Effect of Archival-based Content on Instagram Engagement: A Study on @arsipugm

INTISARI

Penelitian ini bertujuan untuk menguji efek jenis unggahan berbasis arsip terhadap engagement Instagram di sebuah lembaga kearsipan di Indonesia. Penelitian ini merupakan penelitian kuantitatif. Data diperoleh dari log unggahan Instagram berupa jumlah likes dan comments, selama Februari 2023 hingga Juli 2023. Terdapat 63 unggahan pada rentang waktu tersebut. U nggahan tersebut dikategorikan menjadi lima kategori meliputi (a) sapaan kepada pengikut; (b) materi arsip; (c) berita harian; (d) promosi layanan; dan (e) pengetahuan mengenai kearsipan. One-way ANOVA digunakan untuk menganalisis data. Hasil penelitian mengungkapkan bahwa ada perbedaan yang signifikan pada skor rata-rata likes di antara jenis unggahan. Di sisi lain, jenis tulisan tidak berpengaruh signifikan terhadap skor rata-rata comments. Penerapan prinsip-prinsip optimasi media sosial disarankan untuk meningkatkan engagement Instagram. Studi ini menawarkan pendekatan yang terorganisir bagi lembaga kearsipan untuk meningkatkan engagement-nya di media sosial.

ABSTRACT

This study aims to examine the effect of archival-based content types on Instagram engagement in an archival institution in Indonesia. This is quantitative study. Data were obtained from the Instagram log content included like and comment number, February to July 2023. There were 63 contents in that period. The contents were categorized into five categories: (a) greeting to followers; (b) archival material; (c) daily news; (d) promoting the services; and (e) archival knowledge. One-way analysis of variance (ANOVA) was used to analyze the data. The results revealed that there was a significant difference on “likes” mean score among the contents types. On the other hand, contents types had no significant effect on “comments” mean score. Implementation of principles of social media optimization is suggested to enhance the Instagram engagement.

KEY WORDS

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INTRODUCTION

Social media has a big impact on the archival outreach and marketing strategy. It helps the archival institutions to interact with their audience, user needs analysis, and satisfaction assessment (AlAwadhi & Al-Daihani, 2019: 228; Bountouri, 2017: 60). Social media tools are also necessary for the archival discovery environment (Washburn et al., 2013: 5). Social media is used to strengthen the existing information platform such as websites (Yavetz & Aharony, 2020: 445). Social media was involved in the institution's perspective, so the interaction and knowledge sharing with the community are also embedded in the institution's responsibilities (Fong et al., 2020: 1).

The archival institution can create objectives for measuring social media performance in marketing. For example, the number of likes, shares, and comments on contents can be measured and utilized as an objective criterion (Lam et al., 2019). The results of social media evaluation could help institutions focus on meaningful interactions. By examining engagement patterns specifically within the context of an archival institution, the study could uncover unique patterns and behaviors that differ from other types of organizations.

We observed the Instagram account of Arsip UGM, one of the leading archival institutions in Indonesia. Instagram enables users to capture, apply filters, and share photos also on other social networks. Studying Instagram will give us a perspective on how images and videos are used in a variety of communication contexts, such as marketing, social interactions, and surveillance (Serafinelli & Serafinelli, 2018: 2). A similar study conducted by Prabowo (2021: 88), reported some improvements on social media management are necessary, especially on Instagram. Failure management on social media means taking archives away from the people (Mukwevho & Ngoepe, 2018: 374).

Marketing with social media in the archival institution revitalizes historical narratives for a modern audience. Through platforms like Instagram and Facebook, these institutions can share curated glimpses of their collections, sparking global engagement and fostering appreciation for cultural heritage. By merging tradition with digital innovation, social media becomes a powerful tool for expanding accessibility and relevance in the preservation of history.
We explored the potential of archival-based content types on Instagram engagement in an archival institution in Indonesia. Archival-based content in this study refers to content posted on an archival institution's Instagram account that draws from the institution's historical records and collections. This content typically includes photographs, documents, artifacts, or information related to the institution's archival holdings. It aims to share historical knowledge, promote the institution's services, and engage the online audience with historical and cultural heritage. Archival-based content serves as a means to connect the institution with its followers on social media, fostering a sense of community, knowledge sharing, and engagement with archival materials and history.

