



The Impact of Digital Strategies on Public Engagement: Analysis of the Romanian Government's Facebook Activity (2020-2024)

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ENG Abstract: This study examines the Romanian Government's utilization of Facebook as a digital engagement instrument between 2020 and 2024, with a particular emphasis on major occurrences such as the COVID-19 pandemic and national elections. By analyzing data from Fanpagekarma.com (the main data source of this research) –including metrics such as post frequency, audience interactions (likes, comments, shares), and sentiment –the research evaluates the efficacy of digital strategies in fostering public engagement. The findings illustrate that Facebook played an important role in facilitating communication during pivotal periods, with heightened engagement during the pandemic reflecting the public's demand for timely and transparent information. Results of the sentiment analysis indicate that content evoking positive emotions, particularly messages of care and empathy, was instrumental in maintaining public trust. However, after the initial crisis stabilized, engagement levels declined, suggesting a need for more adaptive communication strategies. This study contributes to the existing literature on digital governance by highlighting the impact of social media on government-citizen relations, emphasizing the importance of tailoring communication strategies to evolving public needs and utilizing emotionally resonant content to sustain trust. These insights provide practical implications for governmental communication, particularly in times of uncertainty and crisis.

Keywords: digital engagement, government communication, Facebook, public trust, sentiment analysis.

ES El impacto de las estrategias digitales en el engagement público: análisis de la actividad en Facebook del Gobierno de Rumanía (2020-2024)

Resumen: Este estudio examina la utilización de Facebook por parte del Gobierno de Rumanía como instrumento de engagement digital entre 2020 y 2024, poniendo especial énfasis en acontecimientos relevantes como la pandemia de la COVID-19 y las elecciones nacionales. Mediante el análisis de datos provenientes de Fanpagekarma.com (la principal fuente de información de esta investigación) –incluyendo métricas como la frecuencia de publicaciones, las interacciones de la audiencia (me gusta, comentarios, compartidos) y el sentimiento– se evalúa la eficacia de las estrategias digitales para fomentar el engagement público. Los hallazgos demuestran que Facebook desempeñó un papel fundamental en la facilitación de la comunicación durante períodos críticos, evidenciándose un aumento en el engagement durante la pandemia que refleja la demanda de información oportuna y transparente por parte del público. Los resultados del análisis de sentimiento indican que el contenido que evocaba emociones positivas, en particular mensajes de cuidado y empatía, fue determinante para mantener la confianza pública. Sin embargo, una vez estabilizada la crisis inicial, se observó una disminución en los niveles de engagement, lo que sugiere la necesidad de implementar estrategias de comunicación más adaptativas. Este estudio aporta a la literatura existente sobre gobernanza digital al resaltar el impacto de las redes sociales en las relaciones gobierno-ciudadanos, subrayando la importancia de adaptar las estrategias comunicativas a las necesidades públicas en constante

evolución y de utilizar contenido emocionalmente resonante para sostener la confianza. Estas conclusiones tienen importantes implicaciones prácticas para la comunicación gubernamental, especialmente en contextos de incertidumbre y crisis.

Palabras clave: engagement digital, comunicación gubernamental, Facebook, confianza pública, análisis de sentimiento.

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1. Introduction

The digital transformation of public communication has redefined the relationship between governments and citizens, creating direct channels for interaction and participation. Social media platforms, particularly Facebook, have become indispensable tools for governmental communication, enabling the rapid dissemination of information in real time. This capacity is especially critical during crises, when the need for accurate, timely, and transparent communication becomes paramount for maintaining public trust and addressing citizens' concerns (Bertot, Jaeger, & Hansen, 2012).

This study focuses on the digital strategies employed by the Romanian Government on its official Facebook page between 2020 and 2024, a period marked by significant challenges such as the global pandemic caused by the SARS-CoV-2 virus and national elections. These events tested the government's ability to engage with citizens, necessitating the effective utilization of digital tools to maintain transparency and disseminate vital information. By analyzing data on public engagement –as measured through the number of likes, comments, and shares– and performing sentiment analysis on the posts, this research aims to clarify the dynamics of digital interaction between the government and the public during critical moments.

While Facebook served as a crucial tool for informing the public, it also mirrored societal sentiment, capturing shifting attitudes and emotions in response to government actions. This analysis, based on data from Fanpagekarma.com, evaluates not only the frequency and nature of posts, but also their overall sentiment and the extent to which it resonated with the audience. The study's findings offer detailed insights into the efficacy of digital communication strategies and their influence on public trust and engagement.

By examining a four-year span, this research contributes to understanding how digital platforms can shape government-citizen relationships. The Romanian Government's use of Facebook is set within the wider context of global trends in digital governance, where online communication is a primary mechanism for maintaining dialogue and encouraging civic participation (Lovejoy & Saxton, 2012; Mergel, 2013). Combining both quantitative and qualitative insights, this analysis offers a comprehensive perspective on the digital strategies that support public engagement during periods of uncertainty.

2. Literature review

The rise of digital communication has significantly impacted traditional models of governance and engagement, giving governments new ways to connect with citizens. Facebook and other social platforms are now essential for sharing updates and gathering feedback, transforming transparency and public participation (Bertot, Jaeger, & Hansen, 2012). Social media is increasingly used for crisis management, policy communication, and two-way engagement (Mergel, 2013).

A key element of this transformation is real-time interaction, which boosts transparency and accountability. Scholars have emphasized that social platforms enable governments to establish responsive and open communication channels, crucial for sustaining public trust (Bertot et al., 2012; Lovejoy & Saxton, 2012). During crises, this function becomes even more critical, as clear and credible communication can mitigate public anxiety. Mergel (2013) notes that governments should adopt data-driven and flexible approaches to meet the evolving demands of digital public discourse.

The emotional tone of government messages on social media also matters for public engagement. Emotional content (positive or negative) often elicits higher engagement (Tasente, Butacu, et al., 2024). Positive sentiments –such as hope, trust, and joy– appeal to the public's desire for confidence in official actions (Thelwall et al., 2010). On the other hand, negative emotions (e.g., anger and frustration) can trigger engagement in debates or discussions (Stieglitz & Dang-Xuan, 2013). Strategically employing emotional appeals helps governments not only to inform but also to connect with citizens at a more personal level.

During the global COVID-19 pandemic, governments worldwide turned to social media to address public concerns and deliver timely updates on health measures (Tasente, Rus, et al., 2024). Evidence shows that empathy in communication can lessen public fear and foster trust in institutions (Jiang, Luo, & Kulemeka, 2016). Graham and Avery (2013) found that governments practicing transparent and supportive messaging during uncertainty managed to maintain public confidence. This underscores how the manner of communication –including its emotional tone– can significantly shape public perception.

Moreover, the frequency and consistency of government posting is important for understanding how digital strategies affect public engagement. Studies show that regular and predictable posting schedules are more likely to sustain audience interest (Lovejoy & Saxton, 2012). Mergel (2013) posits that effective digital communication requires balancing informative content with timely, relevant updates. Citizens tend to engage more with content that addresses pressing current events or public issues, highlighting the need for adaptive communication (Heeks & Bailur, 2007).

Targeted thematic campaigns on critical topics (e.g., public health or civic education) can also boost engagement. Well-designed campaigns capture attention and encourage long-term public involvement (Avery & Graham, 2013). During the pandemic, many governments used social media for health messaging, offering guidance on safety and countering misinformation. Such initiatives often led to higher engagement, showing the impact of specific, issue-focused communication (Jiang et al., 2016).

Additionally, visual content (images, videos, infographics) is crucial for enhancing posts' effectiveness. Research shows that including multimedia can significantly raise engagement levels, as it simplifies complex information (Landsverk & Del Bosco, 2021). This is especially relevant during crises, when the public requires transparent and easy-to-understand information. Visuals allow for efficient communication and help governments reach a broader audience.

