Vol 14, Issue 6, (2024) E-ISSN: 2222-6990

The Integration of Freytag's Pyramid into AI-Generated Art Prompts

Siti Hajar Abd Aziz¹, Ahmad Nur Azam Ahmad Ridzuan², Muhamad Hanapi Khamis³, Zuliani Mohd Azni⁴, Mohd Sufiean Hassan⁵, Nur Shazana Abdul Rani⁶

^{1,4,5,6}Faculty of Communication and Media Studies, Universiti Teknologi MARA Melaka,
 ²Faculty of Computer and Mathematical Science, Universiti Teknologi MARA Perak, ³Faculty of Communication and Media Studies, Universiti Teknologi MARA Negeri Sembilan Corresponding Author Email: shajar_aziz@uitm.edu.my

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v14-i6/20143 DOI:10.6007

DOI:10.6007/IJARBSS/v14-i6/20143

Published Date: 01 July 2024

Abstract

This paper aimed to explore the use of Freytag's Pyramid narrative elements in storytelling prompts for artificial intelligence (AI) enhanced art generation known as Leonardo AI. It examines how narrative prompts have been used to enhance the quality of AI-generated art and create more engaging and meaningful art. It would focus on the Freytag's pyramid, a narrative structure that divides a story into five parts, exposition, rising action, climax, falling action and denouement or resolution. This paper would introduce a Freytag's Pyramid Rubric as an attempt to analyse AI-generated art prompts narratives through a limited art generation sampling and demonstration. The study holds significance due to its potential to improve the calibre of AI-generated artwork and its implications for developing such artwork that is more captivating, meaningful, and of superior quality.

Introduction

Art has always been a means of expressing ideas, feelings, and tales. Artificial Intelligencegenerated art is a fascinating field where machines produce visual or audio content in the digital age. It is the result of the convergence of art and technology. According to Mazzone and Elgammal (2019), researching the creative processes and methodologies used by AI in the creation of art is about understanding this process and producing creative outcomes that allow the technology to synthesise knowledge from many art forms to create new works of art.

Boden (1998) noted that while creativity is a crucial component of human intellect and a challenge for artificial intelligence, AI technologies can generate new ideas through the following processes: creating original combinations of well-known concepts; exploring the

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES

Vol. 14, No. 6, 2024, E-ISSN: 2222-6990 © 2024

possibilities of conceptual spaces; and putting transformations into place that make it easier to generate concepts that were previously unthinkable.

The creation and consumption of art has been transformed by artificial intelligence (AI) platforms, which produce visually appealing and inventive art for both ordinary users and creative artists. One such website that allows the general public to use it for free as well as those who pay to access its premium features is Leonardo AI, which allows users to convert words to images with the help of computers, machine learning, strong graphics cards, and an unimaginably large amount of data, as noted by (Azza, 2023).

According to Waris (2023), Leonardo AI creates intelligent systems for decision-making, automation, and problem-solving by utilising sophisticated algorithms, deep learning techniques, and computer capacity. This ensures that the systems' solutions remain at the forefront of technological breakthroughs. The method whereby a user writes a request, or instructions, in natural language, enabling an image to be generated or produced, is called prompt engineering, process of repeatedly creating prompts to create and enhance images (Oppenlaender et al., 2023). It is the method whereby a user writes a request, or instructions, in natural language to be generated or produced.

Adding narrative suggestions to AI-generated art is one method to raise its quality. Short stories serve as context and creative inspiration for art projects. These are known as storytelling prompts. They can be utilised to direct AI in producing more interesting and significant art. Therefore, the purpose of this research was to explore how Freytag's Pyramid, a traditional narrative framework, are being incorporated into AI-generated art prompts. In order to produce meaningful digital art using artificial intelligence (AI) platforms, it seeks to comprehend how these prompts might be created to correspond with the narrative parts of Freytag's Pyramid, including exposition, rising action, climax, falling action, and denouement. AI prompts are a source of inspiration for artists, encouraging the creation of fresh ideas that can help with the creation of brand-new, original works. Prompts for storytelling that vary in length from short summaries to long stories (see the "Ultimate List of AI Prompts for All AI Generators"). Different questions might inspire different genres, subjects, and painting styles. For instance, a prompt about "a mystical forest at dusk" might inspire a piece of art with a fantasy theme.

