism, user preferences, combating of deepfakes and misinformation, in the future. **H.C.H. Chang et al. (2024)** analysed the generation of political memes related to the 2024 USA Presidential Elections created using Generative AI, who gave the term 'generative memetic weaponisation', based on the idea that memes will be created by AI through customisation. **Hernandez I.P. and Lee N.T. (2024)** investigated the rise in AI generated memes in the political arena, by investigating its usage in the 2024 US Presidential Elections, who gave some suggestions that there must be increased guardrails, widespread awareness and literacy about AI, and legislative reconsideration in order to combat AI-driven misinformation. **Astri Dwi Andriani (2025)** reviewed the future of digital content generated using AI and reflected upon its uses, opportunities and threats in fields of marketing, journalism, and education, while emphasizing transparency, cultural sensitivity, and brand reputation for AI tools integration.

### Pahalgam Terror Attack, Operation Sindoor And The Aftermath

**S. Ramachandran (2025)** investigated the history of cross-border terrorism of India and Pakistan right from the year 1947, the rise of anti-India insurgency during the 1990s, and also reviewed the rise of military usage against Pakistani terror groups under the BJP Government starting from 2016 Uri Surgical Strike to Operation Sindoor conducted in the year 2025. **BDA Pathak (2025)** reviewed whether there was a unified theatre command (coordination) of all three armed forces-army, navy, and air force under an individual commander during Operation Sindoor, which he later concluded that there was a unified command which was displayed during the fight.

### Analysis Of Relationship Between Two Countries In Asia-India & Pakistan Through The Dissemination Of Internet Memes On Social Media

**Hira Shoukat et al. (2025)** analysed the internet memes collected from TikTok, Instagram, Pinterest, and some generated from ChatGPT by employing Jan Bloomaert's Sociolinguistics of Globalization Framework while employing qualitative discourse analysis for analysing a plethora of situations like hybrid language, global meme localised, pop culture, economical, and political including the tumultuous relationship between India and Pakistan, in addition to Twitter (now X) war between the two countries' users.

### Theoretical Framework

The research paper takes into account the Triadic Theory, developed by Charles Saunders Peirce, who defines that semiology as a triadic process wherein an object (icon or character) influences a sign (emotion) and is converted to interpretation of the event or happening. In other words, sign represents any physical form-word, or image, object refers to the concept that the sign represents, and interpretant refers to the mental image that develops in the mind of the interpreter. However, the sign has three elements-qualisign, sinsign, and legisign, where legisign is selected for analysing visual images as the selected data for interpretation contains non-verbal communication.

## RESEARCH METHODOLOGY

The research paper has adopted the qualitative research methodology, and has taken Visual Semiotic Analysis for consideration. The researcher has also gathered primary data by generating hyperrealistic AI images related to Operation Sindoor, using ChatGPT's multimedia generation tool-Sora. Also, the researcher has collected secondary data by browsing through social media platforms like Instagram and YouTube for such posts and will analyse on the same.

## Research Gap

From reviewing the available literature from both national and international publications and journals, it was concluded that though some papers highlighted the image and multimedia generation feature of Gen AI models like ChatGPT, Midjourney, etc, not many papers were found on the dissemination of such AI content in form of shorts or reels, highlighting the ongoing tensions between India and Pakistan, and subsequent events like suspension of Indus Water Treaty, Operation Sindoor, and so on.

## Limitations

The researcher has analysed only the AI generated content from Indian users and has not analysed content created by any user from Pakistan on Operation Sindoor and on ongoing events unfolding and depiction of tumultuous relationship existing between the two countries. Also, some depiction of subsequent events surrounding and the aftermath of Operation Sindoor like suspension of Indus Water Treaty by India and American President Donald Trump's claim of brokering ceasefire between India and Pakistan as AI memes circulated in the form of reels and YouTube Shorts have not been considered for this study.

## Research Objectives

1. To review the depiction of Operation Sindoor through the creation and dissemination of hyperrealistic AI content created by individual creators.
2. To review the patriotic message found in such AI content.
3. To investigate the hyperrealistic multimedia generation capability of a popular AI chatbot-ChatGPT's Sora, based on Operation Sindoor.