In summary, a blend of emotional tone, consistent posting, and visually engaging content is essential for effective government communication on social media. By focusing on these aspects, governments can improve public engagement, ensuring messages resonate with citizens and build trust. This study extends these views by examining the Romanian Government's use of Facebook (2020–2024), offering detailed insights into how digital strategies shaped public engagement during significant national and global events.

3. Research Methodology

This study examines the Romanian Government's Facebook communication strategies from January 1, 2020, to October 6, 2024. The main research question explores how audience engagement and sentiment evolved in response to government posts and identifies any temporal or thematic patterns. All analyses were performed in RStudio, allowing efficient data manipulation, sentiment analysis, and visualization.

3.1. Data Collection and Preparation

Data was obtained from Fanpagekarma.com –a social media analytics platform– and included post frequency, engagement metrics (likes, comments, shares), reaction types (Love, Wow, Anger, etc.), and fanbase size. Because the study was longitudinal, the data were organized by year, month, and day to capture temporal changes in audience behavior. Posts were classified accordingly, enabling an exploration of patterns tied to events like the COVID-19 pandemic or elections.

Minimal data transformation preserved original metrics. Date-related variables were processed using `lubridate` (Spinu et al., 2023) for consistency, facilitating the analysis of engagement over time.

3.2. Fanbase Growth and Audience Interaction

One focus was the fanbase expansion over the study period. By tracking follower counts, this research linked major changes to relevant political or social events. This approach highlighted times of increased or decreased public interest in government communications.

3.3. Engagement and Posting Patterns

The research also assessed how posting frequency correlated with audience engagement. Monthly post counts revealed content delivery patterns and pinpointed busy periods. These fluctuations were then analyzed to determine their effect on engagement.

The Engagement Rate (ER) was computed as the ratio of interactions (likes, comments, shares) to the total number of fans. This metric gauges how successfully posts resonated with the public, capturing both high and low engagement points across time.

3.4. Sentiment Analysis

Sentiment analysis was central to uncovering the emotional tone of the Romanian Government's posts. Posts were labeled positive or negative, and emotions such as joy, anger, or fear were identified via the NRC Lexicon, accessed through `textdata` (Hvitfeldt & Silge, 2024) and `tidytext` (Queiroz et al., 2024).

This step clarified evolving communication styles, particularly around important national events. It also showed how shifts in tone –from positive to negative– affected audience reactions. Sentiment scores were calculated at the sentence level using the `sentimentr` package (Rinker, 2021), deepening insights into each post's emotional content.

3.5. Temporal Dynamics of Engagement

Finally, the research assessed various thematic campaigns initiated by the Romanian Government. Posts were identified by keywords related to policy or initiatives, enabling an in-depth comparison of engagement metrics (reactions, comments, shares). The outcomes clarified which campaigns generated the strongest public response, guiding recommendations for future digital strategies.

3.6. Evaluation of Thematic Campaigns

The research also focused on thematic campaigns launched by the Romanian Government during the study period. Specific posts were identified by keywords related to government initiatives, allowing for an in-depth comparison of engagement metrics (e.g., reactions, comments, shares). This analysis helped to determine which campaigns had the most significant impact on public engagement.

By comparing these posts with others, the research provided a nuanced understanding of what types of messages were most successful in generating public interest and interaction. The insights derived from this campaign analysis can inform future digital strategies, particularly regarding the types of content that resonate with the audience.

3.7. Methodological limitations

One limitation of this study is the exclusive reliance on data from Fanpagekarma.com. This single-source approach restricts the potential for triangulation with other social media analytics or offline data, which could offer richer perspectives on governmental communication and audience responses. Future research might integrate multiple data sources for a more comprehensive analysis.

4. Results

Analysis of fanbase trends (2020–2024) shows consistent growth with periods of rapid expansion. In 2020, followers rose from 78,749 to 155,648, a dramatic jump correlated with the COVID-19 outbreak, as the public sought official updates. (see **Figure 1**).

4.1. Fanbase Growth and Fluctuations

In 2020, the page started with a minimum fan count of 78,749, growing to a peak of 155,648 by the end of the year, reflecting a significant expansion. This sharp increase is likely correlated with the onset of the COVID-19 pandemic, during which the government played a central role in disseminating critical information to the public. Globally, people turned to official communication channels for updates, and Facebook became an essential platform for the rapid transmission of governmental measures and recommendations.

In 2021, the fanbase grew from 155,676 to 270,211, nearly doubling the previous count, again reflecting the high interest in pandemic management and vaccination campaigns. By 2022, growth slowed to between 270,265 and 288,197, possibly due to stabilized public interest and reduced pandemic urgency.

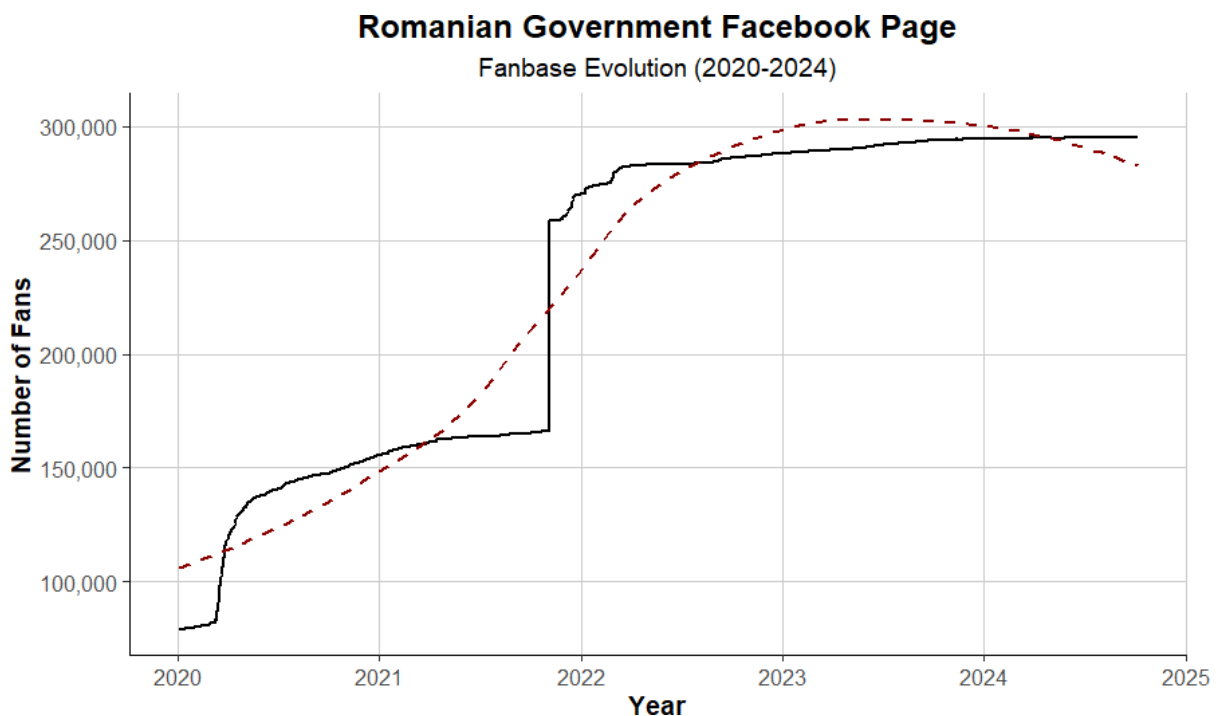


Figure 1. Fanbase Growth (2020–2024)
Source: Authors' elaboration using data from Fanpagekarma.com

In 2023, the follower count plateaued between 288,204 and 294,625, reflecting a matured page with fewer new subscribers. By 2024, it stabilized near 295,199, suggesting saturation. Since 2024 was an election year, interest remained steady, but the lack of substantial new followers indicated that most of the interested audience had already followed the page.