Researchers have explored the potential of AI systems to respond to narrative cues in the generation of visual art. Oppenlaender et al (2023) investigated the creative skill of prompt engineering, revealing the capacity of narrative prompts to shape AI-generated art. The studies suggested that prompt engineering is a learned skill that requires expertise and practice, as participants' prompts often missing the specific vocabulary needed to apply a certain style to the generated images.

Freytag's Pyramid Application to Ai Art Generation

It is crucial to first establish the fundamentals of narrative structure to comprehend the significance of narrative prompts in AI art generation. Freytag's Pyramid is a classic model for comprehending dramatic structure. Exposition, rising action, climax, falling action, and resolution are its five main components as introduced by (Freytag, 1863). This pyramid offers a structure for structuring stories, directing the story's progression from the beginning to the end.

Classically, the Freytag Pyramid is used as a framework to study narrative structure in film and literature Harun et al (2013) or in other creative areas such as narrative development in animation content Tsai-Yun et al (2013) and video advertisement (Ye et al., 2019). Freytag

Pyramid narrative principles too were studies by Yang et al (2022) to look at a design space of story patterns, data flows, and visual messaging that shows how to achieve story goals, organise data facts, and choose visual design methods by telling stories. Subsequently, Yang work too led to studies in medical storytelling narrative visualization, citing the Freytag Pyramid as a model for structuring these stories (Mittenentzwei et al., 2023).

Moloney (2018) highlighted the unique narrative qualities inherent in still photographs and their potential application in transmedia storytelling. He illustrated this point through examples and potentially drew on Freytag's narrative structure as a foundation for analysis, particularly within the realm of transmedia studies. On a related note, Ciğerci and Yıldırım (2023) delved into the utilization of narrative elements to captivate pre-service teachers in the realm of digital storytelling. This showcases the versatility of storytelling concepts, indicating their ability to be employed in diverse and creative scenarios.



A five-part pattern of dramatic structure that describes the stages of a story.

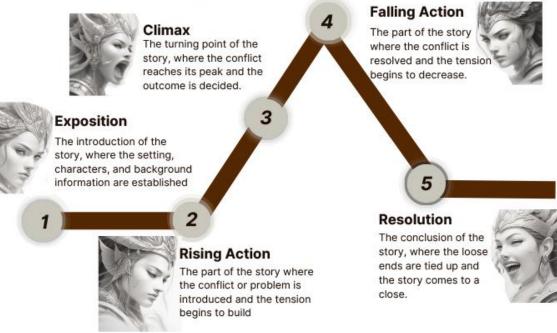


Figure 1 : The Freytag's Pyramid structure

According to Glach (2021), the storytelling process has the power to alter how narratives are created and disseminated. The application of narrative structure can be used to research the field of AI art generation. Freytag's Pyramid can be used as a map that emphasises dramatic structure, or the order in which a story's plot unfolds. It is also possible to combine elements of Freytag's pyramid into a single artwork, where an accomplished human artist can frequently convey the past, the conflict, and the resolution of a story with a single image. Thus, by emphasising compositional aspects, symbolism, and character emotions, an AI may be educated to do the same, as mentioned by (Biswas, 2016).

Methodology

This study is conducted using both quantitative and qualitative methods, as pointed out by Goring et al (2020), that research on prompting can be conducted using both approaches. In their study, users are asked to rate the output based on how much they liked it, how realistic it looked, and how well it matched a written description or the prompts. Meanwhile, an exploratory study by Kulkarni et al (2023); Oppenlaender et al (2023) supports the idea of employing a qualitative method to examine art prompts.

