

---

## THE EFFECT OF CHAT GENERATIVE PRE-TRAINED TRANSFORMERS AND STORYTELLING ON COMMUNICATION RESPONSE IN LAMPUNG GEH'S VIDEO CONTENT

**Wawan Hernawan<sup>1</sup>, Hasan Basri<sup>2</sup>, Renanda Rizki Aryshena<sup>3</sup>**

Universitas Bandar Lampung, Lampung, Indonesia

wawan.hernawan@ubl.ac.id<sup>1</sup>, hasan.basri@utb.ac.id<sup>2</sup>, renanda.20711068@studen.ubl.ac.id<sup>3</sup>

---

### ABSTRACT

The development of digital technology has brought significant changes in how content is consumed and delivered to audiences. In this era, technologies such as Chat-GPT and Storytelling techniques are increasingly popular in video content creation, including on platforms such as Lampung Geh. This study aims to determine the effect of Chat Generative Pre-Trained Transformer and Storytelling on Communication Response on Lampung Geh Video Content. The method used in this research is quantitative. This study involved 300 respondents using an online questionnaire consisting of 14 questions. The data were analyzed using validity, reliability, and classical assumption tests such as normality, multicollinearity, and heteroscedasticity tests. The results showed that the use of Chat Generative Pre-Trained Transformer and Storytelling together significantly influenced the Communication Response of Lampung Geh audience. Individually, both variables  $X_1$  and  $X_2$  each influence variable  $Y$ . The coefficient of determination shows that Chat Generative Pre-Trained Transformer and Storytelling can explain 58.4% of the variability in Communication Response. In comparison, other factors influence the remaining 41.6%. This research provides valuable insight into the relationship between using artificial intelligence chat-GPT and Storytelling with Lampung Geh's audience's communication response. The research has implications for providing valuable insights into the relationship between the use of Artificial Intelligence Chat-GPT and Storytelling with the Communication Response of the Lampung Geh audience. The implication is that the use of AI technology and effective storytelling techniques can increase audience interaction and engagement so that it can be an essential strategy for creating more exciting and influential video content.

**Keywords:** GPT Chat, Storytelling, Response, Communication, Artificial Intelligence.

---

Corresponding Author: Wawan Hernawan

E-mail: wawan.hernawan@ubl.ac.id



### INTRODUCTION

The development of technology today is very rapid, which has led to more and more innovations being created. Technology is always based on the problems faced by humans, and technology is also present to facilitate the work done by humans. Humans create technology as a tool to overcome various problems faced in everyday life (Nurudin, 2020). As described by (Azzahra et al., 2023), with the help of AI, all data analysis and processing will be more accurate than humans. In addition, AI can search automatically and display it immediately and quickly. Modern civilization is built and supported by technological advances; the more advanced technology is mastered, the more advanced a civilization is. The advancement of innovation presents artificial intelligence (AI) technology. Artificial intelligence emerged as an innovation born from the development of this technology. According to (Institute, 2023), early AI research in the 1950s explored topics such as problem-solving and symbolic methods. In the 1960s, the US Department of Defense became

interested in this work. It began training computers to mimic basic human reasoning. For example, the Defense Advanced Research Projects Agency (DARPA) completed a road mapping project in the 1970s. Moreover, DARPA produced an intelligent personal assistant in 2003.

Artificial Intelligence (AI) is widely used by the public, including Chat GPT (Generative Pre-training Transformer). ChatGPT (Chat Generative Pretrained Transformer) is a chatbot that generates content created by human-like AI based on user input. ChatGPT 3.5 was developed by Open AI and released in November 2022. Chat GPT was first created by OpenAI, an artificial intelligence research company based in San Francisco, California, and was officially opened to the public in 2021. ChatGPT is built on GPT-3, the most advanced generative language model (Kirmani, 2022). Chat GPT is an AI developed by Open AI, formed on December 11, 2015. Retrieved from (Bakrie, 2023) Chat GPT (Generative Pre-training Transformer) is an artificial intelligence that uses a conversation format.

The simple technicality is that we ask the teacher questions in class. However, in Chat GPT, you ask the AI and automatically get answers quickly. One of the advantages of this technology is that it is accessible anytime and anywhere. We can use and distribute this technology worldwide (Cholik, 2021). GPT chat can also be used to solve problems. The problem with media content is that messages conveyed by ordinary humans seem less than optimal in providing information or messages. ChatGPT is designed by OpenAI, one of the most advanced artificial intelligence (AI) systems for deep learning in interpreting human language (Arviani et al., 2023). AI and its use in assisting the creation of digital media content is very beneficial for the sustainability and development of digital media. According to the Ministry of Education and Research about AI as reported from (Kemendikbudristek, 2023), "AI also has great potential to support human work. This technology can analyze and process data quickly".