Finally, by 2024, the fan base stabilized around 295,199, suggesting the page had reached a level of saturation. The minimal increase between 2023 and 2024 reflects a consolidation of the audience, where most users who intended to follow the page had already done so. Given that 2024 was an election year, it is possible that interest remained steady in anticipation of political campaigns.

In summary, the analysis of fanbase fluctuations on the Romanian Government's Facebook page between 2020 and 2024 demonstrates that significant growth moments were closely tied to major crises, such as the COVID-19 pandemic and key political events. The rapid growth in 2020–2021 highlights the public's need for official information during times of uncertainty, while the subsequent stabilization indicates a consolidation of the government-citizen relationship through the Facebook platform.

4.2. Posting Trends

The analysis of monthly posting activity on the Romanian Government's Facebook page from 2020 to 2024 indicates a significant decline in publishing frequency, suggesting a general trend towards reduced posting over the long term (see **Figure 2**).

In 2020, the government was highly active, with a maximum of 193 posts in March, coinciding with the outbreak of the COVID-19 pandemic in Europe and Romania. The need for frequent communication with the public regarding protection measures, restrictions, and awareness campaigns led to this surge in activity. After the March peak, activity remained relatively high, with more than 100 posts per month for the rest of the year, fluctuating slightly between 96 and 185 posts.

In 2021, although the number of monthly posts remained high in the early months, peaking at 178 in May, the overall trend was one of decline. By the end of the year, posting frequency stabilized between 110 and 161 posts per month, reflecting a more balanced but consistent activity level. This could be attributed to the ongoing vaccination campaigns and the government's need to disseminate vital information, though not with the same intensity as in the first year of the pandemic.

In 2022, a marked decrease in posting activity was observed. The year began with 149–152 posts per month, but by August, this number had dropped to 76. In the final months of the year, the frequency remained low, fluctuating between 77 and 120 posts per month. This reduction likely reflects a shift towards a more stable management of the pandemic and a reduced need for intensive public communication. Additionally, it may indicate resource constraints or a recalibration of the government's communication strategies.

In 2023, the decline became more pronounced, with a minimum of 56 posts in April and a maximum of 98 in March. The consistent drop in posting frequency below 100 posts per month suggests a shift in the government's communication strategy, potentially due to a decrease in public interest or a change in the government's approach to social media.

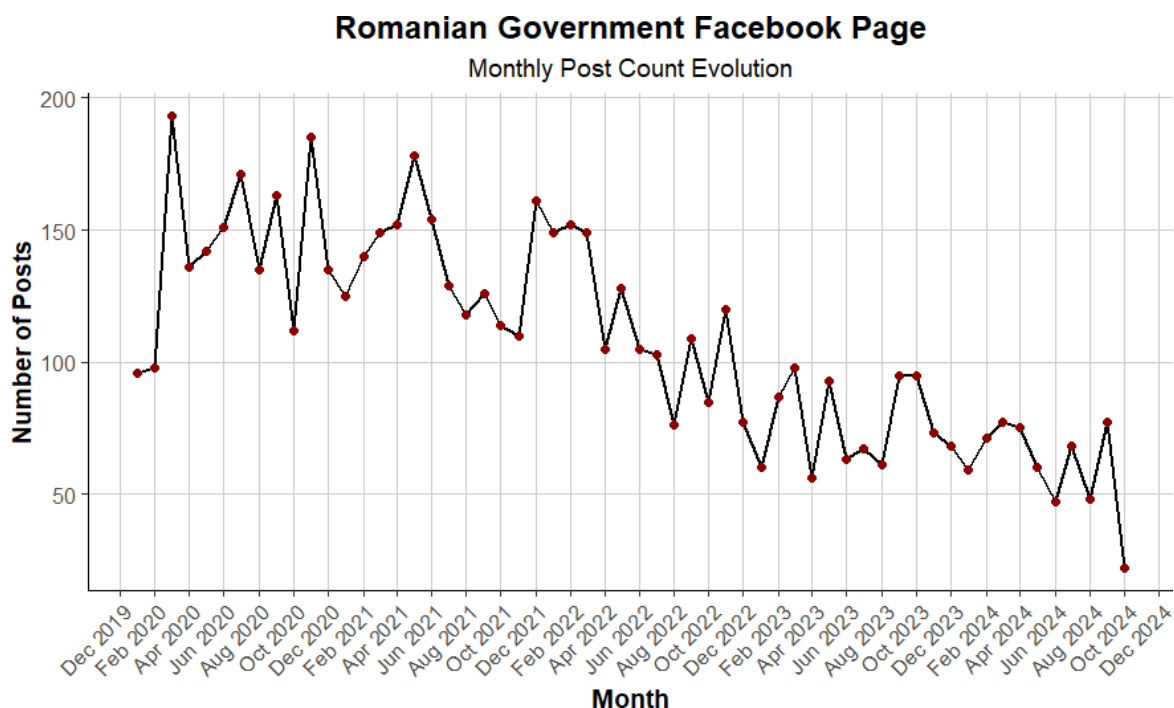


Figure 2. Monthly Posting Volume
Source: Authors' elaboration using data from Fanpagekarma.com.

By 2024, this downward trend continued, with monthly posts falling below 70, reaching a minimum of 22 in October. This drop may reflect a shift towards other forms of communication or a reduced emphasis on managing the government's online presence. The communication team may no longer consider the page a priority, resulting in a decreased posting frequency.

In conclusion, the analysis points to a clear trend of declining monthly post numbers, from high levels during the pandemic to much lower activity in 2024. This decrease likely reflects changing government communication priorities, adapting to public interest, or restructuring resources dedicated to managing the Facebook page.

4.3. Engagement Rate (ER)

Evaluating the Engagement Rate (ER) on the Romanian Government's Facebook page between 2020 and 2024 provides insight into how the audience interacted with content over different periods. ER, a key indicator of user involvement, is calculated based on interactions (likes, comments, shares) relative to the number of fans and posts. Analyzing ER fluctuations highlights the level of public interest and engagement in response to socio-political context and government communication strategy (see **Figure 3**).

In 2020, the average ER was the highest of the entire period analyzed, at 0.00554, with a maximum ER of 0.313. This reflects a period of intense public involvement, likely driven by the COVID-19 crisis, as citizens turned to government updates for critical information. The high interaction levels during this year indicate a strong emotional response to the public health crisis, with citizens actively seeking information and engaging with government content.

In 2021, the ER began to decline, with an annual average of 0.00230 and a maximum ER of 0.0618, considerably lower than the previous year. Despite the ongoing vaccination campaigns and pandemic management measures, public engagement diminished. This could be partially attributed to "pandemic fatigue," where audiences became less responsive to COVID-19-related content. The emotional intensity of the public's response to government posts had also decreased as people adjusted to the new normal.

By 2022, the average ER continued to decline, reaching 0.00106, with a maximum ER of just 0.0228. This sharp drop may reflect a transition in the government's communication strategy as they sought to reposition their messages in a post-pandemic context. Additionally, public interest may have shifted to other topics or platforms, further reducing Facebook interactions. The lower posting frequency and possibly less relevant content also contributed to the decrease in ER.

In 2023, the ER saw another drop, with an average of 0.000582 and a maximum of 0.00837. This significant decrease suggests minimal audience engagement with government content, indicating that posts were no longer resonating with public needs or interests.