Our study offers practical insights into how Instagram as a social media platform is able to engage their audience. By identifying which types of archival-based content are most effective in driving engagement, the study could guide institutions in developing content strategies that resonate with their followers. Evaluating likes and comments on an archival institution's Instagram account is essential for gauging audience engagement, identifying relevant content, fostering community, collecting valuable feedback, measuring the impact of social media efforts, documenting contemporary culture, making data-driven decisions, benchmarking against industry standards, optimizing resource allocation, and seizing educational opportunities (Mukwevho & Ngoepe, 2018: 376). These metrics serve as direct indicators of content effectiveness, audience interest, and community interaction, guiding institutions in their mission to preserve and share history while actively engaging with their online audience.

**Research Questions**

To guide this study, we presented these following two research questions.

- **RQ1** = Do content types significantly impact “likes” in the archival institution Instagram account?
- **RQ2** = Do content types significantly impact “comments” in the archival institution Instagram account?

**Research Objectives**

For the two RQs above, the following hypotheses are formulated.

- **RH1** = A significant difference in the mean scores of “likes” exists among different content types.
- **RH2** = A significant difference in the mean scores of “comments” exists among different content types.
METHODS
We used quantitative methods. Quantitative data in the analysis represent Instagram metrics (likes' and comments' number). We collected the likes and comments data from @arsipugm account contents in six months (February-July 2023) with 63 contents with 2137 likes and 31 comments. The number of contents each month can be seen in Table 1. From those contents, we categorized them into five categories:

(a) Greeting to followers. This category includes posts where archival institutions greet and acknowledge their followers, often expressing gratitude for their support. These posts aim to build a sense of community and engagement with the audience. Scope includes welcome messages, milestone celebrations, and holiday greetings.

(b) Archival material. Posts in this category feature actual archival materials, such as historical documents, photographs, manuscripts, or artifacts from the institution's collections. The focus is on showcasing and providing insights into the archives' holdings, making historical resources accessible to the public.

(c) Daily news. Daily news posts involve sharing current events, announcements, or updates related to the archival institution or the archival field in general. This category aims to keep followers informed about recent developments, exhibitions, programs, or any relevant news.

(d) Promoting the services. Posts in this category promote the various services and activities offered by the archival institution, such as exhibitions, workshops, educational programs, or research assistance. These posts aim to increase awareness and participation in these services.

(e) Archival knowledge. This category is dedicated to educational content related to archives and archival practices. It includes posts that provide historical context, archival tips, insights into preservation techniques, or explanations of archival terminology. The goal is to enhance the audience's understanding of archival work and history.

Those categorizations were used based on a study conducted by Bountouri and Giannakopoulos (2014: 514) and Prabowo (2021: 98). We tabulated the likes and comments data based on those categorizations above. The number of the contents types are presented in Table 2. Our study conducted a statistical analysis to assess the differences in engagement (likes and comments) among the five categories of archival-based posts on Instagram. We employed a one-way analysis of variance (ANOVA) to determine whether there were statistically
significant differences in engagement levels among these categories. ANOVA helps establish whether there are overall group differences, but to pinpoint which specific groups (categories) differ from each other, we performed post-hoc tests. We used Hochberg's GT2 test because the sample sizes were different. Post-hoc tests are follow-up analyses conducted after an ANOVA to identify where the significant differences exist. In our case, we used post-hoc tests to compare the engagement levels between the different categories of archival-based content. These tests allowed us to identify which specific pairs of categories had the lowest and highest levels of engagement. This analysis provides valuable insights into which types of content perform particularly well or poorly in terms of audience interaction on Instagram accounts. Data analysis was conducted using IBM SPSS Statistics software.

**Theoretical Framework**

The utilization of social media platforms in archival institutions has become a prominent avenue for advancing the dissemination of archival contents and engaging with diverse audiences. These platforms include Facebook, YouTube, and blogs (Bountouri & Giannakopoulos, 2014: 510). Archival institutions have strategically adopted social media services to amplify the reach of their generated content, while archivists employ these platforms to advocate for significant information (Crymble, 2010: 125). However, integrating social media transcend mere dissemination; it encompasses a multifaceted approach that encompasses engagement, participation, education, and response to critical events.

In the context of local archival centers, a study focusing on the National Archives of Japan (NAJ) conducted by Rahman & Shoeb (2020: 118) reveals the

![Figure 1. Research Variable](Source: Designed by the Authors, 2023)
widespread use of social media, even at the prefecture and municipal levels, to provide rudimentary details about archival facilities. To enhance user engagement and understanding, a novel interactive archival literacy framework is introduced, which aims to foster synergy among users, archive centers, and social media tools (Rahman & Shoeb, 2020: 118). This innovative framework recognizes the potential of social media in involving the public as active participants in the archival discourse, thereby bridging the gap between institutions and audiences.