In this digital era, artificial intelligence technology, such as Chat GPT, has an important role in all fields, including the creative industry. Chat GPT can also be used to develop creative ideas for creative, educational, and informative content. According to (Hanifa et al., 2023), Indonesia's creative industry embraces technology and utilizes artificial intelligence (AI) in its development. The application of artificial intelligence in the creative industry is significant. Creative industry employees are offered the ease of idea search and efficiency with the help of AI. The content produced with the help of AI Chat GPT can be narration for Instagram social media content videos. Chat GPT becomes essential when the benefits generated are enormous, such as getting insight or communication responses from storytelling video viewers. The use of Chat GPT in developing Lampung Geh storytelling content is an exciting phenomenon of change for digital media to continue innovating in creating engaging content to watch. This technology affects the audience's perception and interaction with the stories or narratives to be conveyed. An in-depth understanding of how these technologies affect how audiences perceive, receive and interact with storytelling content is essential in formulating more effective and relevant story development strategies.

Social media is a medium on the internet that allows users to represent themselves and interact, cooperate, share, communicate with other users, and form virtual social ties. Instagram social media is the leading platform for Lampung Geh online media in disseminating information to the public. Instagram is a social media platform that is quite famous and has become a trend centre for the community. Based on data from (Network, 2023), there are 106 million Instagram users in Indonesia. The number of Instagram users in Indonesia also increased by 18.9% compared to the

previous quarter (quarter-to-quarter / qdq), which was 89.15 million people as of January 2023. This makes Instagram a promising platform for Lampung Geh to gain insight or a more comprehensive range of communication responses. Lampung Geh is the largest online media in Lampung. Lampung Geh is a media whose credibility is recognized by the people of Lampung.

The use of Chat GPT on audience perception and interaction in Lampung Geh storytelling content is essential to explore the potential and impact of this technology in creating more exciting and informative content in today's digital era. To increase the reach and response of audience communication to Lampung Geh's storytelling video content, storytelling scripts/narratives are created with the help of Chat GPT. This is similar to what was conveyed by Rahel Azzahra as a scriptwriter, who stated that the use of Chat GPT in making narratives becomes more interesting so that those watching become more interactive and respond to the storytelling content. In segmenting Lampung Geh's storytelling video content to get a unique response from respondents by using Chat GPT to create scripts/narratives, the resulting videos also get more responses than content that does not use Chat GPT.

Artificial intelligence (AI) technology in producing online media content has become crucial to dealing with the changing dynamics of digital content consumption. Lampung Geh, one of the leading online media platforms in Lampung Province, applies the concept of storytelling through video as one of the main methods of delivering educational and entertaining information to its audience. A breakthrough is seen with the integration of Chat GPT technology in creating this video content, which is a significant step in increasing audience appeal and engagement. Chat GPT, as a recent example of artificial intelligence, can generate in-depth and engaging narratives in video content without human intervention. The positive response from audiences to videos involving Chat GPT in the storytelling process signifies this technology's potential to change how content is produced and received by audiences. In this context, research on the influence of Chat GPT technology in Storytelling on audience communication responses on Lampung Geh video content becomes increasingly important, as it not only opens the door to a deeper understanding of audience response dynamics but also illustrates the transition towards technology in an increasingly relevant and attention-grabbing media industry.

This research uses three levels of theory: Grand Theory, Middle Range Theory, and Applied Theory. The first theory that will be used is behavioural theory; Gage and Berliner created this theory of behaviour change. This theory later developed into a school of psychology that influenced the development of education and learning theories known as the behavioristic school. According to (Krapfl, 2016), Behaviorists believe that environmental stimuli shape our behaviour; this theory is based on the idea that conditioning occurs through interaction with our environment and that all behaviour is acquired through conditioning. To find out the behaviour of the communication response given by the storytelling respondent, it is necessary to apply behavioural theory to understand the respondent's behaviour. Then, finding out the respondent's reaction requires Middle Range Theory Stimulus, Organism, and Response (SOR). According to (Puspitasari et al., 2023), SOR is a communicative stimulus received by someone that can affect the response. The effects can be interrelated with the message conveyed and the response received by the recipient. SOR is needed to determine the communication response of the storytelling audience after being given a stimulus. For its application (Applied Theory), this research will use the theory of Digital Communication. According to the website (FleishmanHillard, 2009), Digital Communication is a myriad of

communication tactics that utilize digital technology to deliver messages such as email, video, text messaging, online advertising, paid search, optimized press releases, podcasts, vodcasts, and others.