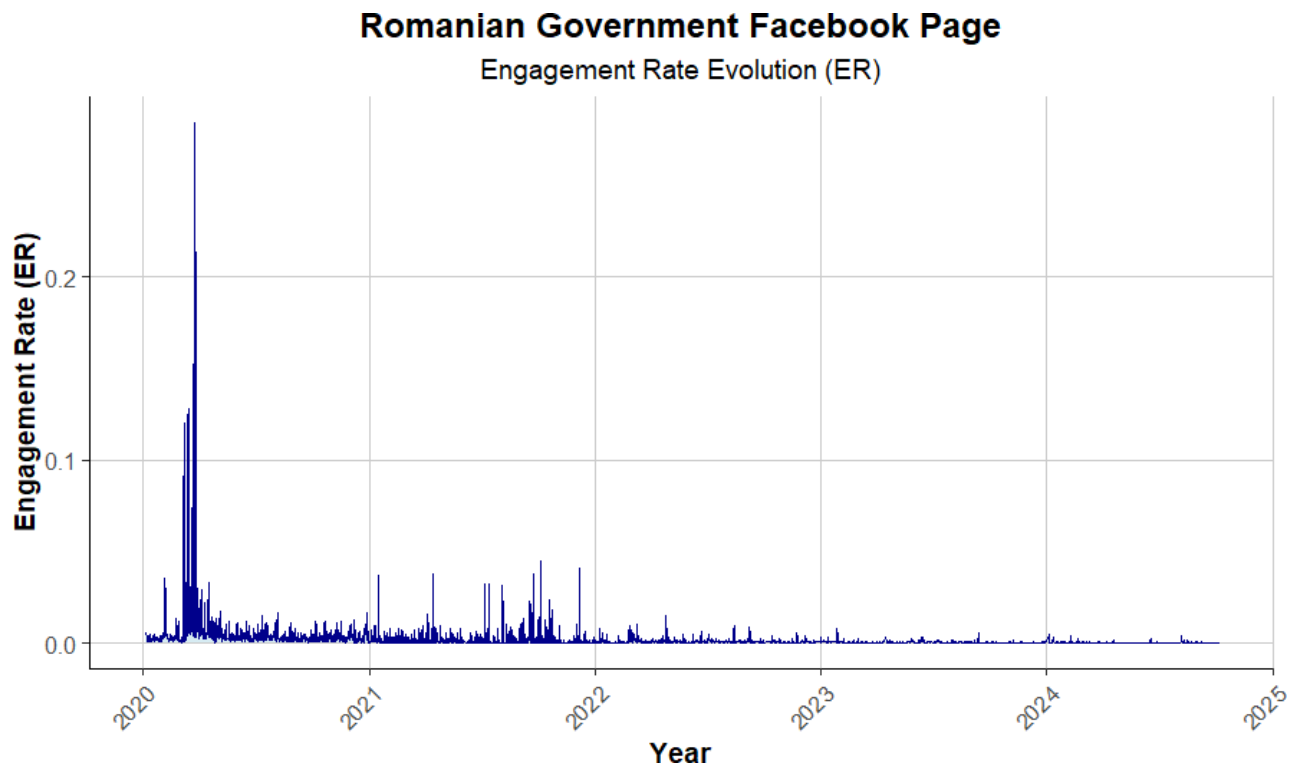


Figure 3. Engagement Rate over Time
Source: Authors' elaboration using data from Fanpagekarma.com.

4.4. Audience Reactions and Emotional Responses

The analysis of audience reactions on the Romanian Government’s Facebook page between 2020 and 2024 provides an understanding of the dominant emotions expressed by users. Reactions such as “Love,” “Wow,” “Sorry,” “Anger,” and “Care” offer a deeper insight into public sentiment toward government posts over this period (see **Figure 4**).

In 2020, the most dominant reaction was “Care,” accounting for 52.04% of all reactions (96,862 out of 186,114). This reflects a strong sense of empathy from the public, likely due to the ongoing COVID-19 pandemic, during which the government’s messages focused on protecting citizens’ health and safety. The public’s reaction indicates concern and care, highlighting the emotional toll of the pandemic. The “Wow” reaction was also prevalent, at 23.67%, suggesting surprise or awe at government measures and the unexpected nature of the unfolding crisis. “Love” represented 14.56%, indicating moderate approval of certain government actions, while “Anger” accounted for 7.33%, revealing some dissatisfaction. The “Sorry” reaction was the least common at 2.38%, likely reflecting sorrow or sympathy for the circumstances caused by the pandemic.

In 2021, the “Care” reaction grew even more dominant, rising to 61.13% of all reactions (103,962 out of 170,069), likely due to the ongoing vaccination campaigns and crisis management efforts. The increase in empathetic reactions signifies that the public remained highly engaged with health and safety topics. Meanwhile, “Wow” increased slightly to 25.27%, reflecting continued public interest in the government’s actions. However, “Love” decreased to 9.17%, possibly signaling a decline in overall appreciation. “Anger” and “Sorry” remained at low levels, with “Anger” at 2.94% and “Sorry” at 1.47%.

By 2022, the “Care” reaction decreased to 44.65%, and “Wow” rose significantly to 38.67%, indicating that the public was increasingly surprised by government decisions or external events. The decrease in “Care” reactions may reflect a stabilization in public attitudes toward government communications. “Love” remained relatively constant at 10.25%, while “Anger” and “Sorry” remained low, at 3.97% and 2.44%, respectively.

In 2023, “Wow” became the most frequent reaction, reaching 42.98% (15,073 out of 35,072), suggesting that public surprise at government actions grew. The “Care” reaction remained significant at 44.86%, though slightly lower than in previous years, while “Love” decreased further to 9.45%. “Anger” and “Sorry” were almost absent, at 1.30% and 1.41%, respectively, reflecting low levels of public dissatisfaction.

In 2024, “Wow” continued to dominate, reaching 57.85% (7,255 out of 12,540), indicating that public surprise or admiration for government decisions persisted, likely due to political shifts and election-related events. “Care” dropped to 28.72%, while “Love” increased slightly to 11.15%, and “Anger” and “Sorry” remained marginal.

In conclusion, the analysis of public reactions highlights a shift in sentiment over time. During the pandemic, “Care” and “Love” reactions predominated, reflecting empathy and approval. However, in subsequent years, “Wow” became the dominant reaction, signaling public surprise at government actions. “Anger” and “Sorry” reactions were consistently low throughout the period, indicating limited negative emotional responses from the public.