The role of social media as an engagement tool is further exemplified by the Special Collection Library (SWC), which effectively reshaped its interaction with the broader public beyond the research community (Weaver, 2022: 202). By initiating a comprehensive social media outreach program, the SWC established meaningful connections with individuals who were not traditionally part of the research sphere (Weaver, 2022: 202). The success of this initiative lies not only in reframing interactions but also in nurturing substantial engagement with non-researcher audiences. Weaver's study employs both qualitative and quantitative methods to evaluate the program's outcomes, yielding insights that hold the potential to guide other archival entities in their future social media endeavours (Weaver, 2022: 202).

The significance of online visibility for archival institutions is highlighted by Maluleka et al. (2023: 88), who asserts that in the era of the fourth industrial revolution, establishing a digital presence is crucial to fulfill institutional mandates and enable public access to resources (Maluleka et al., 2023: 88). Similar findings are presented by Mukwevho and Ngoepe (2018: 374) in their study of South African public archives, underscoring how social media platforms bridge the gap between archives and younger audiences (Mukwevho & Ngoepe, 2019: 374). These studies underscore the evolving role of social media in enhancing accessibility, communication, and engagement, especially among demographics traditionally distanced from archival resources.

Critical events also underscore the adaptability of archival institutions to leverage social media platforms effectively. Kosciejew's (2022: 732) comparative analysis of international responses by national archives during the COVID-19 pandemic highlights the importance of maintaining online communication channels even during the crisis (Kosciejew, 2022: 732). This adaptable nature showcases how social media platforms serve as essential tools for navigating unforeseen challenges and sustaining community engagement. In a similar vein, Paliienko (2021: 25)
examines Ukrainian archival institutions, emphasizing the transformative potential of social media in shaping communication strategies, preserving historical memory, and promoting cultural heritage (Paliienko, 2021: 25).

The participatory dimension of social media engagement is evident in the works of Wagner (2017: 274), and Iacovino (2015: 29). Wagner's exploration of open photographic archives emphasizes how user contributions on social media platforms infuse subjectivity and engagement into institutional discourse, bridging the personal and institutional voices. Iacovino's advocacy for participatory archives resonates with the digital age, illustrating how social media empowers record subjects to shape their narratives within archives, thus preserving collective memory and cultural identity (Iacovino, 2015: 29). Collectively, these studies illuminate how social media amplifies the impact of archival institutions by involving users as active contributors.

The integration of social media into archival education is explored by Wright and Benoit (2019: 85), who demonstrate its role in shaping curricula for archivists within digital learning environments. Applying andragogy theory, their research showcases how platforms like social media enhance professional development and ongoing learning for archivists. This educational aspect underscores the potential of social media not only for communication but also for knowledge dissemination and skill enhancement within archival education.

Within social media, audience engagement is crucial. Engagement in this study refers to the number of likes and comments in the Instagram account observed. Likes and comments are essential engagement metrics that marketers must use as KPIs. A "creating" engagement behavior has been identified as comments, whilst "liking" has been classed as "contributing." Likes and comments are used to assess if a “product” has met certain marketing objectives, such as raising awareness, and they also show what kinds of images or videos resonate with the audience (Munoz & Towner, 2021: 516).

In conclusion, the multifaceted role of social media within archival institutions is illuminated by a collective body of research. This body of work reinforces the necessity of robust online presence to meet institutional mandates, bridge generational gaps, and navigate unforeseen crisis. The participatory nature of social media engagement emerges as a central theme, empowering users to contribute actively to archival discourse while nurturing a sense of collective memory. Beyond engagement, the integration of technology, especially...
social media platforms, extends to the educational sphere, fostering continuous learning and skill development among archivists. In totality, these studies collectively emphasize the transformative power of social media, positioning it as a vital instrument that enhances engagement, facilitates accessibility, and refines communication within archival institutions, all within the dynamic context of the digital era.

RESULTS

Table 1 shows that the total contents in each month was lack of consistency. However, the number of likes and comments per month sometimes were not influenced by the number of contents. The amount of contents in July was the lowest. However, in terms of likes and comments, it was higher than February, March, and May.