Meanwhile, according to the article (Academy, 2023), Digital Communication is the process of exchanging information, messages, and ideas using digital technologies and platforms. It involves the transmission and reception of data through electronic devices and networks. Digital Communication enables real-time interaction, instant messaging, video conferencing, and multimedia content sharing across large distances. In its use, this research refers to the use of digital media in conveying information to communication respondents, hence the need to maximize the three levels of Behavioral theory, S.O.R, and Digital Communication in this research. Based on the background above, the objective of this study is to determine the impact of Chat Generative Pre-Trained Transformer and Storytelling on Communication Response in Lampung Geh video content. This research offers significant benefits both theoretically and practically. Theoretically, the results of this study can enhance the understanding of how advanced technologies like Chat Generative Pre-Trained Transformer and storytelling techniques affect communication responses within the context of digital media. Practically, the findings can assist content creators and marketers in designing more effective and engaging communication strategies for their audience, and provide valuable insights on how to leverage technology and narrative to improve interaction and engagement with video content.

## **METHOD**

This research uses quantitative methods. Quantitative Research Methods are methods based on the philosophy of positivism and are used in determining specific populations or samples. Using research instruments in collecting data, statistical analysis aimed at testing research hypotheses (Sugiyono & Lestari, 2021). Determining the effect of the independent variable on the dependent variable requires quantitative methods to prove the hypothesis. The reason researchers choose to examine the subject of Chat GPT and Storytelling is that the development of technology and its use in the creative industry is exciting to study, especially since this is said to have a visual influence on the communication response given by the audience of Lampung Geh video content. The object chosen is the audience of Lampung Geh video viewers. Of course, this is unique because each respondent or audience gives a different response.

The research population taken is an account that follows Instagram @lampuung (Lampung Geh) and has been active for the last 90 days, totalling 10,690, with criteria: 1) Actively using Instagram social media, 2) Aged 18-44 years, 3) Active @lampuung Instagram followers. The research sample is a part or representative with characteristics representing the population (Amin et al., 2023). The sample determination in this study was carried out using the Slovin formula. Based on this calculation, the study will use a sample of 98 people aged 19-24 years, 98 people aged 25-34 years, and 93 people aged 35-44 years. The total sample size is 289 people (rounded up to 300 people). Creating and distributing the questionnaire online gave the researcher various categories of respondents and different answers. Respondents' answers will help researchers obtain quantitative data analyzed by regression correlation statistical tests. The correlation test determines whether the independent variables ( $X_1$  and  $X_2$ ) affect the dependent variable ( $Y$ ). The regression test is carried out as a predictive function of the influence of the independent variables ( $X_1$  and  $X_2$ ) on the dependent variable ( $Y$ ). The magnitude of the influence of the independent

variables ( $X_1$  and  $X_2$ ) on the dependent variable (Y) is determined by the determination index. At the same time, the significance test is carried out through the t-test and F-test.

## RESULTS AND DISCUSSION

The research explains the effect of Chat GPT and Storytelling on the Communication Response of the audience of Lampung Geh video viewers. Using Chat GPT in Storytelling effectively and efficiently makes Lampung Geh videos. In this study, research respondents were obtained from 300 Lampung Geh followers. Data was collected using a questionnaire with the following criteria: 4 = Strongly Agree, 3 = Agree, 2 = Disagree, and 1 = Strongly Disagree. Data instrument testing is needed to determine that the variables studied have a function as a means of proof, including validity and reliability tests. The basis for making decisions by comparing the value of r count with r table with  $df = n - 2$  at the 10% significance level as follows: 1) If the value of r count > r table, then the questionnaire question is declared valid, 2) If the value of r count < r table, then the questionnaire question is declared invalid. In the validity test of the  $X_1$ ,  $X_2$ , and Y research instruments, all question items are considered valid because they have an account value that exceeds 0.095 by the decision-making guidelines. In the reliability test, the basis for making reliability test decisions can also be seen by comparing the Cronbach's alpha value: 1) If the Cronbach's alpha > 0.60, then the question item is reliable, and 2) If the Cronbach's alpha < 0.60, then the question item is not reliable.