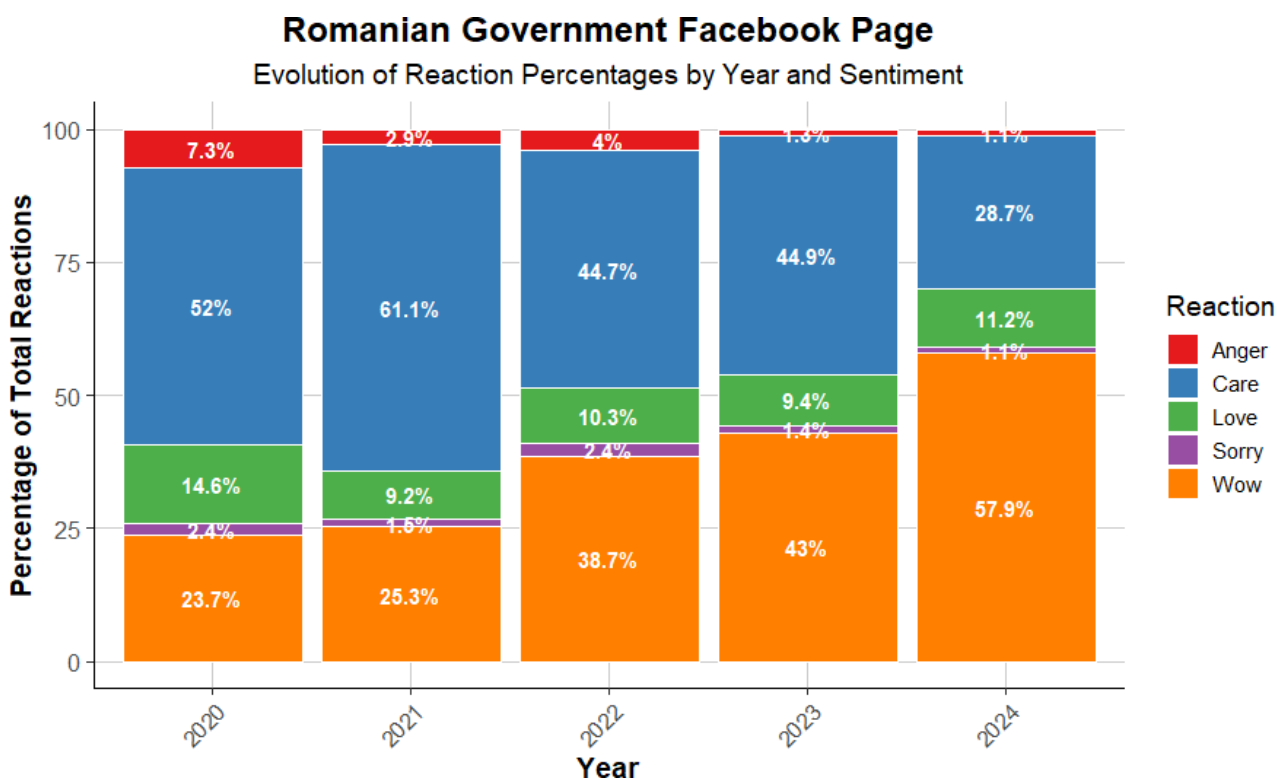


Figure 4. Distribution of Reactions
 Source: Authors’ elaboration using data from Fanpagekarma.com.

4.5. Monthly Evolution of Reactions

Examining the monthly evolution of reactions on the Romanian Government’s Facebook page reveals fluctuations in the intensity and nature of emotional responses to government posts (see **Figure 5**). This analysis captures the public’s changing emotional engagement with government communications across different periods.

In 2020, “Care” reactions peaked in April and November, with over 15,000 reactions during these months. This reflects the public’s heightened empathy and concern during key moments of the pandemic. “Wow” reactions also peaked in June and August, suggesting surprise at government measures or unexpected political events.

In 2021, “Care” reactions remained predominant but began to decline toward the end of the year, as the public became more accustomed to the ongoing health crisis and government actions. “Wow” continued to peak at various points, particularly in June, indicating ongoing public interest in government decisions.

By 2022, “Care” reactions had significantly decreased, while “Wow” reactions increased, reflecting a shift in public focus from health-related concerns to surprise at government decisions or events, such as economic recovery efforts or international crises.

In 2023 and 2024, “Wow” became the dominant reaction, highlighting the public’s surprise at government actions, while “Care” reactions declined. This suggests a distancing between the public and government measures, with less emotional engagement overall.

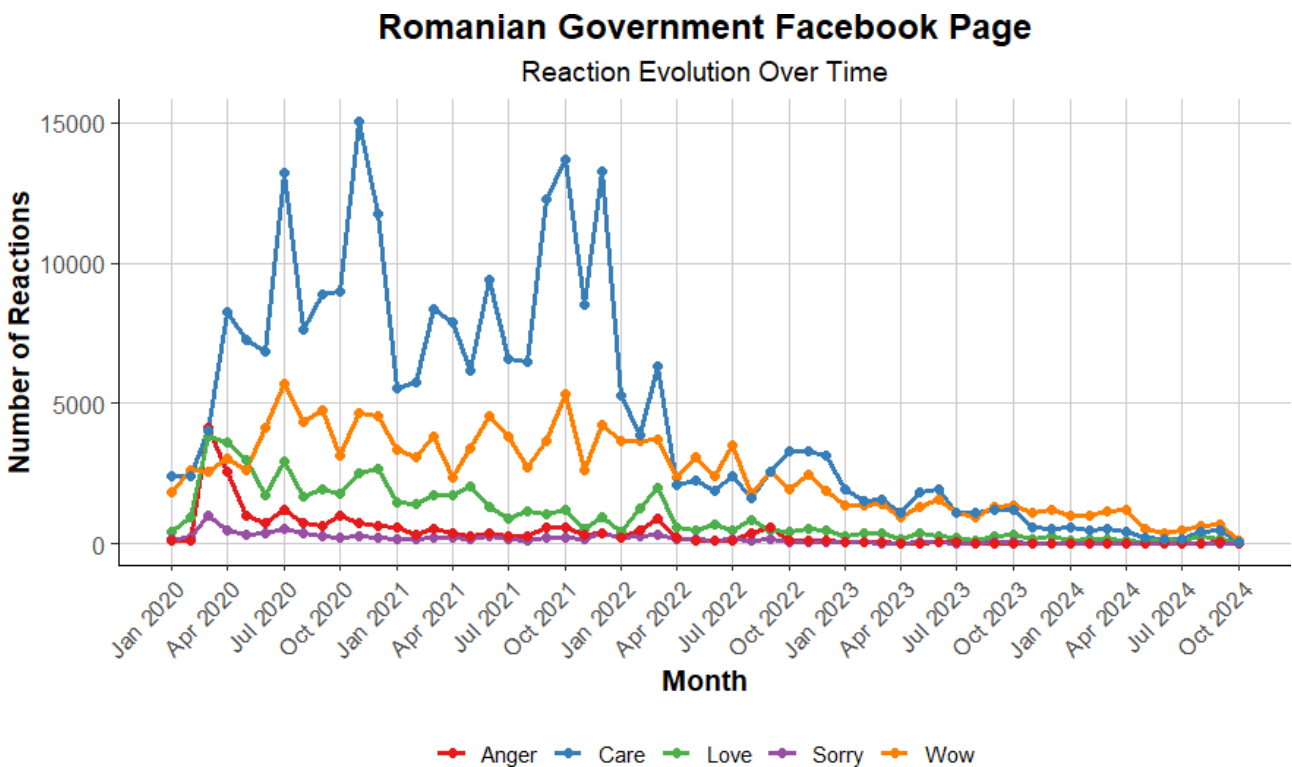


Figure 5. Monthly Reaction Trends
Source: Authors’ elaboration using data from Fanpagekarma.com.

4.6. Sentiment Analysis of Posts

Sentiment analysis based on the NRC Lexicon offers a comprehensive representation of the positive and negative sentiments expressed in the Romanian Government’s Facebook posts, as well as the distribution of key emotions such as anger, joy, and trust (see Figure 6).

The analysis demonstrates that the majority of the posts exhibited a positive sentiment, with 78.4% reflecting a favorable emotional tone. This high level of positivity indicates that the government’s communication was predominantly framed in an optimistic or constructive manner, particularly during periods of crisis management and policy announcements that offered clear solutions to societal challenges.

In contrast, 21.6% of the posts conveyed negative sentiments, which are likely associated with the government’s response to controversial political decisions or the handling of sensitive issues.

Among the emotions expressed, “trust” was the most prevalent, accounting for 36.18% of the government’s posts. This indicates that the government sought to cultivate reliability and confidence in its communications, particularly during pivotal periods such as the pandemic. The second most common emotion was “anticipation,” accounting for 18.83% of the posts, which reflects the government’s focus on future-oriented messaging and decisions. “Fear” (14.26%) was frequently associated with concerns pertaining to the pandemic, whereas “joy” (12.66%) manifested in positive proclamations and instances of accomplishment.

The occurrence of negative emotions, such as anger (4.93%) and disgust (2.41%), was less frequent, indicating that while some posts addressed challenging subjects, the overall tone remained measured. The emotion of sadness accounted for 5.69% of the posts, reflecting solemn moments or responses to national tragedies.