Figure 2 shows the average of content engagement. The mean score of likes ranged from 18.67 to 60.58, and the range of comment mean score was 0.00 to 2.20. Archival knowledge achieved the highest likes mean score, while information related to office affairs was the opposite. In the comments section, promoting the services achieved the highest mean score, and again, information related to office affairs was the opposite.

Table 2 shows the difference of content likes and comments across content types. The average of likes was 33.92 (SD = 27.81), and the average of comments was 0.49 (SD = 1.60). The ANOVA results revealed a significant difference in content likes among content types with F = 7.35, p = <0.001. Post-hoc test with Hochberg GT2 revealed that “promoting the services” obtained

Table 1

<table>
<thead>
<tr>
<th>Month*</th>
<th>Total</th>
<th>Like</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>February</td>
<td>9</td>
<td>298</td>
<td>33.11</td>
</tr>
<tr>
<td>March</td>
<td>7</td>
<td>203</td>
<td>29.00</td>
</tr>
<tr>
<td>April</td>
<td>15</td>
<td>507</td>
<td>33.80</td>
</tr>
<tr>
<td>May</td>
<td>14</td>
<td>317</td>
<td>22.64</td>
</tr>
<tr>
<td>June</td>
<td>12</td>
<td>455</td>
<td>37.92</td>
</tr>
<tr>
<td>July</td>
<td>6</td>
<td>357</td>
<td>59.50</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>2,137</td>
<td>33.92</td>
</tr>
</tbody>
</table>

*Year of study = 2023

Source: Primary Data Analysis, 2023.
significantly higher likes than “greeting followers”, and “archival knowledge” obtained significantly higher likes than “greeting followers” and “Archival material”. The results suggested that the social media administrator should post more on promotion and archival knowledge-based contents to achieve higher likes. However, no significant difference in content comments was found across content types. Therefore, RH1 was supported and RH2 was not supported.

Table 3 shows the effect size for likes and comments. The effect size for like indicates a relatively large effect size (eta squared $\eta^2 = 0.34$). An effect size of 0.34 is considered substantial, signifying that the choice of content category has a meaningful impact on the number of likes received. In practical terms, it suggests that certain content types generate significantly more likes than others. While for the comments' effect size, although the p-value is not significant, there is a moderate effect size (eta squared $\eta^2 = 0.11$). While the result is not statistically significant at the conventional $p < 0.05$ threshold, the moderate effect size suggests that there might be some meaningful differences in comment counts across content types, although they did not reach statistical significance.
Discussions

The findings of this study shed light on the dynamics of audience engagement with archival-based content on Instagram. These results have important implications for both the practical strategies employed by archival institutions on social media and the theoretical understanding of social media's role within the archival landscape.

The RQ1 results revealed that there was a significant difference in content likes among content types. It confirms the significance of content categorization in shaping audience engagement on social media. The substantial effect size ($\eta^2 = 0.34$) for likes indicates that specific content categories are more successful in...
eliciting likes from the audience. Specifically, "promoting the services" and "archival knowledge-based" content outperformed "greeting followers" and "Archival material" in terms of likes. This suggests that users on Instagram are more inclined to express their appreciation through likes when they encounter content related to promotional activities or archival knowledge.

Our results regarding the high score on archival knowledge-based contents supported Mukwevho and Ngoepe (2018: 374) findings that suggested the social media of archival institutions should promote the archive knowledge and ensure the accessibility and visibility of archival services. In the library institution context, library programs and general information had a small effect on social media engagement. Our findings aligned with the study conducted by Bountouri and Giannakopoulos (2014: 513) revealed that the user preferred information regarding the service, archival material, and promotion to an event. However, in the same study, they said that the users also like the daily news on the archival office. Photos of daily news of the institution were also favored by the audience (Joo et al., 2020: 268). It was in contrast with our findings that information related to office affairs obtained the lowest score. Another contrary finding was also revealed by Bountouri and Giankopoulos (2014: 513), who said the followers did not like the archive's knowledge-based contents. Further studies are necessary to reconcile those contrary findings.

Emotionally inspiring messages content achieved high engagement (Joo et al., 2018: 940). In our findings, the archival institution used these messages in the quotes section, instead of in the picture or video content. Involving new types of content and learning broader experiences regarding engagement strategies.

A study by Lam et al. (2022: 112) found that Instagram tends to achieve low user engagement and notably low user acceptance in promotional tools. Gołąb-Andrzejak (2022: 3028) reported that the social media audience engagement rate is probably affected by content frequency, media type, hashtags, etc., thus indicating the institution's actual social performance. Our previous work revealed a lack of administrator's interaction with the commentator, it probably affected the number of engagements (Prabowo, 2021: 88).