The t-test was conducted to determine the effect of each variable X ( $X_1$  and  $X_2$ ). The t-test results for  $X_1$  and  $X_2$  can be seen in Table 1 below:

**Table 1. Results of t-Test Coefficients<sup>a</sup>**

|   | Model                                   | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|---|-----------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|   |                                         | B                           | Std. Error | Beta                      |        |      |
| 1 | (Constant)                              | 5.696                       | .563       |                           | 10.117 | .000 |
|   | Chat Generative Pre-Trained Transformer | .219                        | .054       | .250                      | 4.068  | .000 |
|   | Storytelling                            | .493                        | .055       | .551                      | 8.964  | .000 |

a. Dependent Variable: Communication Response

Based on the significance value (Sig.) of the output table "Coefficients."

1. A t-test to see the effect between Chat Generative Pre-Trained Transformer on Communication Response.

Based on the output in the "Coefficients" table above, the Sig. The value for variable  $X_1$  is 0.000, where this value is smaller than 0.1 ( $0.000 < 0.1$ ). So, based on the decision-making guidelines, by comparing the significance value, it can be concluded that the hypothesis is accepted or that there is an influence between Chat Generative Pre-Trained Transformer and Communication Response.

2. The t-test is used to see the effect of storytelling and communication responses.

Based on the output in the "Coefficients" table above, the Sig. The value for variable  $X_2$  is 0.000, where this value is smaller than 0.1 ( $0.000 < 0.1$ ). So, based on the decision-making guidelines, comparing the significance value can conclude that the hypothesis is accepted or that there is an influence between storytelling and communication response.

To determine the effect of  $X_1$  and  $X_2$  simultaneously, the F test was conducted. The results of the F test can be seen in Table 2 below:

Table 2. ANOVA F Test Results<sup>a</sup>

|   | Model      | Sum of Squares | df  | Mean Square | F       | Sig.              |
|---|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 943.648        | 2   | 471.824     | 208.747 | .000 <sup>b</sup> |
|   | Residuals  | 671.299        | 297 | 2.260       |         |                   |
|   | Total      | 1614.947       | 299 |             |         |                   |

a. Dependent Variable: Communication Response

b. Predictors: (Constant), Storytelling, Chat Generative Pre-Trained Transformer

Based on the output in the "ANOVA" table above, the Sig. Value is 0.000, where this value is smaller than 0.000 (0.000 < 0.1) and the Fcount > Ftable value. Based on the decision-making guidelines, by comparing the significance value and the Fcount value with Ftable, it can be interpreted that there is a significant influence between Chat Generative Pre-Trained Transformer and Storytelling simultaneously on Communication Responses on Lampung Geh Video Content.

To find out the determination index can be seen in the results of the coefficient of determination test in Table 3 below:

Table 3. Determination Coefficient Test Results Model Summary<sup>b</sup>

|   | Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|-------|-------------------|----------|-------------------|----------------------------|
| 1 |       | .764 <sup>a</sup> | .584     | .582              | 1.503                      |

a. Predictors: (Constant), Storytelling, Chat Generative Pre-Trained Transformer

b. Dependent Variable: Communication Response

Based on the "Model Summary" output table above, the R Square coefficient value is 0.584 or equal to 58.4%. This figure means that the Chat Generative Pre-Trained Transformer and Storytelling variables simultaneously (together) affect the Communication Response variable by 58.4%. At the same time, the remaining 41.6% (100% - 58.4%) is influenced by other variables outside this regression equation (variables not examined).

To find out the results of multiple linear regression tests as shown in table 4 below:

Table 4. Multiple Linear Regression Test Results Coefficients

|   | Model                                   | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|---|-----------------------------------------|-----------------------------|------------|---------------------------|--------|------|
|   |                                         | B                           | Std. Error | Beta                      |        |      |
| 1 | (Constant)                              | 5.696                       | .563       |                           | 10.117 | .000 |
|   | Chat Generative Pre-Trained Transformer | .219                        | .054       | .250                      | 4.068  | .000 |
|   | Storytelling                            | .493                        | .055       | .551                      | 8.964  | .000 |

a. Dependent Variable: Communication Response

The multiple regression equation is  $Y = a + b_1 x_1 + b_2 x_2 + \dots + b_n x_n$  So, based on the above output, a regression model is obtained:

$$Y = 5.696 + 0.219X_1 + 0.493X_2$$

1. a is the constant number of Unstandardized Coefficients. The value is 5.696, which means that if the Chat Generative Pre-Trained Transformer and Storytelling are zero, then the Communication Response is 5.696.
2. b<sub>1</sub> is the regression coefficient number (regression direction coefficient) X<sub>1</sub>. Its value of 0.219 means that assuming Storytelling is fixed (unchanged), every increase in chat, generating a pre-trained transformer by 1 unit will increase communication response by 0.219.