The researcher acts as an instrument to better understand the aspects of the Freytag Pyramid by taking a major role in data collecting and frequently interacting directly with the data as suggested by Collin and Stockton (2022), Therefore, to further understand the elements of Freytag Pyramid, the researcher act as an instrument, as pointed by Collins and Stockton (2022) where researcher plays a central role in data collection, often interacting directly with the data. The researcher's background, beliefs, and experiences influence how data is collected, understood, and interpreted. Figure 2 is a summary of the methodology used in this study:

this study:	-
Sampling	This study is conducted using both quantitative and qualitative methods,
Strategy	a method inspired from a study by Goring, S., Ramachandra Rao, R.R., Merten, R., and Raake, A. (2020)
Sample Size	For a good representation, which will help reach the point of data saturation, a total of 20 AI-generated art pieces were selected.
Population	The population consists of art pieces automatically generated by the Leonardo AI focusing on prompts that have narrative or storytelling as a property.
Sampling Technique	Purposive sampling was used to choose artworks representing different levels of Freytag's Pyramid to ensure diversity in narrative complexity and themes. Collected AI-generated art prompts from the Leonardo AI Platform over a defined period, November 1 - 14, 2023. The art prompts were designed to align with the stages of Freytag's Pyramid: Exposition, Rising Action, Climax, Falling Action, and Denouement.
Development	Based on pre-existing narrative analysis frameworks (Freytag's Plot Elements Pyramid, RCampus) and Smith & Monforte (2020), some of the work was adapted in developing Freytag's Pyramid Rubric. From the rubric, it presents criteria to assess at each stage of the narrative scale with a grade between 1 (Low Alignment) and 5 (High Alignment).
Qualitative Analysis	The Al-generated art pieces are analysed using the Freytag's Pyramid Rubric. The narrative alignment scores of the art prompts were graded in terms of how these reached the levels through the five stages of Freytag's Pyramid.
Quantitative Analysis	Rubric scores of the stages involved were computed to provide a net overall alignment score per art piece. A scoring system such as this one allows the comparison of narrative quality between different pieces of art.
Instrumental researcher:	The researchers played an integral part in the data collection and analysis, interacting directly with the data. This approach, according to Collins & Stockton (2022), goes on to acknowledge 'the background, beliefs, and experiences of the researcher', which are likely to influence how data is

being interpreted. To prevent probable biases, the researchers had						
reflexivity and peer-consulting.						

Figure 2 : Methodology

The researcher admits that biases may arise from self-reflection. Art prompts that incorporate narrative or storytelling elements are emphasised using Leonardo AI's data gallery. The proposed Freytag's Pyramid Rubric in Figure 3 was adapted from Freytags Plot Elements Pyramid, (n.d.) available from the RCampus website, and adapted the work of (Smith and Monforte, 2020). These served as reference to improvise the criteria to assess creative prompt alignment with the narrative, to quantify the strength of the Freytag prompt.

Criteria	1	2	3	4	5
	(Low	(Moderate	(Fair	(Good	(High
	Alignment)	Alignment)	Alignment)	Alignment)	Alignment)
Exposition	Minimal or	Limited	Basic	Adequate	Comprehensiv
	no	exposition;	exposition;	exposition;	e exposition;
	exposition;	some	provides	establishes	thoroughly
	lacks context	context	context but	context and	establishes
	or	provided but	lacks depth.	background.	context and
	background	insufficient.			background.
	information.				
Rising	Limited or	Partial	Adequate	Good	Excellent
Action	unclear	developmen	development	development	development;
	developmen	t of events;	; events	; effectively	creates a
	t of events	some	leading to	builds	strong buildup
	leading to a	progression	the climax	tension and	of events
	climax.	toward	are evident.	anticipation	toward the
		climax.			climax.
Climax	Unclear or	Weak	Adequate	Strong	Powerful
	missing	climax; a	climax; a	climax; a	climax; a highly
	climax; lacks	somewhat	clear	well-defined	impactful and
	a defining	discernible	moment of	moment of	emotionally
	moment of	moment of	conflict with	intense	charged
	conflict or	conflict but	moderate	conflict or	moment of
	high point	lacks impact.	impact.	revelation.	conflict.
Falling	Limited or no	Weak	Adequate	Good	Excellent
Action	resolution or	resolution;	resolution;	resolution;	resolution;
	falling	minimal	some closure	provides	thoroughly
	action; story	attempt at	and wrap-up	satisfying	wraps up the
	feels	providing	of story	closure and	story, leaving
	incomplete.	closure or	elements.	resolution of	no loose ends.
		tying up		key	
		loose ends.		elements.	