"Archival material" contents which were contented the most frequently were not favored by the viewers. It means that the administrator should make the various content types anymore. The content number in a month is also inconsistent. The timetable schedule for content is necessary in this case.

The RQ2 results revealed that no significant difference in content
comments was found across content types, despite a moderate effect size ($\eta^2 = 0.11$). While the p-value did not reach conventional significance levels, the effect size implies that content categories might influence comment counts to some extent. However, these differences did not emerge as statistically significant in this study. There are several reasons why there is not a discernible difference between comments on different types of content on an archival institution's Instagram account, including a combination of audience behavior, content characteristics, engagement culture, and a lack of features that promote commenting (Munoz & Towner, 2021: 516). Further studies related to the factors affecting the number of comments are necessary to uncover this issue.

**Implications**

This study offers both practical and theoretical implications. These are:

1. **Practical Implications:**
   
   First, content strategy optimization. The results suggest that the type of content significantly influences the number of likes received. Practical implications include the need for the social media administrator of the archival institution to prioritize and focus more on "promoting the services" and "archival knowledge-based" content to achieve higher likes. This informs content strategy decisions, helping the institution allocate resources effectively. Rossmann and Young (2015: 529) suggested the five principles of social media optimization (SMO) to enhance engagement include (1) create shareable content; (2) make sharing easy; (3) reward engagement; (4) proactively share; and (5) encourage reuse.

   Second, audience engagement enhancement. Understanding which content types are more engaging can guide the creation of posts that resonate with the audience. By emphasizing content that generates higher engagement, the institution can foster a stronger connection with its followers, potentially increasing the reach and impact of its archival mission. The widespread adoption of social media platforms that prioritize visual content over word has increased the creation and consumption of visual content on social media, which has contributed to the visual acculturation of users (Dhanesh et al., 2022:1). Enhancing engagement in the era of visual-based content is necessary.

2. **Theoretical Implications:**

   First, content typology in Instagram. This study contributes to the theoretical understanding of content typology on Instagram, particularly within the context of archival institutions. It highlights that different categories of content have varying levels of appeal to the audience, demonstrating the importance of content categorization and its influence on engagement.
Second, digital engagement metrics. The study underscores the significance of likes and comments as metrics for measuring digital engagement on Instagram. It adds to the theoretical understanding of these metrics, showing that while likes are influenced by content types, comments might not exhibit the same sensitivity. This nuanced perspective contributes to the broader discussion on the interpretation of digital engagement metrics.

Third, content and engagement research. The findings advance the theoretical framework for research on content and audience engagement in the digital era. They encourage scholars to delve deeper into the reasons behind these engagement patterns, exploring factors such as audience preferences, content relevance, and digital storytelling strategies.

**CONCLUSIONS**

We explored the effect of archival-based content types on Instagram engagement in an archival institution. The findings revealed that the content types affected the significance difference of like with promoting the services- and archival knowledge-based contents achieved the highest like number, while daily news-based contents were the opposite. To enhance Instagram content engagement, it is crucial to maintain consistency in the content schedule, ensuring a steady flow of content that keeps the audience engaged. Alongside regular content, consider diversifying the content types, for example, with inspiring messages, fostering a deeper emotional connection. Embracing an effective social media optimizer can further elevate the strategy, optimizing content timing, hashtags, and content to maximize reach and interaction.

Besides the contributions of this study, it has some limitations. First, categories and categorization of content types were conducted by the researchers. It probably biases because different researchers might interpret and categorize contents differently based on their perspectives, assumptions, or personal biases. This could lead to skewed results that do not accurately reflect the true nature of the contents. Developing explicit guidelines for categorizing different types of contents, which provide specific criteria for placing contents into different categories, will help ensure consistency in categorization across researchers.

Second, the study scope is only in an archival institution. The findings might not be easily generalizable to other types of organizations. The dynamics of social media engagement can vary significantly across different industries, sectors, and sizes of organizations. Involving various institutions includes a diverse range of organizations potential to gain a more
A comprehensive understanding of the effect of archival-based content on Instagram engagement.

Third, the time range of observed contents was relatively short. A short time frame for observing social media content might not capture the full spectrum of engagement patterns and trends. Extend the observation period for the study to cover a more substantial timeframe. This will allow future studies to capture various contents influencing the engagement.

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