## Analysis And Discussion

### Multimedia Content On Operation Sindoor



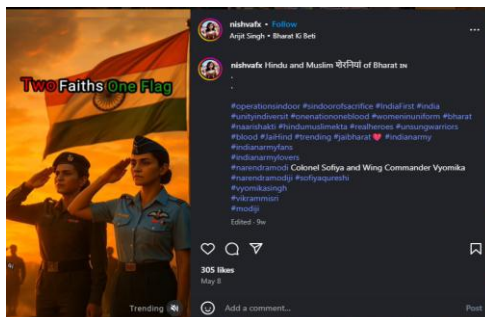
(P.C. theviralvisionary ai)

**Sign (Legisign)**-Feeling sadness, missile flying towards border with the word Operation Sindoor, where the 'o' is replaced with a cup of sindoor (red vermillion)

**Object (Icon)**-Survivor of the terror attack and Indian Prime Minister, Shri. Narendra Modi

**Interpretant** -The picture describes that the brutal terror attack has saddened the country and to deliver justice, Operation Sindoor (air attack) on terror camps was initiated by the Indian Government.

**Analysis:** The reel depicts the word-Operation Sindoor in a creative typography of the word 'o' being replaced with the cup of red sindoor, along with a flying missile, and sadness, (droopy posture, lowered eyes, and profound sorrow )featured on the objects' features, which creates a mental image on the interpreter's minds that the government has initiated strong military action (airline attack) as Operation Sindoor to uphold justice.



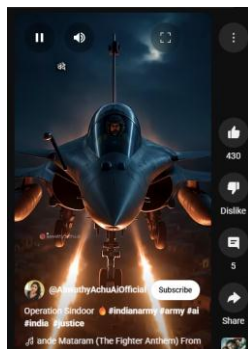
(P.C. nishvafx)

**Sign (Legisign):** Feeling patriotic, typography with Indian flag colours with the sentence-Two faiths one flag and Indian flag flying in background.

**Object (Icon):** Two women officers from Indian Military Forces, Col. Sofia Qureshi from the Army and Wg Cdr. Vyomika Singh, from the Air Force.

**Interpretant:** The picture shows that two women officers from different religions-Hindu and Muslim, have come together to fight for the nation and are saluting the Indian flag with patriotism and sense of duty.

**Analysis:** The reel depicts two real-life women officers-Col. Sofia Qureshi, and Wg Cdr. Vyomika Singh, following different faiths, saluting the Indian flag in a patriotic manner, which creates a mental image in the minds of the interpreter about the press briefing conducted by them, which was seen as a message promoting patriotism, justice (for the widows who lost their husbands), gender equality, and religious harmony.



**(P.C. AswathyAchu AI official)**

**Sign (Legisign):** Feeling duty-bound and ready for combat

**Object (Icon):** An Air Force Officer from India firing missiles on the enemy target

**Interpretant:** The picture showcases that the Air Force soldier from India is firing missiles on the terrorist camps found in the neighbouring country.

**Analysis:** The YouTube Short showcases a duty-bound Indian Air Force soldier firing missiles at selected targets which creates a mental image in the minds of the interpreter that Operation Sindoor



was an air military operation conducted by the Indian Air Force by targeting the terrorist camps situated in POK and Pakistan, as a retaliation for the brutal Pahalgam Attack.

### Hyperrealistic image based on Operation Sindoor created using ChatGPT's Sora by the researcher



(P.C. Nikethana. N)

**Sign (Legisign):** Feeling terrified and a duty-bound Indian soldier with the words-Operation Sindoor typed on the soldier's uniform.

**Object (Icon):** A terrified Hindu Indian woman and an Indian soldier rescuing her to safety.

**Interpretant:** The picture showcases a terrified married Hindu Indian woman with her sindoor being washed away and being rescued by an Indian army officer, depicts that married women became widows due to the terror attack inflicted upon their husbands and the Indian Army has delivered justice to them by conducting Operation Sindoor.

**Analysis:** It forms an image in the interpreter's minds that women in Pahalgam who became widowed due to the terror attack have been delivered justice by the Indian Armed Forces.

