Development of Tiktok-Based digital content for public relations of a master's program

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Abstract

This research aimed to develop a digital content set for public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform, and to evaluate its quality, user perception, and satisfaction. The sample consisted of 50 followers of the TikTok channel: ect.kmutt.official, selected through accidental sampling. The results were as follows: developed media included three infographic posters (program introduction, study plan, and teaching and learning atmosphere) and three short videos disseminated via TikTok. The results indicated that the quality of content was rated at a very good level ($\bar{X}$ = 4.56, S.D. = 0.50), and the quality of media presentation was also rated at a very good level ($\bar{X}$ = 4.67, S.D. = 0.48). In addition, the perception of the sample group was at the highest level ($\bar{X}$ = 4.80, S.D. = 0.42), and overall satisfaction was rated at the highest level ($\bar{X}$ = 4.81, S.D. = 0.40). These findings suggest that the developed digital content set was effective and suitable for practical use in program promotion on the TikTok platform via the content presented in short episodic segments, with each episode having a duration of no more than two minutes.

Keywords: TikTok platform, Digital content, Public relations, Master's program

1.Introduction

In the current digital era, public relations are an important role in effectively disseminating information, news, and knowledge to target audiences. Information technology and online media have required public relations practices to adapt to changes in people's information consumption behaviors. Effective public relations help enhance awareness, engagement, and the application of knowledge, which positively contribute to academic advancement and overall social development (Phansuathong, 2024). Digital content is a significant role in communication and public relations across all sectors, as digital media can reach a wide audience quickly and enable real-time interaction with recipients. Digital content includes various formats such as text, images, videos, and interactive multimedia. In particular, short videos have become highly popular on various social media platforms (Thongsuk, 2024; Jam et al., 2025).

TikTok is a globally popular platform with continuous growth in the number of users. Its distinctive feature lies in presenting content through short videos that are concise, engaging, and capable of capturing attention quickly while reaching a large

audience. As a result, TikTok has become a widely used tool for public relations in various industries, including education, business organizations, and government agencies. In Thailand, the primary user group of TikTok is individuals aged 18 – 24, and more than 39% of users access the platform weekly to follow news. This reflects users' trust and active engagement with content on the platform. Therefore, publicizing the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok Platform not only increases access to the target audience but also effectively promotes interaction and interest in the program (Dataset Co., Ltd., 2025).

King Mongkut's University of Technology Thonburi (KMUTT) offers a Master of Science in Industrial Education Program in Learning Technology and Mass Communication. This master's degree program focuses on developing knowledge and skills in learning digital technology and mass communication to respond to trends in digital technology and educational innovation. The program aims to produce graduates who are capable of designing, developing, and managing digital media for learning effectively. It emphasizes the development and application of technology for education and communication in the digital era, covering

educational research methodologies, seminars, research projects, and a thesis. However, compared to other programs, this program is not yet widely recognized, highlighting the need for effective public relations to increase brand awareness and generate interest among target audiences. Therefore, research on promoting the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform is essential, as it can attract high-quality applicants who align with the program's goal of producing competent and ethical graduates (Department of Educational Technology and Communications, 2021; Ahmed et al., 2024). The account ect.kmutt.official serves as a channel for disseminating news for society and the community in the form of digital media on the TikTok platform. It is managed by the Department of Educational Communications and Technology and currently has 430 followers, most of whom are students at King Mongkut's University of Technology Thonburi. As a result, the program and related media can gain greater visibility through this channel. Public relations through ect.kmutt.official enable wider access to students and individuals who are interested in the program. Based on the importance mentioned above, the researcher is interested in studying the development of a digital content package to promote the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform. This study is beneficial for public relations among students who follow the ect.kmutt.official TikTok account (2024), as it helps raise awareness of the program's promotion on TikTok and provides useful guidance for those interested in developing public relations media for various organizations in the future (Princhankol, et al., 2025).