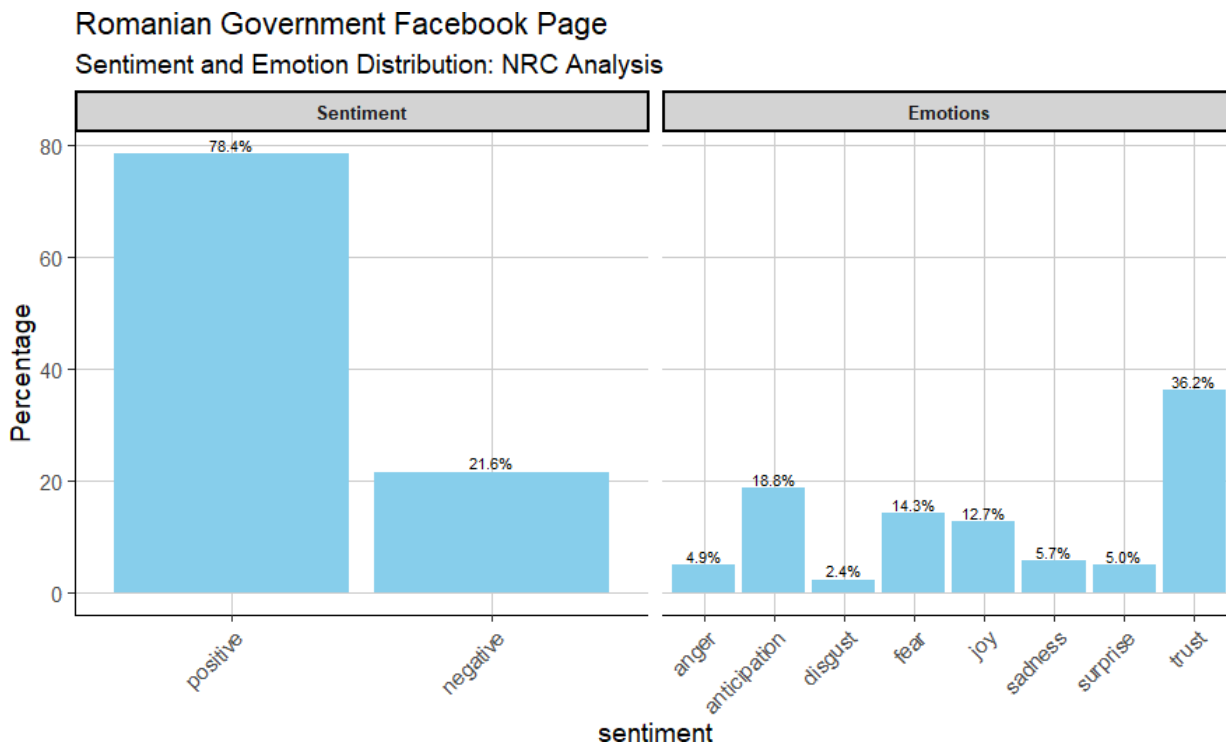


Figure 6. Overall Sentiment Distribution
 Source: Authors' elaboration using data from Fanpagekarma.com.

4.7. Monthly Sentiment Evolution

The monthly sentiment analysis reveals fluctuations in the tone of the Romanian Government's posts over time (see **Figure 7**).

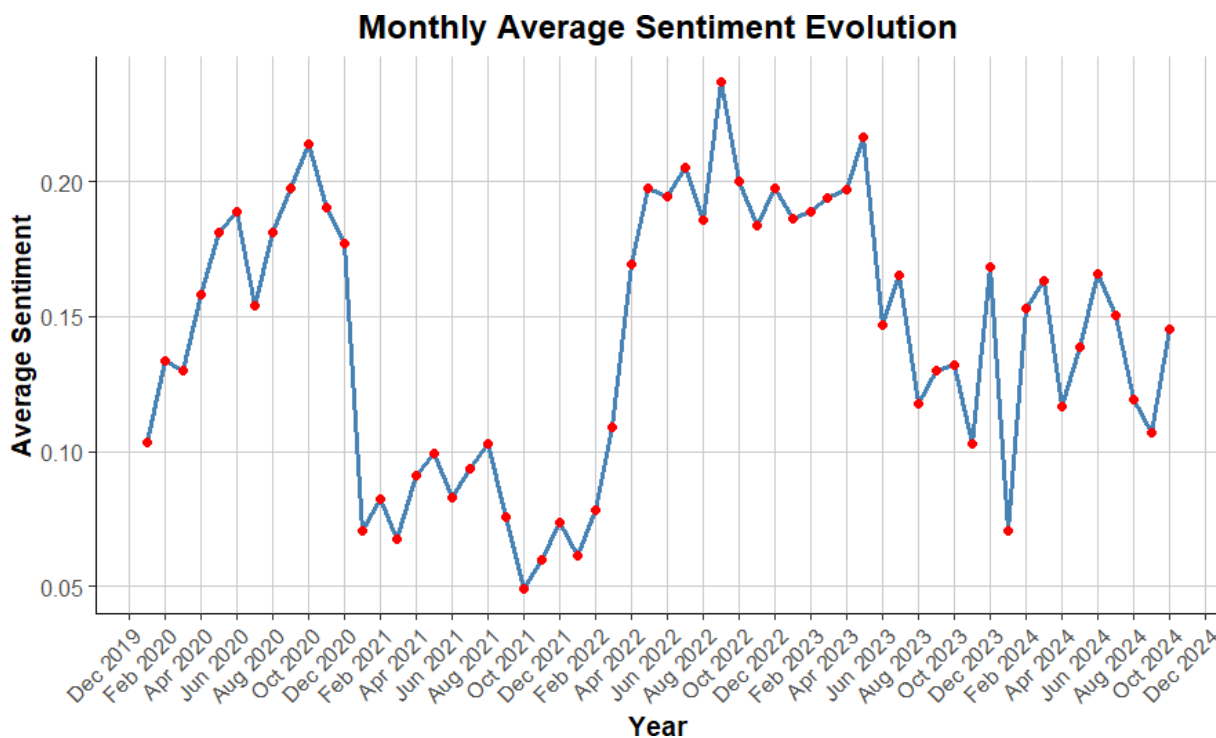


Figure 7. Monthly Sentiment Scores
 Source: Authors' elaboration using data from Fanpagekarma.com.

In 2020, the sentiment gradually increased from a relatively neutral tone in early months (0.103 in January) to a peak of 0.213 in October, as government communications became more optimistic in response to public health measures and economic support strategies.

In 2021, sentiment dropped sharply, reaching a low of 0.049 in October, reflecting the ongoing challenges of managing the pandemic and public frustrations with restrictions and vaccination efforts.

By 2022, sentiment began to recover, peaking at 0.236 in September, as the government shifted to a more optimistic tone, focusing on economic recovery and a return to normalcy.

In 2023 and 2024, sentiment fluctuated, with a minimum of 0.070 in January 2024, reflecting cautious tones in response to political events, but improving in later months as elections approached.

4.8. Engagement by Time of Day and Day of the Week

The analysis of average interactions by time of day and day of the week highlights optimal times for posting content based on audience engagement (see **Figure 8**).

The highest levels of interaction were observed on Sundays, particularly during the morning and afternoon hours, with a notable peak at midnight, when interactions averaged over 4,000. This trend suggests that weekends, particularly Sundays, are the most effective times for posting content, as the public is more likely to engage with government posts during their free time.

Weekdays, particularly Wednesday and Friday, saw lower levels of engagement during working hours. However, late-night posts, especially on Friday at 11 p.m., saw a sudden increase in interactions, indicating that evening posts during the workweek may also be effective.