### CONCLUSION AND RECOMMENDATIONS

Along with these AI channels found on social media, there are many independent channels or creators using AI for different forms of storytelling in various arenas like political, entertainment, cutesy, and many more, which were created using specific prompts to deliver high results. The advent of Pahalgam terror attack and Operation Sindoor showcased a plethora of patriotic content and messages made by individual creators using AI for creative storytelling which was possible due to the multimedia generational capabilities of the AI tool and also the specific prompt given by the creator. To test it, the researcher used one of the popular AI chatbot-ChatGPT's Sora and gave a prompt on Operation Sindoor-3D hyperrealistic image of Operation Sindoor and it showcased a terrified middle-aged Hindu Indian woman with a washed-away sindoor on her hairline, saved by an Indian soldier bearing the title of the operation. Though it was symbolic, it did not provide accurate representation as the prompt given was vague, as it was mentioned only Operation Sindoor. Also, other creators' depiction of real-life people looked synthetic, and created an uncanny valley effect. That made them unnatural. But unlike other creators, the researcher was not able to create a video out of it as making a video comes under the paid version of the AI tool.

Therefore to minimize such uncanny value effect, vast amounts of unbiased and distinct datasets must be used for training such models, and they should also be regulated to prevent any deepfake incidents, compromising any individual's identity and livelihood.

Thus it was concluded that AI chatbots, with the correct prompts, have the ability to analyse present situations and create figurative and to some extent specific multimedia content on the same and provide accurate message to the interpreter, despite the content looking unrealistic.

---

**REFERENCES AND BIBLIOGRAPHY**

1. Chandler, D. (2004). *Semiotics: The Basics* (2nd ed.). Routledge.  
<https://doi.org/10.4324/9780203014936>
2. Tandon, S., Singh, N. V., & Tripathi, D. (2022). Like, Share and Comment: Gen-Z and Political Memes on Social Media. *Special Education*, 1(43).
3. Lu, Y., Guo, C., Dou, Y., Dai, X., & Wang, F. Y. (2023). Could ChatGPT imagine: Content control for artistic painting generation via large language models. *Journal of Intelligent & Robotic Systems*, 109(2), 39.
4. Cao, Y., Li, S., Liu, Y., Yan, Z., Dai, Y., Yu, P. S., & Sun, L. (2023). A comprehensive survey of ai-generated content (aigc): A history of generative ai from gan to chatgpt. *arXiv preprint arXiv:2303.04226*.
5. Bansal, G., Nawal, A., Chamola, V., & Herencsar, N. (2024). Revolutionizing visuals: the role of generative AI in modern image generation. *ACM Transactions on Multimedia Computing, Communications and Applications*, 20(11), 1-22.
6. Chang, H. C. H., Shaman, B., Chen, Y. C., Zha, M., Noh, S., Wei, C., ... & Magee, M. (2024). Generative Memes: AI Mediates Political Memes in the 2024 USA Presidential Election. *arXiv preprint arXiv:2411.00934*.
7. Hernández, I. P., & Lee, N. T. (2024). AI memes: Election disinformation manifested through satire.
8. Shoukat, H., Hussain, Z., & Murtaza, K. (2025). When Words Fail, Memes Speak: The Weird and Wonderful Ways of Expressing Emotions. *Annual Methodological Archive Research Review*, 3(5), 1-25.
9. Andriani, A. D. (2025). The Future of Digital Content: AI-Generated Texts, Images, Videos, and Real-Time Production. In *Impacts of AI-Generated Content on Brand Reputation* (pp. 149-176). IGI Global Scientific Publishing.
10. Ramachandran, S. (2025). Operation Sindoor. *Counter Terrorist Trends and Analyses*, 17(4), 8-15.
11. Pathak, B. D. A. Op Sindoor: Is India Moving Towards Unified Theatre Command.
12. <https://www.instagram.com/reel/DJWJ19JyrKS/>
13. <https://www.instagram.com/reel/DJWR4fyz7eM/>
14. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2129453>
15. <https://timesofindia.indiatimes.com/topic/operation-sindoor>
16. <https://www.instagram.com/reel/DJWM2ywyxSY/?hl=en>
17. <https://www.ndtv.com/india-news/at-indias-briefing-on-operation-sindoor-2-women-officers-wing-commander-vyomika-singh-and-colonel-sofiya-qaureshi-take-lead-8351354>
18. <https://government.economictimes.indiatimes.com/news/ai-video-recreates-pahalgam-terror-attack-operation-sindoor-screened-at-srinagars-lal-chowk/121201086>
19. <https://www.thehindu.com/news/national/as-pressure-mounts-trf-denies-involvement-in-pahalgam-attack/article69495143.ece>
20. <https://www.moneycontrol.com/world/us-declares-the-resistance-front-a-global-terror-group-after-pahalgam-attack-article-13292531.html>
21. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2129453>