1.1 Objectives of the study

This study on the development of TikTok-based digital content for public relations of a Master's Program aimed to achieve the following objectives:

- To develop a digital content set for the public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform.
- To evaluate the quality of digital content set

for the public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform.
- To assess the perception outcomes of the digital content set for the public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform.
- To evaluate the satisfaction of the sample group toward the digital content set for the public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform.

Expected benefits

The study on the development of TikTok-based digital content for public relations of a Master's Program was expected to provide the following benefits:

1. To serve as a public relations channel that enhances awareness and recognition of The Master of Science in Industrial Education Program in Learning Technology and Mass Communication.
2. To serve as a guideline for developing a digital content set on the TikTok platform for public relations purposes in other organizations in the future.

1.3 Research hypotheses

In the study on the development of TikTok-based digital content for public relations of a Master's Program in Learning Technology and Mass Communication, the researcher proposes the following hypotheses:

1. The digital content set for public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform was of good quality or higher.

2. The perception outcomes of the sample group toward the digital content set for public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass

Communication on the TikTok platform was at a high level or above.

3. The satisfaction of the sample group toward the digital content set for public relations of the Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform was at a high level or above.

2. Related Literature

2.1 Digital content

Digital content refers to content that is created and stored in digital formats and can be distributed through digital technologies or internet networks, such as websites, applications, and social media platforms. It includes text, images, videos, audio, and various forms of interactive media. Digital content has therefore become a core element of communication in the modern era, as users are not only recipients of information but also creators and distributors of content themselves (Lertbamrungchai & Wannapirun, 2019). In this study, digital content includes infographic media and video media.

2.2 Public relations

Public relations is an important field of media relations characterized by a broad scope of work and complex operational systems. Public relations activities enhance leadership qualities at both organizational and individual levels and foster understanding and cooperation among internal personnel as well as external publics. Therefore, public relations are highly valuable to various institutions (Krittakom, 2021).

2.3 Addie model design

The ADDIE Model of design principles is an effective virtual operation design requiring clearly defined and systematic procedures. Virtual operations can be developed using the ADDIE instructional design model. The ADDIE model is internationally recognized as an effective framework for instructional development and has been widely applied in educational research. The ADDIE model consists of five main stages: Analysis (A), Design (D), Development (D), Implementation (I), and Evaluation (E) (Thamwipat & Princhankol, 2022).

2.4 The master of science in industrial education program in learning technology and mass communication

The Master of Science in Industrial Education Program in Learning Technology and Mass Communication aims to produce graduates with strong knowledge and understanding of theoretical foundations, as well as professional skills in digital learning technology and mass communication. Graduates are expected to apply knowledge in digital technology for learning and mass communication to creatively develop learning media and organize activities in the field of mass communication. The program emphasizes the integration of knowledge into practical application through research processes and the development of professional skills, as emerging forms of work in the modern era require new skill sets. These skills involve applying knowledge to analytical thinking and problem-solving decision-making. In addition, the program plays an important role in supporting and promoting research, development, and the dissemination of knowledge and technology (Department of Educational Technology and Communications, 2021).

In addition, related research studies were reviewed to strengthen a comprehensive framework for the development of TikTok-based digital content for public relations of a Master's Program in Learning Technology and Mass Communication can effectively achieve the research objectives and be practically applied.

3. Methods

3.1 Research instruments

The instruments used in this study consisted of the following:

Experimental Instrument:

The development of TikTok-based digital content for public relations of a Master's Program.

Data Collection Instruments:

A quality assessment form for evaluating the development of TikTok-based digital content for public relations of a Master's Program.

A perception assessment form measuring the sample group's perception of the developed media.

A satisfaction assessment form measuring the sample group's satisfaction with the developed media.

3.2 Population & the sample group

The population of this study consisted of followers of the ect. kmutt.official account on TikTok totaling 430 individuals. This population was used to examine the TikTok-based digital content for the public relations of a master's program.

The sample group used in this study consisted of followers of the official ect.kmutt TikTok account. The sample was selected through accidental sampling from viewers who had accessed the media and voluntarily agreed to complete the questionnaire, totaling 50 participants. This sample size was determined based on the research-based development approach proposed by Untoroseto, D., & Triayudi, A. (2023) which recommends that field testing in the operational stage should involve no fewer than 40 participants. (Klinubon, 2014). Data collection was conducted during the first semester of the 2025 academic year.