Denouemen	Absent or	Weak	Adequate	Good	Excellent
t	unclear	denouement	denouement	denouement	denouement;
(Resolution)	denouement	; limited	; provides	; offers	delivers a
	; lacks a clear	reflection or	some	insightful	profound
	conclusion	conclusion of	reflection or	reflection or	reflection or
	or reflection.	the	conclusion.	a meaningful	thought-
		narrative.		conclusion.	provoking
					conclusion.

Figure 3: The Proposed Freytag's Pyramid Rubric

Result and Discussion

AI Art Generated

An AI art generated by alex1shved

Prompt Analysis

Prompt: A silhouette of a girl stands at the edge of a pool, her hair blowing in the wind. The moon reflects off the water, creating a thousand sparkling diamonds. She closes her eyes and takes a deep breath, feeling the coolness of the water on her skin. She opens her eyes and smiles, knowing that this moment is perfect. She takes a step into the pool, and the water closes over her head. She swims for a while, enjoying the feeling of the water on her skin and the freedom of movement. Eventually, she stops swimming and floats on her back, looking up at the stars. She feels a sense of peace and tranquillity. She knows that this moment will stay with her forever. hyperrealism, skin very elaborated.

The narrative in terms of Freytag's Pyramid was breakdown as follows:

Exposition: The silhouette of a girl at the poolside, windblown hair, and sparkling moonlight on the water set the scene and introduce the character effectively. (Mark: 4)

Rising Action: Closing her eyes, deep breath, and anticipation ("knowing this moment is perfect") lead up to the girl's step into the pool, building tension and intrigue. (Mark: 3)

Climax: The actual submersion, water closing over her head, marks the turning point and transition from anticipation to fulfilment. (Mark: 3)

Falling Action: Swimming, feeling the water, freedom of movement, and eventual stillness while floating under the stars paint a vivid picture of the girl's experience. (Mark: 4) Denouement: Reflecting on the lasting memory of this perfect moment solidifies the narrative arc and reinforces the theme of peace and tranquillity. (Mark: 4)

Total Marks: 18/25



An AI art generated by monnas

Prompt: When I was 18 years old, life threw me a difficult problem. At the same time, I was faced with the illness of my relatives and the pressure of going to school. During this time, I didn't have time to process my emotions properly, so I made a decision, a way that allowed me to express my emotions. I turned the memory of this difficult period into smoke and tattooed it on my hand, becoming a companion to my soul. Every line in the tattoo carries the feelings of this time. The smoke lingering around my fingers reminded me of those days and became a symbol of my strength. When sick relatives need care and the pressure of going to school looms, I can always feel the smoke from the tattoo reminding me to persevere. There is a special tattoo among them, which shows a picture filled with smoke, which symbolizes my state of mind during this period of time. It not only made me feel strong, but also became a bond that deeply connected me with my family.

The narrative in terms of Freytag's Pyramid was breakdown as follows:

Exposition 3/5: Introduces the protagonist at 18 and mentions facing a difficult problem and multiple challenges (illness, school pressure). However, it lacks specific details about the nature of the problem or the protagonist's emotional state. (Mark: 3):

Rising Action: Highlights the inability to process emotions due to external pressures, building tension and curiosity. However, it does not provide enough context about the internal conflict or its manifestation. (Mark: 3):

Climax: The decision to get the tattoo as a way to express emotions marks a turning point but could be made more impactful with emotional depth. (Mark: 3)

Falling Action: Vividly describes the tattoo's ongoing impact through sensory details and its symbolic connection to strength and perseverance. (Mark: 3)

Denouement: Concludes with the tattoo's dual role as a source of strength and family connection, but the emotional resolution feels incomplete. (Mark: 3)

Total Marks: 15/25

An AI art generated by UU

Prompt: Design an image showing a person stepping out of a comfort zone represented as a tombstone. Show vibrant dreams and opportunities outside, symbolizing the courage to break free from comfort for a fulfilling life.

