Factors Affecting Interaction, Supportive Behavior, and Loyalty in Vtuber Channels Among Consumers in Thailand Through the Theory of Reasoned Action and Theory of Parasocial Interaction

Charavadee Phumsuwan[1],[*] Nottakrit Vantamay[2]

[1]M.A. Student in Digital Communication Arts and Lecturer
[2]Department of Communication Arts and Information Science, Faculty of Humanities,
Kasetsart University, Bangkok, Thailand
*Corresponding author, E-mail: chari.dao04@gmail.com

Abstract

This study examined the factors influencing interaction, supportive behavior, and loyalty in VTuber channels in Thailand, based on the Theory of Reasoned Action (TRA) and the Theory of Parasocial Relationship. The research employed a survey-based methodology with a self-administered online questionnaire distributed to 450 participants aged 18–35 who followed one of the top 10 VTuber channels in Thailand. The data were analyzed using multiple regression analysis to determine the factors affecting interaction, supportive behavior, and loyalty in VTuber channels. The results indicated that media exposure and parasocial relationship significantly influenced audience interaction with VTuber channels (β = .344 and β = .367, respectively). Regarding supportive behavior, three key factors were identified: media exposure (β = .350), parasocial relationship (β = .269), and subjective norms (β = .087), suggesting that social influence played a role in audience support for VTubers. Additionally, loyalty to VTuber channels was primarily driven by media exposure (β = .450) and parasocial interaction (β = .289).

These findings highlight the importance of frequent media exposure, parasocial relationship and subjective norm building in shaping audience behavior toward VTuber channels. Businesses and marketers utilizing VTubers for branding and engagement strategies should focus on content frequency and interactive content formats that foster a sense of personal connection between VTubers and their audience. This can enhance increased interaction, supportive behavior, and long-term loyalty.

Keywords: VTuber, Media Exposure, Parasocial Interaction

1. Introduction

In the present era, social media plays a crucial role in shaping communication and consumer behavior (White, 2020). Among various platforms, YouTube stands out as a primary channel where Thai users consume content extensively (Springnews, 2022). This has led to the growth of content creators, particularly YouTubers, who have evolved into VTubers nowadays. Plotter (2022) stated that VTubers are content creators on the digital platform YouTube who present themselves using computer-generated graphics to create a "virtual character" commonly referred to as an "Avatar." The term "VTuber" is derived from the combination of the words "Virtual" and "YouTuber," forming "VTuber" or "Virtual YouTuber". While Takahashi (2020) stated that VTuber, or Virtual YouTubers, means creators who utilize virtual characters through technologies such as Motion Capture and Virtual Reality. The VTuber phenomenon originated in Japan in 2016 when Kizuna AI debuted as the first VTuber, gaining widespread popularity (Yamato, 2018). Since then, VTubers have expanded globally, including in Thailand, where the number of VTuber channels has been steadily increasing (Thai VTubers Directory, 2024).
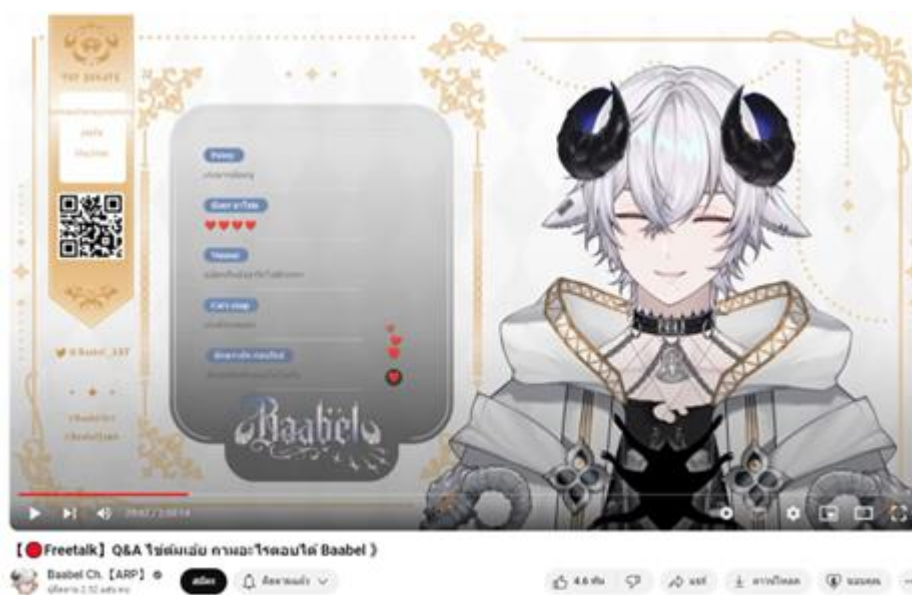
Figure 1 Example of a VTuber from Baabel Channel (Retrieved on July 2, 2024)