3.3 The development process

The researcher applied the ADDIE model as a systematic framework for of the development of TikTok-based digital content for public relations of a Master's Program.

The development process consisted of five stages as follows:

Analysis: At this stage, the researcher examined the needs of the organization through discussions and consultations with relevant personnel. The organization expressed a need to promote The Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform using infographic posters and video media to be disseminated through the TikTok account ect.kmutt.official. After collecting and analyzing all relevant information, the content was reviewed by experts and the research advisor to verify accuracy before proceeding to the design stage.

Design: Based on the results of the analysis, the researcher planned and designed the digital content set for promoting The Master of Science in Industrial Education Program in Learning Technology and Mass Communication on the TikTok platform The design process focused on two main aspects - content structure and content quality - which served as guidelines for content development.

Development: The designed digital content was presented to the research advisor for review to ensure accuracy, appropriateness, and content quality. Feedback and suggestions were incorporated to revise and improve the content before implementation.

Implementation: After revisions were completed, the digital content set was published on the TikTok account ect. kmutt. official. The target audience was invited to view the content and voluntarily respond to questionnaires. The sample consisted of 50 participants selected through accidental sampling to identify potential issues and evaluate the effectiveness of the content.

Evaluation: Following the dissemination of all content, the researcher assessed participants' perceptions and satisfaction using purposive sampling. The collected data were analyzed using statistical methods, and the results were summarized to evaluate the effectiveness of the developed digital content set.

3.4 Statistical Analysis

Data analysis was conducted by calculating the Index of Item-Objective Congruence (IOC). The IOC was used to assess content validity based on expert evaluation.

Data analysis using frequency distribution, mean, and standard deviation calculation. The data were obtained from expert evaluations of content quality and media presentation, as well as from the perception and satisfaction assessments of the sample group.

4. Results: The results of the development of TikTok-based digital content for public relations of a master's program consisted of infographic and video

media.

The infographic media included three poster-style infographics presenting information on (1) an introduction to the program, (2) the study plan, and (3) the teaching and learning atmosphere as shown in Figure 1.

Figure 1. Sample of the infographic media on the TikTok platform

In addition, three video media items were developed, comprising a program introduction video with a duration of 1.09 minutes, a study plan introduction video with a duration of 1.48 minutes, and a video presenting the teaching and learning atmosphere with a duration of 1.05 minutes, as shown in Figure 2.
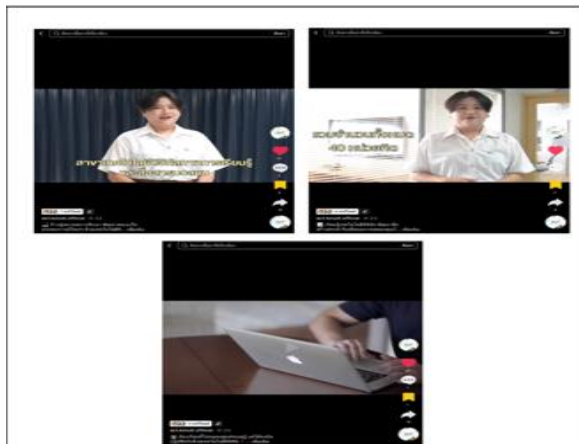

Figure 2. Sample of the video media on the TikTok platform

4.1 Results of the content quality evaluation

Table 1. Results of the content quality evaluation by experts

Assessment Items	Analysis Results	
	x̄	S.D.
1. Content Aspect	4.67	0.59
2. Language Use and Visual Presentation Aspect	4.42	0.51
3. Public Relations Aspect	4.58	0.51
Overall Summary	4.56	0.50

From Table 1, the results of the content quality evaluation of developed media indicated that the overall quality was at a very good level ($\overline{X}$ = 4.56, S.D. = 0.50).