The narrative in terms of Freytag's Pyramid was breakdown as follows:

Exposition: The prompt managed to establish the main theme of stepping out of a comfort zone (tombstone), but it lacks specific details about the person or their motivations. (Mark: 3)

Rising Action: The mention of vibrant dreams and opportunities outside builds anticipation, but it's not clear how these are contrasted with the comfort zone or what specific struggles the person might face. (Mark: 3):

Climax: The act of stepping out remains the turning point, but without more context or emotional depth, it might feel generic. (Mark: 3)

Falling Action: While the prompt mentions vibrant dreams and opportunities, it lacks specifics or visual details about what lies beyond the comfort zone. This makes it difficult to imagine the person's journey or the impact of their choice. (Mark: 3):

Denouement: The prompt aims for a sense of fulfilment and liberation, but without resolving the person's internal conflict or showing their emotional state after stepping out, it feels incomplete. (Mark: 3):

Total Marks: 15/25



Prompt: Generate a sombre image showing Elizabeth Barton in a moment of vulnerability, reflecting on her downfall and the events that led to her execution.

The narrative in terms of Freytag's Pyramid was breakdown as follows:

Exposition (4/5): The exposition sets a somber tone by describing the objective to generate an image of Elizabeth Barton in a moment of vulnerability. While it establishes the mood and central character, it could provide more background on the events that led to her downfall to enrich the context.

Rising Action (3/5): The rising action is implicit in the prompt, indicating Elizabeth Barton reflecting on her downfall and the events that led to her execution. However, it lacks specific details that could build anticipation and engagement. Adding more about her emotional state or the circumstances would enhance this aspect.

Climax (4/5): The climax is the moment of vulnerability, reflecting on Elizabeth Barton's downfall and impending execution. This is a crucial and emotionally charged point, representing the narrative's peak.

An AI art generation by 737990 Falling Action (2/5): The prompt doesn't explicitly provide a distinct falling action. It transitions from the climax to the resolution without a clear winding down. A brief reflection on the aftermath or a moment indicating the conclusion of her thoughts could strengthen the narrative structure.

Denouement (3/5): The resolution involves the completion of Elizabeth Barton's reflection on her downfall and the events leading to her execution. While it provides a sense of closure, a bit more detail about how this reflection concludes or impacts her state of mind could enhance the resolution.

Total marks: 16/25



An AI art generation by Grazy_x23

Prompt : Powerful Characters: Highlight Achilles and Hector at the height of their strength, with determined and imposing expressions. Epic Scenario: Setting in the city of Troy during the war, with imposing walls and traces of conflict in the background. Intense Confrontation: Capture the crucial moment of the clash, with Achilles brandishing his famous spear and Hector defending himself with exceptional skill. Notable Expressions: Facial details that convey the intensity of the fight, showing the ferocity of Achilles and the courage of Hector. Dramatic Color Palette: Use vibrant shades of red, gold and blue to highlight the drama of the scene, adding depth and emotion. Realistic Armor Details: Highlight the details of the armor, reflecting the craftsmanship of the time, with a metallic shine in the most impacted areas. Narrative Elements: Integrate elements of myth, such as divine symbols or references to the Trojan prophecy, to enrich the story in the image.

The narrative in terms of Freytag's Pyramid was breakdown as follows:

Exposition (4/5): The exposition is implicitly present, establishing the scene in the city of Troy during the war, highlighting Achilles and Hector at the height of their strength. However, it could be more explicit about the background and context of the conflict.

Rising Action (5/5): The rising action is well-developed, describing the powerful characters, the epic scenario, and leading up to the intense confrontation. The elements build anticipation effectively, drawing the audience into the escalating conflict.

Climax (5/5): The climax is the intense confrontation between Achilles and Hector, vividly capturing the crucial moment of the clash. This is the focal point of the narrative, representing the peak of tension and drama.