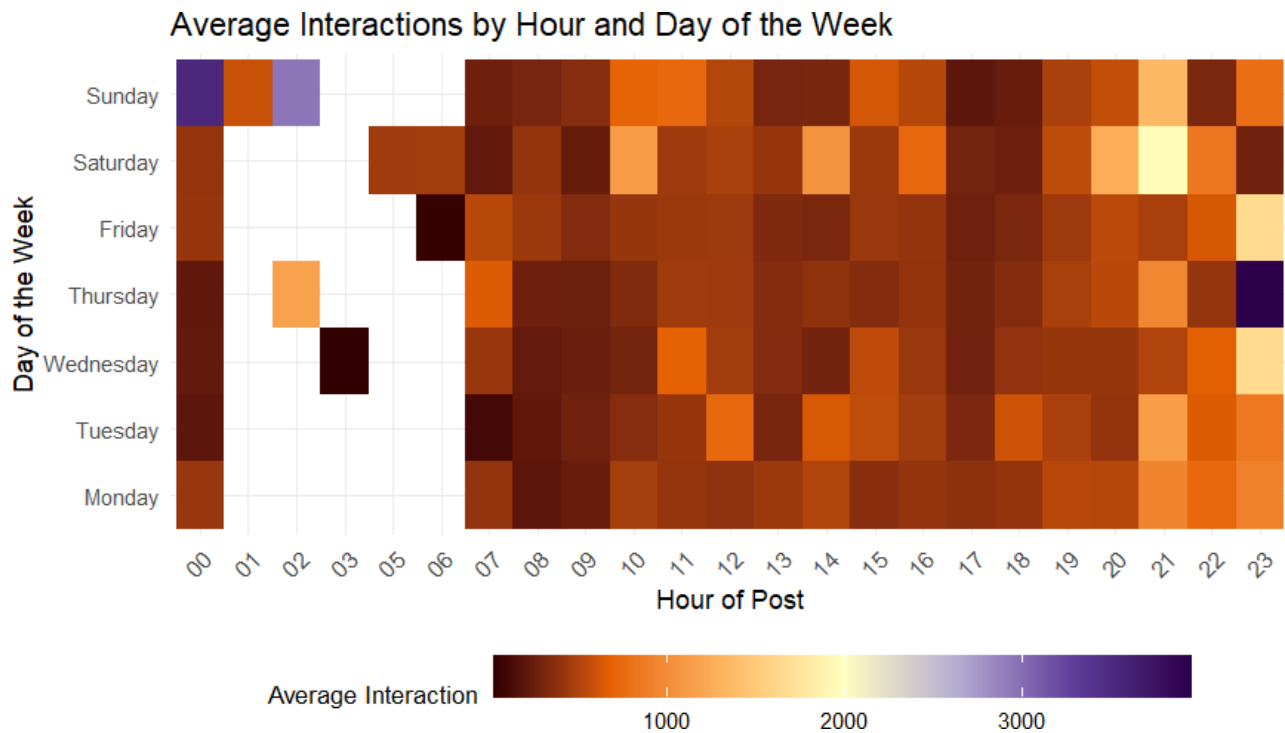


Figure 8. Engagement by Time and Day
Source: Authors' elaboration using data from Fanpagekarma.com.

4.9. Campaign Performance Evaluation

The performance of thematic campaigns, evaluated based on reactions, comments, and shares, shows clear differences in audience engagement (see **Figure 9**).

The most successful campaign was the COVID-19 campaign, generating a total of 362,584 reactions, 75,109 comments, and 45,601 shares. This reflects the high level of public interest and engagement with pandemic-related content. Other campaigns, such as Health and Education, also performed well, with 126,879 and 36,908 reactions, respectively.

However, campaigns like Energy and Justice saw relatively lower engagement, suggesting less public interest in these topics.

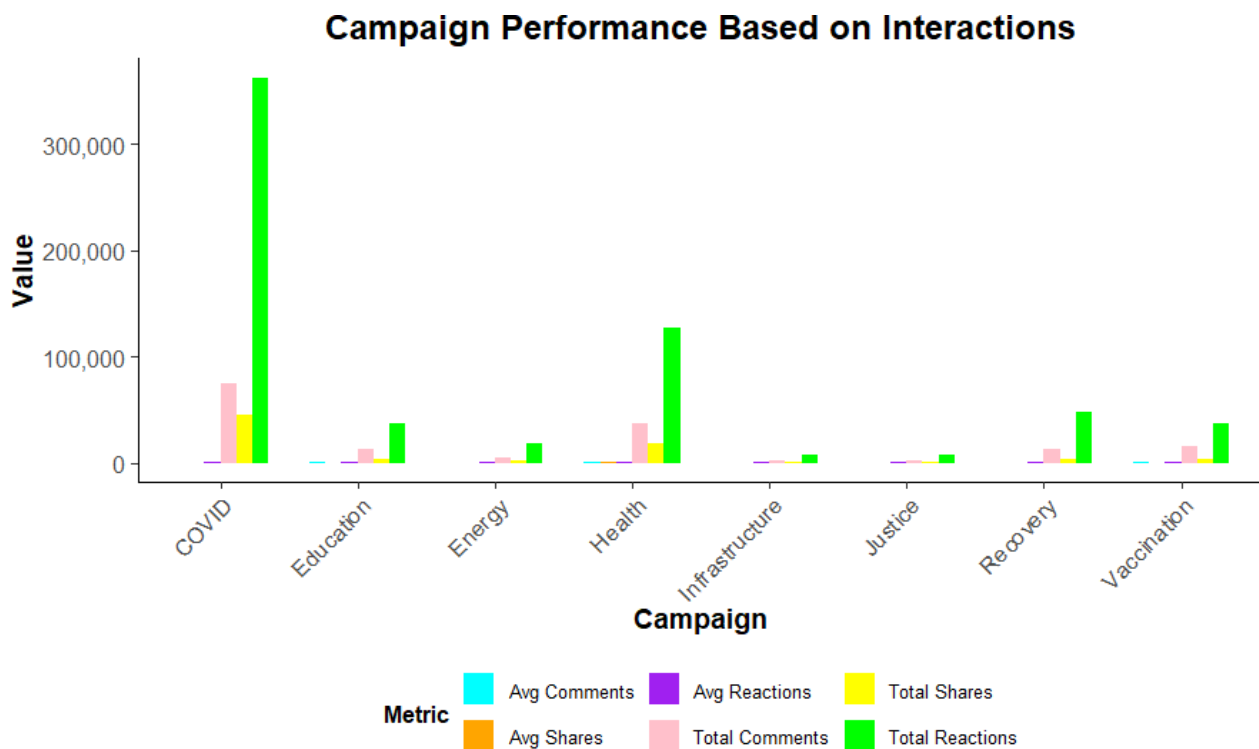


Figure 9. Engagement with Thematic Campaigns
Source: Authors' elaboration using data from Fanpagekarma.com.

5. Discussion and conclusion

These results align with broader findings on digital governance and public engagement, underscoring the increasing role of social media in government-citizen interactions (Bertot, Jaeger, & Hansen, 2012; Mergel, 2013). The Romanian Government's Facebook activity (2020–2024) highlights how social platforms serve as valuable channels for urgent information sharing, transparency, and trust-building –particularly during crises such as COVID-19.

Consistency with prior research emerges in the contextual nature of public engagement. Studies emphasize that flexibility in communication is crucial (Lovejoy & Saxton, 2012; Avery & Graham, 2013). Engagement spiked in the early pandemic stages due to the high demand for official updates, supporting Jiang et al. (2016), who note that empathetic, straightforward messaging can lower anxiety and maintain trust.

However, once the crisis stabilized, both posting frequency and engagement dropped. This reflects the cyclical nature of crisis communication, consistent with Mergel's (2013) observation that maintaining engagement beyond emergencies is challenging. As immediate crises subside, governments must refine strategies to remain relevant and emotionally resonant (Graham & Avery, 2013).