4.2 Results of the Media Presentation Quality Evaluation

Table 2. Results of the media presentation quality evaluation by experts

Assessment Items	Analysis Results	
	x̄	S.D.
1. Design Aspect	4.56	0.53
2. Visual Aspect	4.56	0.53
3. Audio Aspect	4.89	0.33
4. Presentation Aspect	4.67	0.50
Overall Summary	4.67	0.48

As illustrated in Table 2, the results of the media presentation quality evaluation of the development of developed media revealed that the overall quality was at a very good level ($\overline{X}$ = 4.67, S.D. = 0.48).

4.3 Results of the evaluation of the sample group's perceptions

As illustrated in Table 3, the results of the evaluation of the sample group's perceptions toward the developed media on the TikTok platform, revealed that the overall level of perception was at the highest level ($\overline{X}$ = 4.80, S.D. = 0.42).

Table 3. Results of the evaluation of the sample group's perceptions

Assessment Items	Analysis Results	
	x̄	S.D.
1. Perceived that this program is a master's degree program in the field of educational technology and mass communication.	4.88	0.39
2. Perceived that this program produces graduates with theoretical knowledge, understanding, and professional competencies in learning and mass communication.	4.74	0.44
3. Perceived that this program is appropriate for individuals seeking to enhance their skills for further study or professional practice learning and mass communication.	4.78	0.42
4. *Perceived that the duration of study of* this program *is two years.*	4.80	0.45
5. Perceived that this program comprises a total of 40 credits.	4.86	0.40
6. Perceived that this program provides an academic study plan, consisting of coursework and a thesis	4.82	0.39
7. Perceived that applicants to this program are required to hold a bachelor's degree in a related field.	4.76	0.43
8. Perceived that this program emphasizes the development and application of digital technology for education and communication in the digital era, covering coursework, seminars, research projects, and a thesis.	4.78	0.42
9. Perceived that this program emphasizes online learning formats to accommodate working professionals.	4.74	0.44
10. Perceived that this program can be applied to a wide range of career pathways.	4.82	0.39
Overall Summary	4.80	0.42

4.4 Results of the evaluation of the sample group's Satisfaction

Table 4.   Results of the evaluation of the sample group's satisfaction

Assessment Items	Analysis Results	
	x̄	S.D.
1. Content aspect	4.83	0.35
2. 2 Visual and Audio aspect	4.80	0.41
3. Presentation aspect	4.81	0.41
Overall Summary	4.81	0.40

As shown in Table 4, the results of the sample group's satisfaction assessment toward the developed media on the TikTok platform indicated that the overall level of satisfaction was at the highest level ($\overline{X}$ = 4.81, S.D. = 0.40).

5. Discussion

The development of TikTok-based digital content for the public relations of a master's program comprised of three infographic posters and three video media items. The infographic posters presented an introduction to the program, the study plan, and the learning and teaching atmosphere. The video media included an introduction to the program (1.09 minutes), the study plan (1.48 minutes), and the learning and teaching atmosphere (1.05 minutes). The ADDIE Model was applied as the conceptual framework, consisting of analysis, design, development, implementation, and evaluation stages. The media were developed, reviewed, and revised based on feedback from content and media presentation experts. The finalized media were disseminated via the TikTok channel *ect.kmutt.official*, and data were collected from 50 participants selected through accidental sampling. The evaluation results were statistically analyzed. This approach is consistent with the study by Thamwipat et al. (2024) which also applied the ADDIE Model, resulting in digital media with clear content and effective presentation.

The content quality evaluation of the developed media on the TikTok platform showed a very good overall rating ($\overline{X}$ = 4.56, S.D. = 0.50). The use of infographic posters and video media contributed to concise and easily understandable content. The presentation media quality of The Development of a Digital Content Set for Public Relations of The Master of Science in Industrial Education Program in Learning Technology and Mass Communication on

the TikTok platform was rated at a very good level ($\overline{X}$ = 4.6, S.D. = 0.48), reflecting appropriate visuals, clear communication, suitable audio levels, and a concise presentation format. These findings are consistent with studies by Waiwingrob et al. (2023) and Kaewsomnues et al. (2023) which also reported a very good level of content and media presentation quality reflecting appropriate visuals, clear communication, suitable audio levels, and a concise presentation format.