Beyond entertainment, VTubers have also emerged as influential figures in marketing and advertising, fostering strong relationships with their audience and influencing consumer behavior (Garcia, 2022). Additionally, VTuber channels play a crucial role in building diverse and strong online communities, where followers can actively engage, share opinions, and interact directly with VTubers (Chen, 2021).

TODAY Bizview (2024) reports indicate that some Thai VTubers generate annual revenues of 60–80 million baht. This aligns with data from Pixela, a VTuber production company in Thailand, which reports that the majority of VTuber viewers in the country fall within the 18–35 age group, particularly young professionals with purchasing power. This demographic represents a key consumer segment in VTuber marketing (TODAY Bizview, 2024). Given the rising popularity of VTubers in Thailand, this study aimed to explore the factors influencing audience engagement with VTuber channels. The research framework was based on the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), which highlights attitudes and subjective norms as key determinants of consumer behavior. Additionally, the Theory of Parasocial Relationship, proposed by Rubin, Perse, and Powell (1985), was applied to examine the relationship between viewers and VTubers, focusing on factors such as media exposure, attractiveness, and parasocial relationship. This theory aims to explain the relationship between the audience (the message receiver) and the media persona or media character (the message sender). This relationship develops through media exposure and interactivity, leading to a sense of closeness and familiarity with the sender (Horton and Wohl, 1956). In this study, the researcher applied the Theory of Reasoned Action (TRA), a psychological theoretical framework used to motivate communication behavior, by incorporating key variables from the theory, namely attitude and subjective norms, to examine their influence on media exposure and consumer engagement with VTuber channels. Attitude toward behavior is associated with subjective norms, which together lead to the formation of intention, ultimately resulting in human behavior. Additionally, the researcher explored the Theory of Parasocial Relationship, a psychological theory, by integrating variables such as media exposure, attractiveness, and parasocial interaction into the study. Since consumer behavior is driven by rational decision-making, supporting a preferred VTuber is often influenced by the attractiveness of the VTuber

channel and the development of parasocial relationships between consumers and VTubers. Therefore, this study investigated the impact of these two theoretical frameworks to determine which factors significantly influenced interaction, supportive behavior and loyalty toward VTuber channels among Thai consumers.

This study aimed to provide insights into the factors driving interaction, supportive behavior, and loyalty for VTuber channels, offering valuable implications for content creators, marketers, and researchers interested in consumer behavior in the digital age.

2. Objectives
1) To investigate the factors influencing interaction with VTuber channels in Thailand
2) To investigate the factors influencing supportive behavior toward VTuber channels in Thailand
3) To investigate the factors influencing loyalty to VTuber channels in Thailand

3. Conceptual Framework and Hypotheses
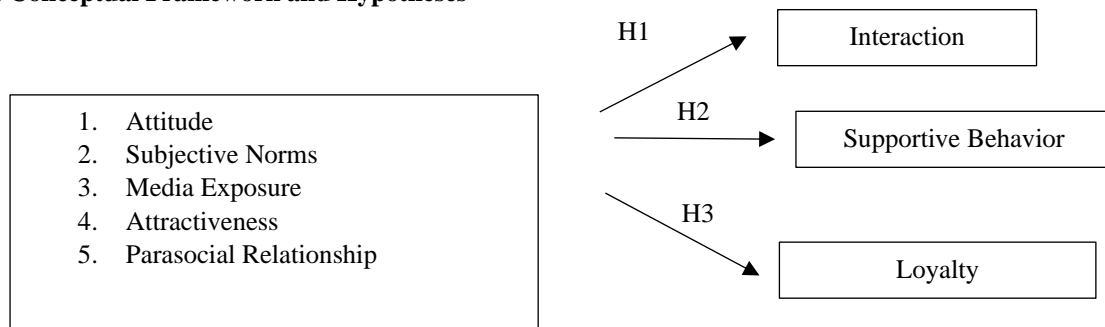
Definition of Terms
1. **Attitude** refers to the consumers' perception of watching VTuber channels. In this study, it encompasses opinions formed after viewing VTuber content, that lead to feelings of enjoyment, technological awareness, receiving product-related information through reviews, and increased enthusiasm for trying new things.
2. **Subjective Norms** refers to consumers' perceptions of social pressure from various groups to follow or subscribe to VTuber channels. In this research, it included influences from friends, streamers, and fan communities of fanart artists.
3. **Media Exposure** refers to the frequency with which consumers watch VTuber channels within a one-week period.
4. **Attractiveness** refers to the degree of interest that consumers express toward VTuber channels. In this study, it included five key attributes: the VTuber's voice, the personality of the virtual character, the backstory of the character, the content of the channel, and the artist who created VTuber fanart.
5. **Parasocial Interaction** refers to the consumers' perceived relationship with VTuber channels. In this study, the researcher adapted the Parasocial Interaction Scale developed by Rubin, Perse, and Powell (1985), consisting of 20 items that were used in the questionnaire to measure this variable.
6. **Supportive Behavior** refers to the actions taken by consumers that demonstrate their support for VTuber channels. In this study, it included activities such as writing reviews, subscribing to the channel, purchasing products, donating through the TipMe system, and donating via Super Chat to pin messages during live streams.
7. **Loyalty** refers to the behaviors that indicate a consumer's consistent engagement with VTuber channels. In this research, it encompassed regular content following, channel membership