Falling Action (3/5): The prompt does not explicitly provide a distinct falling action, in need of a brief reflection or a subtle transition could enhance the narrative structure.

Denouement (4/5): The resolution involves integrating elements of myth, such as divine symbols or references to the Trojan prophecy, to enrich the story in the image.

While it provides a sense of closure, a bit more detail about how these mythic elements contribute to the conclusion could strengthen the resolution.

Total marks :



An AI ART by devendert07

Prompt : In a richly illustrated scene, a majestic Santa Claus with his trusty reindeer embarks on a magical journey to deliver gifts. The image, a dazzling painting adorned with vibrant colors, portrays Santa and his reindeer with intricate attention to detail. Santa is depicted as a jolly figure, adorned in a red suit, his frosty-white beard flowing as he joyfully navigates through a starlit night sky. The reindeer prance gracefully, their antlers bedecked with golden bells, their coats gleaming with an ethereal glow. This splendidly crafted image captivates viewers with its exquisite artistry, evoking feelings of warmth and wonder during the festive holiday season.

The narrative in terms of Freytag's Pyramid was breakdown as follows:

Exposition (5/5): Sets a vivid scene with a majestic Santa Claus on a magical journey with vibrant colors, intricate details, and a starlit night sky, immediately capturing attention and imagination.

Rising Action (4/5): Builds on the exposition, adding details about Santa's appearance, jolly demeanor, and the ethereal glow of the reindeer. More insight into specific magical elements or gift delivery anticipation could enhance this stage.

Climax (5/5): Depicts Santa and reindeer in the starlit night sky, visually captivating with intricate details, representing the narrative's pinnacle with a sense of magic and wonder.

Falling Action (2/5): The prompt lacks a distinct falling action, maintaining a magical atmosphere without a clear transition from the climax to the resolution. A brief reflection or subtle transition could add closure to the narrative.

Denouement (4/5): Describes the image as splendidly crafted, captivating viewers with exquisite artistry, and evoking warmth and wonder during the festive season. A more explicit mention of the emotional impact on viewers could strengthen the resolution.

Total marks: 20/25

Figure 4 : Samples of Freytag's Pyramid prompts evaluation

The following examples show how the suggested rubric might be used to evaluate prompts to determine whether they match with the Freytag Pyramid, which directs the artistic form. The AI requires training data that highlights this narrative structure to employ Freytag's pyramid. The AI can be instructed to follow this structure during its creative process by explicit rules or guidelines, or it can be trained on a corpus of narrative-driven art. Depending on the AI system's level of sophistication, users may be permitted to enter requirements for every pyramidal level. Users could instruct the AI on the next steps after providing an explanation such as "two characters meeting in a desolate wasteland". However, after generating art, it would be important to evaluate whether the AI's creations effectively embody Freytag's pyramid. This could be done through human feedback or by comparing the generated art to known examples of this narrative structure, which is a possible future area of research studies.

Conclusion

The use of artificial intelligence (AI) in art has opened new creative possibilities, inspiring unique works that follow the structure of Freytag's pyramid. Originally designed for traditional narratives, the principles of Freytag's pyramid have been adapted to AI-generated art, creating structured and emotionally resonant pieces that bridge technology and human expression. However, precise AI implementation and effective result evaluation pose significant challenges.

Al storytelling revolutionises the creation and dissemination of stories and promotes a mutually beneficial partnership between artists and AI systems. The use of narrative cues in AI art outputs represents a confluence of skills as researchers investigate how AI can recognise narrative signals to produce visually arresting art. By fusing human creativity with AI capabilities, the strategic integration of AI transforms the creation and sharing of narratives. To sum up, AI-generated art is a new area with enormous potential for the development of both technology and art in the future.

References

Azza, N. (2023). What is Leonardo.Al? (A detailed guide). DigitBin.

https://www.digitbin.com/what-is-leonardo-ai/#What_Is_LeonardoAI

Biswas, R. (2016). The six main arcs in storytelling, identified by a computer. The Atlantic. https://www.theatlantic.com/technology/archive/2016/07/the-six-main-arcs-in-storytelling-identified-by-a-computer/490733/

Boden, M. A. (1998). Creativity and artificial intelligence. Artificial Intelligence, 103, 347–356.