The participants' perception of the developed media on the TikTok platform was rated at the highest level ($\overline{X}$ = 4.80, S.D. = 0.42), indicating effective message communication. This finding was consistent with Kittipongpisut et al. (2025) and Srisutitada et al. (2026) who also reported the highest level of participants' perception.

The participants' satisfaction with the developed media on the TikTok platform was rated at the highest level ($\overline{X}$ = 4.81, S.D = 0.40), reflecting clear, engaging content and concise presentation. This result is consistent with Ngenjareanrung et al. (2026), Idawati et al. (2026), and Tianshu & Sukumaran (2026) who also reported the highest level of satisfaction in new media usage.

6. Conclusion and Suggestions

In conclusion, the development of TikTok-based digital content for the public relations of a master's program has the systematic implementation of the ADDIE model ensured a rigorous design process. The results of the media development consisted of infographic posters presenting as well as 3 video media pieces. All materials were disseminated via the TikTok platform on the channel ect.kmutt.official. The evaluation results of the content and media presentation were at a very good level, and the evaluation results of the perception and satisfaction of the sample group were at the highest level. Therefore, the developed media can be put to practical use in program promotion on the TikTok platform via the content presented in short episodic segments with each episode having a duration of no more than two minutes.

Suggestions

The developed media on the TikTok platform can be further developed on the Metaverse to enhance program awareness and a modern image. In addition, similar digital content can be applied to undergraduate programs on TikTok and other platforms aligned with target audience interests.

Future research should examine factors influencing undergraduates' decisions to pursue graduate studies and further develop TikTok-based digital content for The Master of Science in Industrial Education Program to increase audience awareness.

7. References

1. Phansuathong, P. (2024). What is Digital PR and how is it different from traditional public relations? [Online].
Available: https://www.primal.co.th/th/marketing/what-is-digital-pr [Accessed: Dec 20, 2025].

2. Thongsuk, W. (2024). *What is content? What types are there and how can it be used effectively for brands?* [Online]. Available: https://talkatalka.com/blog/types-of-content [Accessed: Dec 20, 2025].

3. Dataset Co., Ltd. (2025). *TikTok goes beyond social media to the e-commerce battlefield.* [Online]. Available: https://www.dataxet.co/media-landscape/2025-th [Accessed: Dec 20, 2025].

4. Department of Educational Technology and Communications, Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi. (2021). *M.Ed. Program in Learning Technology and Mass Communication.* [Online]. Available: https://www.fiet.kmutt.ac.th/home/curricula/master/ect-master [Accessed: Dec 20, 2025].

5. Department of Educational Technology and Communications, Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi. (2024). *TikTok: ect.kmutt.official.* [Online]. Available: https://www.tiktok.com/@ect.kmutt.official?_t=ZS-8uhTYi6wsbg&_r=1 [Accessed: Dec 20, 2025].

6. Princhankol, P., Thamwipat, K., Rueangprat, J., Milintagad, P., & Munarjharn,P. (2025). The development of a digital content set on an online platform to promote halal restaurants

in the vicinity of King Mongkut's University of Technology Thonburi. RMUTP Research Journal Humanities and Social Sciences,10(2),1-16. https://so05.tci-thaijo.org/index.php/rmutphuso/article/view/277996/188489

7. Lertbamrungchai, K., & Wannapirun, P. (2019). "Connectivist Digital Learning via Cloud Technology to Enhance Creative Media Innovation Construction." *RMUTP Journal of Mass Communication Technology*, 4(2), pp. 44–55. https://so05.tci-thaijo.org/index.php/jmctrmutp/article/download/251871/170470

8. Krittakom, S. (2021). "The Basic Conceptual Framework of Public Relations." *Journal of Modern Learning Development*, 6(5), pp. 261–273. https://so06.tci-thaijo.org/index.php/jomld/article/view/249110