subscriptions, purchases of official merchandise, participation in special events, and organizing events in support of their favorite VTubers.

H1: Attitude, subjective norms, media exposure, attractiveness, and parasocial relationship affect audience interaction with VTuber channels in Thailand.
H2: Attitude, subjective norms, media exposure, attractiveness, and parasocial relationship affect supportive behavior toward VTuber channels in Thailand.
H3: Attitude, subjective norms, media exposure, attractiveness, and parasocial relationship affect loyalty to VTuber channels in Thailand.

4. Materials and Methods

This study employed a survey research approach using a closed-ended questionnaire designed to examine factors affecting interaction, supportive behavior, and loyalty toward VTuber channels among Thai consumers. The target population comprised Thai individuals aged 18–35 years who had watched a VTuber channel at least once in the past year and followed one of the top 10 VTuber channels in Thailand, as identified by the Thai VTubers Directory (2024). These channels included: 1) Aisha Channel 2) Dacapo Ch. 3) HORI07 (VZ) 4) Evalia Ch. 5) Baabel Ch. 6) Schneider Ch. 7) Hey Solly 8) Laibaht Ch. 9) Draki Kona Ch. 10) Sanjao Mangkorn Nua Thong. The study's sample consisted of 450 Thai individuals aged 18–35 years who followed one of the top 10 VTuber channels and had watched a VTuber channel at least once in the past year. The sample size was determined using Cochran's formula (1997), assuming an infinite population, a 95% confidence level (Z = 1.96), and an acceptable margin of error of 5% (e = 0.05).

After that, a stratified random sampling method was applied, dividing participants into six equal subgroups based on age and gender. The first subgroup consisted of 75 males aged 18–23 years, while the second subgroup included 75 females aged 18–23 years. Similarly, the third and fourth subgroups consisted of 75 males and 75 females aged 24–29 years, respectively. The final two subgroups comprised 75 males and 75 females aged 30–35 years. In total, the study included 450 participants, evenly distributed across these categories. Data were collected from 450 participants using an online self-administered questionnaire. The researcher distributed the questionnaire through various fan communities of the top 10 most-followed VTuber channels in Thailand. Before the participants proceeded with the questionnaire, the researcher provided a clear explanation of the study's objectives. Once data collection was completed, the responses were processed using statistical software to analyze and compute the necessary statistical measures for the study. After verifying and ensuring the completeness of all collected questionnaires, the data were coded and analyzed using descriptive statistical analysis to summarize and present the findings, and inferential statistical analysis to test the hypotheses and draw conclusions.

5. Results and Discussion

5.1 Characteristic of the sample

The analysis revealed that the total sample consisted of 450 participants, equally divided by gender. There were 225 male participants (50%) and 225 female participants (50%). The sample was also evenly distributed across three age groups: 150 participants aged 18–23 years (33.30%), 150 participants aged 24–29 years (33.30%), and 150 participants aged 30–35 years (33.30%). The majority of the sample had an average monthly income of less than 15,000 baht, accounting for 202 participants (44.90%). This was followed by those earning 15,001–20,000 baht (120 participants, 26.70%), 20,001–25,000 baht (73 participants, 16.20%), and those earning above 30,000 baht (36 participants, 8.00%). The smallest group comprised participants with an income of 25,001–30,000 baht (19 participants, 4.20%), respectively.