Ciğerci, F., & Yıldırım, M. (2023). From Freytag pyramid story structure to digital storytelling: Adventures of pre-service teachers as story writers and digital storytellers. Education and Information Technologies, 1-24. https://doi.org/10.1007/s10639-023-12042-7

INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS AND SOCIAL SCIENCES

Vol. 14, No. 6, 2024, E-ISSN: 2222-6990 © 2024

- Collins, C. S., & Stockton, C. (2022). The theater of qualitative research: The role of the researcher/actor. International Journal of Qualitative Methods, 21(9). https://doi.org/10.1177/16094069221103109
- Freytag, G. (1863). Die Technik des Dramas. Verlag von S. Hirzel.
- Freytag's plot elements pyramid. (n.d.). [Rubric]. RCampus. https://www.rcampus.com/rubricshowc.cfm?code=SA7CWC&sp=yes&
- Glatch, S. (2021). The 5 elements of dramatic structure: Understanding Freytag's Pyramid. Writers.com. https://writers.com/freytags-pyramid
- Goring, S., Ramachandra Rao, R. R., Merten, R., & Raake, A. (2023). Analysis of appeal for realistic AI-generated photos. IEEE Access, 11, 38999-39012. http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=6287639. https://doi.org/10.1109/ACCESS.2023.3267968
- Harun, A., Razak, M. R. A., Nasir, M. N. F. M., & Ali, A. (2013). Freytag's pyramid: An approach for analyzing the dramatic elements and narrative structure in Filem Negara Malaysia's first animated cartoon.
- Hussain, Z., Zhang, M., Zhang, X., Ye, K., Thomas, C., Agha, Z., ... & Kovashka, A. (2017). Automatic understanding of image and video advertisements. In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (pp. 1705-1715).
- Kulkarni, C., Druga, S., Chang, M., Fiannaca, A., Cai, C., & Terry, M. (2023). A word is worth a thousand pictures: Prompts as AI design material. arXiv preprint arXiv:2303.12647.
- Yang, L., et al. (2022). A design space for applying the Freytag's pyramid structure to data stories. IEEE Transactions on Visualization and Computer Graphics, 28(1), 922-932. https://doi.org/10.1109/TVCG.2021.3114774
- Oppenlaender, J., Linder, R., & Silvennoinen, J. (2023). Prompting AI art: An investigation into the creative skill of prompt engineering. arXiv preprint arXiv:2303.13534. https://arxiv.org/abs/2303.13534
- Smith, B., & Monforte, J. (2020). Stories, new materialism and pluralism: Understanding, practising and pushing the boundaries of narrative analysis. Methods in Psychology. https://doi.org/10.1016/j.metip.2020.100016
- Tsai-Yun, M., Tay-Sheng, J., & Chien-Hsu, C. (2013). From storyboard to story: Animation content development. Educational Research and Reviews, 8(13), 1032-1047.
- Ultimate list of AI prompts for all AI generators. (2023). 57 great examples of AI prompts for all AI generators. That FOMO is Real. https://thatfomoisreal.com/ai-prompts-list/
- Waris, A. (2023). Leonardo AI: Albert Einstein recreated through artificial intelligence! Medium. https://medium.com/@warisonline/leonardo-ai-revolutionizing-artificialintelligence-for-a-smarter-future-984d250342fb
- Moloney, K. (2018). Transmedia photography: Implicit narrative from a discrete moment. In The Routledge companion to transmedia studies (pp. 173-182). Routledge.
- Mazzone, M., & Elgammal, A. (2019). Art, creativity, and the potential of artificial intelligence. Arts, 8(1), 26.
- Mittenentzwei, S., Garrison, L. A., Mörth, E., Lawonn, K., Bruckner, S., Preim, B., & Meuschke,
 M. (2023). Investigating user behavior in slideshows and scrollytelling as narrative genres in medical visualization. Computers & Graphics, 114, 229–238