9. Thamwipat, K. & Princhankol,P. (2022). The design and development of interactive multimedia based on ADDIE model to publicize the Department of Educational Communications and Technology. The 13th Global Conference on Business and Social Sciences. https://doi.org/10.35609/gcbssproceeding.2022.1(11)

10. Untoroseto, D., & Triayudi, A. (2023). "Analysis of Blended Learning Development in Distance Learning in Variation of Borg & Gall and Addie Models." Journal La Multiapp, 4(6), 231-242. https://doi.org/10.37899/journallamultiapp.v4i6.973

11. Klinubon, S. (2014). Concepts and theories of innovation development: The Borg Model. https://www.gotoknow.org/posts/558911

12. Thamwipat, K., Namaso, K., & Princhankol, P. (2024). A synthesis of research studies on public relations multimedia utilization within an educational institute during the COVID-19 pandemic: A comparative analysis of textual and data visualization approaches. Kasetsart Journal of Social Sciences, *45*(2), 433–442. https://so04.tci-thaijo.org/index.php/kjss/article/view/272011

13. Thamwipat, K., Princhankol, P., Maneewan, S.,Pintong, M. & Eaksombun, T. (2024). Development and Assessment of Review Clips by Disabled Students for a Teenage Soul Healing Program on the TikTok Platform. Studies in Media and Communication,12(3), 168-176 https://doi.org/10.11114/smc.v12i3.6896

14. Waiwingrob, P., Thamwipat,K. & Princhankol, P. (2023). Active learning extracurricular activities using digital content to raise awareness of Thai arts and culture among undergraduate students. Humanities, Arts and Social Sciences Studies, 23(3), 642–655. https://doi.org/10.14456/hasss.2023.54

15. Kaewsomnues, A., Jirachai, P., & Thamwipat, K. (2023). Development of an e-exhibition in conjunction with a game-based learning communication activity. Science, Engineering and Health Studies, *17*, 23040014. https://doi.org/10.69598/sehs.17.23040014

16. Kittipongpisut, A., Princhankol, P. & Thamwipat, K. (2025). Digital Content on Google Sites for Course Subjects to Enhance Digital Literacy through Self-Directed Learning for Thai Students. International Journal of Learning, Teaching and Educational Research,24(5), 23-39, https://doi.org/10.26803/ijlter.24.5.2

17. Srisutitada, P., Thamwipat, K. & Princhankol, P. (2026). The Development of a Metaverse Exhibition with Communication Activities to Enhance Digital Information Literacy on GO Green via the MCOT Throughout Thailand Facebook Page. Studies in Media and Communication, 14 (1,140-152. https://redfame.com/journal/index.php/smc/article/view/7970/7047

18. Ngenjareanrung, C., Princhankol, P. & Thamwipat, K. (2026). Hybrid Exhibition for Departmental Public Relations through Chronological Storytelling of Undergraduate Award-Winning Works. Studies in Media and Communication, 14(1), 243-254. https://redfame.com/journal/index.php/smc/article/view/7979/7068

19. Idawati, Hulaikah, M., & Bakhtiar, M. (2026). Design of seamless learning model to improving digital literacy skill in higher education. Perinatal Journal, 34(1), 625-634 https://doi.org/10.57239/prn.26.03410066

20. Tianshu, W. & Sukumaran, S. (2026). Integrating

AI-based image generation in design education: A mixed-methods quasi-experimental study on academic performance improvement. Perinatal Journal, 33(1), 210-218 https://doi.org/10.57239/prn.25.03310028

21. Jam, F. A., Ali, I., Albishri, N., Mammadov, A., & Mohapatra, A. K. (2025). How does the adoption of digital technologies in supply chain management enhance supply chain performance? A mediated and moderated model. Technological Forecasting and Social Change, 219, 124225.

22. Ahmed, F., Naqshbandi, M. M., Waheed, M., & Ain, N. U. (2024). Digital leadership and innovative work behavior: impact of LMX, learning orientation and innovation capabilities. Management Decision, 62(11), 3607-3632.