5.2 Variables in the study

5.2.1. Attitude Toward VTuber Channels

The analysis showed that the sample group had a positive attitude toward VTuber channels, with an overall mean score of 4.04 (S.D. = 0.62), indicating a general level of agreement. The highest-rated items were "Watching VTuber channels helps me relax." (Mean = 4.64, S.D. = 0.60) and "Watching VTuber channels makes me more enthusiastic about trying new things." (Mean = 4.35, S.D. = 0.80).

5.2.2. Subjective Norms

The respondents' perception of subjective norms was at a moderate level (Overall Mean = 3.02, S.D. = 0.90). The highest-rated items were "Fan artists recommend following VTuber channels." (Mean = 3.43, S.D. = 1.19) and "Following VTuber channels based on fan artist recommendations" (Mean = 3.28, S.D. = 1.16).

5.2.3. Media Exposure to VTuber Channels

The sample group exhibited a high frequency of media exposure to VTuber channels (Overall Mean = 3.86, S.D. = 0.82). The most frequent activities included "watching VTuber singing clips" (Mean = 4.38, S.D. = 0.89) and "watching special VTuber events such as concerts or cooking shows" (Mean = 4.02, S.D. = 1.07).

5.2.4 Attractiveness of VTuber Channels

The attractiveness of VTuber channels was rated "highly attractive" (Overall Mean = 4.32, S.D. = 0.54). The highest-rated aspects were "VTuber's voice is attractive." (Mean = 4.69, S.D. = 0.62) and "VTuber's virtual character personality is attractive." (Mean = 4.61, S.D. = 0.64).

5.2.5. Parasocial Relationships

The level of parasocial relationships between respondents and VTuber channels was rated as "high" (Overall Mean = 3.91, S.D. = 0.50). The most significant factors were "I enjoy listening to my favorite VTuber's voice." (Mean = 4.78, S.D. = 0.52) and "I like seeing my favorite VTuber act naturally." (Mean = 4.77, S.D. = 0.52).

5.2.6. Interaction with VTuber Channels

The interaction level among respondents was categorized as "frequent" (Overall Mean = 3.41, S.D. = 0.97). The most common interactions were "liking VTuber channel content" (Mean = 4.38, S.D. = 0.92) and "sending stickers to VTubers" (Mean = 3.38, S.D. = 1.44).

5.2.7. Support Behavior Toward VTuber Channels

Support behavior toward VTuber channels was rated at a "moderate" level (Overall Mean = 3.37, S.D. = 0.82). The most common behaviors were "subscribing to VTuber channels" (Mean = 4.65, S.D. = 0.73) and "recommending VTuber channels to others" (Mean = 3.82, S.D. = 1.09).

5.2.8. Loyalty Toward VTuber Channels

Loyalty toward VTuber channels was rated at a "moderate" level (Overall Mean = 3.18, S.D. = 1.05). The most frequent loyalty-related behaviors were "watching every video from a favorite VTuber channel" (Mean = 3.91, S.D. = 1.02) and "subscribing to a VTuber's membership program" (Mean = 3.38, S.D. = 1.53).

5.3 Factors influencing interaction with VTuber channels in Thailand

5.3.1. H1: Attitude, subjective norms, media exposure, attractiveness, and parasocial relationship affect audience interaction with VTuber channels in Thailand

The results of the multiple regression analysis examining factors influencing Interaction indicated that all five independent variables collectively explained 37.80% of the variance in audience interaction with VTuber channels in Thailand (Adjusted R^2 = .378, F = 55.642, Sig. = 0.000). After controlling for the effects of other independent variables, only media exposure (β = .344, t = 7.048, p < .05) and parasocial interaction (β = .367, t = 6.904, p < .05) were found to significantly influence audience interaction. These findings suggested that media exposure and parasocial interaction were the primary factors influencing audience interaction with VTuber channels in Thailand, as shown in table 1.

Table 1 Factors influencing audience interaction with VTuber channels in Thailand

Independent Variables	b	β	t	Sig.t
Attitude	.001	.000	.010	.992
Subjective Norms	.015	.014	.332	.740
Media Exposure	.409	.344	7.048	.000*
Attractiveness	.067	.037	.773	.440
Parasocial Interaction	.716	.367	6.904	.000*
Adjusted R^2 = .378, F = 55.642, Sig. = 0.000*				
*Statistically significant at the .05 level.				