3.  $b_2$  is the regression coefficient number (regression direction coefficient)  $X_2$ . Its value of 0.493 means that assuming the Chat Generative Pre-Trained Transformer is fixed (unchanged), each increase in Storytelling by 1 unit will increase the Communication Response by 0.493.

## CONCLUSION

The results of the data analysis show that Chat GPT significantly affects communication response, indicating that this technology can increase audience interaction and engagement with video content. In addition, Storytelling significantly affects communication response, indicating that the quality of the story or narrative in the video content also plays a vital role in influencing audience communication response. The results of the data analysis also show that both variables, Chat GPT and Storytelling, significantly influence communication response. This suggests that the combination of technology use and story quality in video content can have a greater impact on audience communication response. Thus, the results of this study make an important contribution to understanding the factors that influence communication response in the context of Lampung Geh's video content.

## REFERENCES

- Academy, T. K. (2023). *What is Digital Communication?* Www.Theknowledgeacademy.Com. <https://www.theknowledgeacademy.com/blog/digital-communication/>
- Arviani, H., Tutiasri, R. P., Fauzan, L. A., & Kusuma, A. (2023). ChatGPT For Marketing Communications: Friend or Foe? *Kanal: Jurnal Ilmu Komunikasi*, 12(1), 1–7.
- Azzahra, F. A., Natanael, N., & Abimanyu, F. T. (2023). Perubahan Sosial Akibat Kemunculan Teknologi Chat GPT di Kalangan Mahasiswa. *Madani: Jurnal Ilmiah Multidisiplin*, 1(11).
- Bakrie, U. (2023). *Apa itu Chat GPT? Bagaimana Cara Pakainya?* Bakrie.Ac.Id. <https://bakrie.ac.id/articles/431-apa-itu-chat-gpt-bagaimana-cara-pakainya-kepoinselengkapny.html>
- Cholik, C. A. (2021). Perkembangan teknologi informasi komunikasi/ICT dalam berbagai bidang. *Jurnal Fakultas Teknik UNISA Kuningan*, 2(2), 39–46.
- Fleishmanhillard. (2009). *A brief definition: digital*. Fleishmanhillard. Eu. <https://fleishmanhillard.eu/2009/05/a-brief-definition-digital/>
- Hanifa, H., Sholihin, A., & Ayudya, F. (2023). Peran AI Terhadap Kinerja Industri Kreatif Di Indonesia. *Journal of Comprehensive Science (JCS)*, 2(7), 2149–2158.
- Institute, S. (2023). *What is artificial intelligence?* Www.Sas.Com. [https://www.sas.com/id\\_id/insights/analytics/what-is-artificial-intelligence.html](https://www.sas.com/id_id/insights/analytics/what-is-artificial-intelligence.html)
- Kemendikbudristek. (2023). *Artificial Intelligence (AI): Bahaya atau Dukungan untuk Pekerjaan Manusia?* Itjen.Kemdikbud.Go.Id. <https://itjen.kemdikbud.go.id/web/artificial-intelligence-ai-bahaya-atau-dukungan-untuk-pekerjaan-manusia/>
- Kirmani, A. R. (2022). Artificial intelligence-enabled science poetry. *ACS Energy Letters*, 8(1), 574–576.
- Krapfl, J. E. (2016). Behaviorism and Society. *The Behavior Analyst*, 39(1), 123–129. <https://doi.org/10.1007/s40614-016-0063-8>
- Network, K. M. (2023). *10 Negara dengan Jumlah Pengguna Instagram Terbanyak di Dunia*. Databoks.Katadata. Co.Id. <https://databoks.katadata.co.id/datapublish/2023/09/26/pengguna-instagram-ri-tembus-100-juta-orang-per-april-2023-terbanyak-ke-4-di-dunia>
- Nurudin. (2020). *Perkembangan Teknologi Komunikasi*. Rajawali Pers.

Puspitasari, S., Utomo, I. W., & Emeilia, R. I. (2023). Pengaruh Konten Instagram@petualanganmenujusesuatu Terhadap Sikap Dalam Menjaga Kesehatan mental. *Jurnal Ilmu Komunikasi Dan Media Sosial (JKOMDIS)*, 3(3), 661–672.

Sugiyono, S., & Lestari, P. (2021). *Metode Penelitian Komunikasi (Kuantitatif, Kualitatif, dan Cara Mudah Menulis Artikel pada Jurnal Internasional)*. Alfabeta Bandung, CV.



© 2024 by the authors. It was submitted for possible open-access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).