The study further reinforces the idea that emotional tone heavily influences engagement (Stieglitz & Dang-Xuan, 2013; Thelwall et al., 2010). Initially, empathy and care dominated posts, fostering solidarity and trust. Over time, public reactions shifted toward surprise or reduced emotional involvement, underscoring the need for continuous adaptation to audience sentiments.

Sentiment analysis revealed mostly positive posts, aligning with prior work suggesting that clear, consistent, and optimistic messaging can bolster public trust (Lovejoy & Saxton, 2012). Nonetheless, negative sentiment did surface on contentious issues, echoing Stieglitz and Dang-Xuan (2013), who link social media sentiment to wider public opinion. Transparency and responsiveness remain vital, especially during policy controversies.

Finally, post timing matters. High engagement during evenings and weekends echoes Jiang et al. (2016), emphasizing that user behavior patterns should guide strategic scheduling. In sum, the Romanian Government's Facebook strategy effectively addressed immediate crisis needs but struggled to sustain engagement afterward. Future efforts should balance timely updates with adaptive content that resonates emotionally, even outside of emergencies.

6. Recommendations

To further enhance the effectiveness of its social media communication, the Romanian Government should focus on maintaining consistent engagement with the public, even outside of crisis periods. This requires more than just regular updates; the government needs to diversify its content to reflect evolving public interests, using interactive formats and offering transparent dialogue on key issues.

Additionally, the timing of posts is critical. By aligning communication with periods of peak engagement –particularly weekends and evenings –the government can maximize the reach and impact of its messages. Finally, continued monitoring of audience sentiment and emotional responses will allow the government to adapt its messaging in real-time, ensuring it resonates with public concerns and maintains trust.

7. Study Limitations

This research focuses solely on Facebook, excluding platforms like Twitter or Instagram, which could yield further insights into the Romanian Government's overall digital strategy. Although the NRC Lexicon was valuable for sentiment analysis, it may not fully capture nuances of the Romanian language. Additionally, reliance on Fanpagekarma.com as a single data source restricts the scope for triangulation. Future studies should include multiple social media platforms and possibly incorporate qualitative analyses for richer insights.

8. References

- Avery, E. J., & Graham, M. W. (2013). Political Public Relations and the Promotion of Participatory, Transparent Government Through Social Media. *International Journal of Strategic Communication*, 7(4): 274–291, DOI: 10.1080/1553118X.2013.824885
- Bertot, J. C., Jaeger, P. T., & Hansen, D. (2012). The Impact of Policies on Government Social Media Usage: Issues, Challenges, and Recommendations. *Government Information Quarterly*, 29(1), 30–40. <https://doi.org/10.1016/j.giq.2011.04.004>
- Bright, J. (2018). Explaining the Emergence of Social Media Governance: A Network Perspective. *Journal of Public Administration Research and Theory*
- FanpageKarma. (2024). *Social media analytics & monitoring tool*. Retrieved February 22, 2025, from <https://www.fanpagekarma.com/>
- Graham, M. W., & Avery, E. J. (2013). Government Public Relations and Social Media: An Analysis of the Perceptions and Trends of Social Media Use at the Local Government Level. *Public Relations Journal*, 7(4): 1–21.
- Heeks, R., & Bailur, S. (2007). Analyzing E-government Research: Perspectives, Philosophies, Theories, Methods, and Practice. *Government Information Quarterly*, 24(2): 243–265, DOI: 10.1016/j.giq.2006.06.005
- Hvitfeldt, E., & Silge, J. (2024). *textdata: Download and Load Various Text Datasets (Version 0.4.5)* [Computer software]. <https://cran.r-project.org/web/packages/textdata/index.html>
- Jiang, H., Luo, Y., & Kulemeke, O. (2016). Leading in the Digital Age: A Study of How Social Media Are Transforming the Work of Communication Professionals. *Telematics and Informatics*, 33(2), 493–499. DOI: 10.1016/j.tele.2015.10.006
- Linders, D. (2012). From E-government to We-government: Defining a Typology for Citizen Co-production in the Age of Social Media. *Government Information Quarterly*, Volume 29, Issue 4, PP. 446–454, <https://doi.org/10.1016/j.giq.2012.06.003>
- Lovejoy, K., & Saxton, G. D. (2012). Information, Community, and Action: How Nonprofit Organizations Use Social Media. *Journal of Computer-Mediated Communication*, 17(3), 337–353. DOI: 10.1111/j.1083-6101.2012.01576.x
- Mergel, I. (2013). Social Media Adoption and Resulting Tactics in the U.S. Federal Government. *Government Information Quarterly*, 30(2), 123–130. <https://doi.org/10.1016/j.giq.2012.12.004>
- Queiroz, G. D., Fay, C., Hvitfeldt, E., Keyes, O., Misra, K., Mastny, T., Erickson, J., Robinson, D., Silge [aut, J., & cre. (2024). *tidytext: Text Mining using 'dplyr', 'ggplot2', and Other Tidy Tools (Version 0.4.2)* [Computer software]. <https://cran.r-project.org/web/packages/tidytext/index.html>
- Rinker, T. (2021). *sentimentr: Calculate Text Polarity Sentiment (Version 2.9.0)* [Computer software]. <https://cran.r-project.org/web/packages/sentimentr/index.html>
- Sanders, K., & Canel, M. J. (2013). Government Communication: Cases and Challenges. *Public Relations Review*, DOI:10.5040/9781472544629, Corpus ID: 153086570
- Seltzer, T., & Mitrook, M. A. (2007). The Dialogic Potential of Weblogs in Relationship Building. *Public Relations Review*, Volume 33, Issue, pp. 227–229, DOI: 10.1016/j.pubrev.2007.02.011
- Spinu, V., Grolemond, G., Wickham, H., Vaughan, D., Lyttle, I., Costigan, I., Law, J., Mitarotonda, D., Larmarange, J., Boiser, J., & Lee, C. H. (2023). *lubridate: Make Dealing with Dates a Little Easier (Version 1.9.3)* [Computer software]. <https://cran.r-project.org/web/packages/lubridate/index.html>
- Spinu, V., Grolemond, G., Wickham, H., Vaughan, D., Lyttle, I., Costigan, I., Law, J., Mitarotonda, D., Larmarange, J., Boiser, J., & Lee, C. H. (2023). *lubridate: Make Dealing with Dates a Little Easier (Version 1.9.3)* [Computer software]. <https://cran.r-project.org/web/packages/lubridate/index.html>
- Stieglitz, S., & Dang-Xuan, L. (2013). Social Media and Political Communication: A Social Media Analytics Framework. *Social Network Analysis and Mining*, 3(4), 1277–1291. DOI: 10.1007/s13278-012-0079-3
- Tasente, T., Butacu, M., & Rus, M. (2024). Strategic Sentiments: The European Commission's Social Media Response to the Russia-Ukraine Crisis. *Dixit*, 38, e3644–e3644. <https://doi.org/10.22235/d.v38.3644>
- Tasente, T., Butacu, M., & Rus, M. (2024). Strategic Sentiments: The European Commission's Social Media Response to the Russia-Ukraine Crisis. *Dixit*, 38, e3644–e3644. <https://doi.org/10.22235/d.v38.3644>
- Tasente, T., Rus, M., & Tanase, G. (2024). From Outbreak to Recovery: An Observational Analysis of the Romanian Government's Online Communication during and post-COVID-19. *Vivat Academia*, 1–21. <https://doi.org/10.15178/va.2024.157.e1513>
- Thelwall, M., Buckley, K., & Paltoglou, G. (2010). Sentiment in Twitter Events. *Journal of the American Society for Information Science and Technology*, 62(2), 406–418. <https://doi.org/10.1002/asi.21462>
- Zakiri, E. L. (2020). The Role of Communication in Effective Crisis Management: A Systematic Literature Review. *International Journal of Humanities and Social Science*, 10, 119–124. <https://doi.org/10.30845/ijhss.v10n6a14>