5.3.2. H2: Attitude, subjective norms, media exposure, attractiveness, and parasocial relationship affect supportive behavior toward VTuber channels in Thailand.

The results of the multiple regression analysis examining factors influencing Supportive Behavior indicated that all five independent variables collectively explained 36.40% of the variance in support behavior toward VTuber channels in Thailand (Adjusted R^2 = .364). After controlling for the effects of other independent variables, only three factors were found to significantly influence supportive behavior toward VTuber channels at the .05 significance level: subjective norms (β = .080, t = 2.067, p = .039), media exposure (β = .350, t = 7.077, p < .001), and parasocial interaction (β = .269, t = 5.014, p < .001). Therefore, it can be concluded that subjective norms, media exposure, and parasocial interaction are the key factors influencing support behavior toward VTuber channels in Thailand, as shown in table 2.

Table 2 Factors influencing supportive behavior toward VTuber channels in Thailand

Independent Variables	b	β	t	Sig.t
Attitude	.048	.036	.735	.463
Subjective Norms	.080	.087	2.067	.039*
Media Exposure	.350	.350	7.077	.000*
Attractiveness	.001	.001	.019	.985
Parasocial Interaction	.444	.269	5.014	.000*
Adjusted R^2 = .364, F = 52.318, Sig. = 0.000*				
*Statistically significant at the .05 level.				

5.3.3. H3: Attitude, subjective norms, media exposure, attractiveness, and parasocial relationship affect loyalty toward VTuber channels in Thailand.

The results of the multiple regression analysis examining factors influencing Loyalty, indicated that all five independent variables collectively explained 40.90% of the variance in loyalty toward VTuber channels in Thailand (Adjusted R^2 = .409). After controlling for the effects of other independent variables, only two factors were found to significantly influence loyalty toward VTuber channels at the .05 significance

level: media exposure (β = .450, t = 9.450, p < .001) and parasocial relationships (β = .289, t = 5.582, p < .001). Therefore, it can be concluded that media exposure and parasocial relationships are the key factors influencing loyalty toward VTuber channels in Thailand, as shown in table 3.

Table 3 Factors influencing loyalty toward VTuber channels in Thailand

Independent Variables	b	β	t	Sig.t
Attitude	.048	0.28	.595	.552
Subjective Norms	.001	.001	.030	.976
Media Exposure	.575	.450	9.450	.000*
Attractiveness	.146	.075	1.616	.107
Parasocial Interaction	.608	.289	5.582	.000*
Adjusted R² = .409, F = 63.103, Sig. = 0.000*				
*Statistically significant at the .05 level.				

6. Conclusion and Discussion

This study examined the factors influencing interaction, supportive behavior, and loyalty toward VTuber channels in Thailand, based on the Theory of Reasoned Action (TRA) and the Theory of Parasocial Interaction (PSI). The research employed a survey-based methodology with a self-administered online questionnaire distributed to 450 participants aged 18–35 who followed one of the top 10 VTuber channels in Thailand. The data were analyzed using multiple regression analysis to determine the factors affecting interaction, supportive behavior, and loyalty toward VTuber channels. The results indicated that media exposure and parasocial interaction significantly influenced audience interaction with VTuber channels (β = .344 and β = .367, respectively). Regarding supportive behavior, three key factors were identified: media exposure (β = .350), parasocial interaction (β = .269), and subjective norms (β = .087), suggesting that social influence played a role in audience support for VTubers. Additionally, loyalty to VTuber channels was primarily driven by media exposure (β = .450) and parasocial interaction (β = .289).

The study found that the key factors influencing consumer interaction with VTuber channels were media exposure and parasocial interaction. This aligns with the Theory of Parasocial Interaction by Rubin, Perse, and Powell (1985), which suggests that the more consumers are exposed to media and develop parasocial relationships with media personas, the higher their level of interaction. Similarly, supportive behavior for VTuber channels was influenced by media exposure and parasocial interaction. Additionally, subjective norms also played a role in audience support behavior, consistent with the Theory of Reasoned Action by Fishbein and Ajzen (1975), which states that human behavior is guided by subjective norms—the tendency to conform to social influences. This explains why consumers may subscribe to VTuber channels based on peer influence, follow VTubers recommended by gaming streamers, or subscribe to VTuber channels due to fan artists' endorsements. Regarding loyalty toward VTuber channels, the findings indicated that media exposure and parasocial interaction were the primary drivers of audience loyalty. Although attitude and attractiveness are generally recognized as important factors in influencing consumer behavior, the findings of this study revealed that these variables did not significantly affect interaction, supportive behavior, or loyalty toward VTuber channels. One possible explanation is that attitude—while positive—may reflect a general feeling or perception that does not necessarily lead to actual behavioral engagement. Viewers might enjoy watching VTuber content but may not take further actions such as subscribing, sharing, or providing financial support. Similarly, attractiveness may serve as an initial point of interest (e.g., an appealing voice, the characters' personality, or character design), but it may not be sufficient to sustain long-term support or loyalty. In contrast, variables such as media exposure and parasocial interaction, which reflect deeper emotional and behavioral engagement, were found to have a more substantial impact. Thus, attitude and attractiveness may play a preliminary role in drawing attention, but they are not the primary drivers of ongoing consumer behavior toward VTuber channels.

In summary, frequent media exposure, the formation of parasocial interaction between consumers and VTuber channels, and the influence of subjective norms collectively contribute to audience interaction, support behavior, and ultimately, loyalty toward VTuber channels. These findings suggest that companies or businesses leveraging VTubers in Thailand should consider content frequency and content strategies that foster media exposure, parasocial relationships, and subjective norms to ensure that consumers develop a sense of connection with VTuber channels. This finding is consistent with the study by Li (2023), which found that interaction, avatar appearance, and content quality were the main factors influencing Generation Z's decision to watch VTuber streams on Twitch. Therefore, the analysis revealed that content types such as singing performances, special events (e.g., concerts, cooking shows), and gaming streams are among the most popular with audiences, as they are frequently consumed. This indicates that VTubers who create such content are more likely to attract followers and foster audience interaction. The popularity of these content types may stem from their ability to enhance engagement and emotional connection. Singing performances and special events provide entertainment and emotional bonding, while gaming streams encourage real-time interaction between VTubers and viewers, creating a sense of closeness. Therefore, VTubers aming to grow their audience and strengthen community engagement should prioritize these content formats to increase audience participation and foster long-term loyalty to their channels. This, in turn, can drive sustained support through various engagement and monetization channels.

7. Acknowledgements

8. Suggestions for Future Research

1. Future studies should explore the emotional factors that may influence supportive behavior and loyalty, such as emotional attachment to VTuber characters and the role of familiarity in viewers' decision-making when choosing to support specific VTubers.
2. It is also recommended to expand the scope of research to other platforms such as Twitch or Bilibili, which feature different structures of audience interaction compared to YouTube. This would help provide a broader understanding of user behavior across various virtual streaming environments.

9. References

Chen, L. (2021). Virtual Influencers and Online Communities: A Case Study of VTubers on Bilibili. *Asian Online Culture, 33(1),* 45-60.

Fishbein, M. & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading*. MA: Addison-Wesley

Garcia, R. (2022). *Digital Marketing and the Role of VTubers in Modern Advertising*. Marketing Insights, 19(5), 64-78.

Horton, D., & Wohl, R. R. (1956). *Mass communication and para-social interaction.*

Li, Y. (2023). *Why does Gen Z watch virtual streaming VTube anime videos with avatars on Twitch? Online Media Global Communication, 2*(3), 379–403.

Plotter. (2022). *VTuber "ไอดอลโลกเสมือน" เทรนด์ใหม่มาแรง.* https://www.plotter.in.th/?p=25906

Rubin, A. M., Perse, E. M., & Powell, R. A. (1985). *Loneliness, parasocial interaction, and local television news viewing*. Human Communication Research, 12(2), 155–180.

Springnews Pubilc. (2022). *Analysis Thai Behavior on YouTube.* https://www.springnews.co.th/digital-tech/technology/830448

Takahashi, H. (2020). *Advances in Motion Capture Technology for Virtual Characters.*

Technology Review, 55(3), 87-99.

Thai VTubers Directory. (2024). *Vtubers Information in Thailand*. https://vtuber.chuysan.com/

TODAY Bizview. (2024). *Knowing Vtubers, the rising marketing in this era*.
https://www.facebook.com/share/v/162z3GwLD9/

White, J. (2020). *The impact of social media on society*. Academic Press.

Yamato, Y. (2018). *The Rise of Virtual YouTubers: Kizuna AI and Beyond*.
Journal of Japanese Culture, 45(2), 123-135.

Baabel Ch. (2023) Example of a VTuber from Baabel Channel
https://www.youtube.com/watch?v=0x9qrLKmIFk&t=6693s