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Emotional Storytelling in Dating Apps' Social Media Campaigns across Instagram and TikTok

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Ethical considerations

All data analyzed in this study were collected exclusively from publicly available online sources. The dataset comprises posts from official university social media accounts with public profiles, whose primary purpose is institutional communication, dissemination of academic information, and promotion of their image, activities, and services. All analyzed accounts were openly accessible at the time of data collection, and no private or restricted information was accessed or stored. The dataset includes only textual content from posts and quantitative engagement metrics; no user identifiers, personal data, or private interactions from other users were collected or recorded.

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Abstract:

This study examines how dating app brands, Tinder, Bumble, Grindr, and Iris Dating, construct and communicate emotional narratives through social media content on Instagram and TikTok. Combining sentiment and emotion analysis with engagement metrics, it explores how affective tone, content type, and brand characteristics influence audience interaction. A total of 6,934 posts were collected via automated scraping and analyzed using AI-driven workflows to classify sentiment, emotion, and topics.Findings reveal that negative sentiment consistently generates higher engagement than neutral or positive content, confirming a negativity bias. On Instagram, sadness is most associated with higher engagement, while on TikTok differences are mainly observed at the sentiment level. Engagement peaks in 2020 on TikTok and in 2023 on Instagram, reflecting platform-specific trends. Cross-brand differences show that both large and localized accounts can achieve high engagement. Topic analysis indicates that Instagram users engage more with practical and influencer-based content, while TikTok favors culturally embedded and relationship-focused narratives. Overall, the results highlight platform-specific dynamics, the role of authenticity, and creator collaboration as key drivers of engagement in digital dating ecosystems.

Keywords: sentiment analysis, brand storytelling, Instagram, TikTok, dating apps, Tinder, Bumble, Gidr, iris dating, mobile dating

1.Introduction

In today's hyperconnected digital landscape, dating applications have transformed the way individuals initiate, manage, and experience romantic and social relationships. What began as a niche form of online interaction has evolved into a mainstream cultural phenomenon that blends technology, emotion, and identity. Apps such as Tinder, Bumble, Grindr, and Iris Dating exemplify this evolution, each offering distinct models of connection and community building. As prior research suggests, dating apps are not simply tools for meeting others, but mediating technologies that shape visibility, self-presentation, and social interaction in contemporary digital life (Wu & Trottier, 2022). Tinder alone has surpassed 400 million downloads and counts over 75 million active monthly users, while Bumble exceeds 100 million downloads globally (DatingZest, 2025; Zauderer, 2025). Grindr, a pioneer within the LGBTQ+ segment, reports around 15 million active users, fostering a sense of belonging among its digital communities (Grindr, 2026). Although smaller in scale, Iris Dating reflects the emergence of more niche and authenticity-driven approaches within the dating ecosystem, using artificial intelligence to learn individual preferences and recommend matches based on facial recognition and behavioral data, thereby positioning itself as a platform oriented toward more curated forms of online connection (IrisDating, 2025a)

Collectively, these platforms show how digital intimacy is increasingly shaped not only within apps themselves, but also across broader social media ecosystems, prompting brands to adapt their social media storytelling and emotional engagement strategies to connect with increasingly discerning audiences. Consequently, examining how dating apps communicate emotions and frame their narrativesthrough Instagram and TikTok is essential to understand how emotional storytelling adapts to different interaction logics and how each environment fosters distinct modes

of engagement and brand–user relationships. This cross-platform perspective is necessary because dating cultures and social media environments increasingly overlap, shaping how intimacy, identity, and visibility are negotiated online (Duguay et al., 2020).

However, while prior literature has examined dating apps as sociotechnical environments and has also explored emotional communication on social media, less attention has been paid to how dating-app brands themselves construct emotional storytelling across platforms and whether sentiments, emotions, topics, and formats are associated with higher engagement. This is the gap addressed by the present study. Research on platformed communication suggests that emotional tone can meaningfully influence user interaction, especially in highly visual and algorithmically driven environments such as TikTok (Cheng & Li, 2023), yet this insight has rarely been applied to the comparative analysis of dating-app brand communication across Instagram and TikTok.

The aim of this study is to analyze how dating app brands, such as Bumble, Tinder, Grindr and Iris dating, construct and communicate emotional narratives through their social media content on Instagram and TikTok. By examining the sentiments and emotions expressed in brand-generated posts and their relationship with engagement metrics, the research seeks to identify which emotional tones are most effective in generating audience interaction. Furthermore, the study aims to explore the temporal evolution of engagement patterns, compare performance across different social media platforms and profiles, and investigate the predominant topics reflected in brand-generated content.

RQ1. What is the relationship between the sentiment and emotions expressed in social media content and the level of engagement it generates across platforms?

RQ2. How do engagement patterns evolve over time in social media content?

RQ3. How do engagement levels differ across the all the profiles on both social media platforms?

RQ4. Which thematic topics published by brand-generated profiles achieve higher levels of engagement across social media platforms?

RQ5. How does engagement vary according to content format (image, video, carousel) and influencer size (macro, micro, nano) across Instagram and TikTok?

2.Literature Review

Over the past decade, dating applications have become a focal point of academic inquiry, revealing how digital technologies transform the ways individuals experience intimacy, identity, and connection in networked societies. Wu & Trottier, (2022) argue that rather than functioning simply as tools for meeting partners, dating apps operate as sociotechnical environments that mediate visibility, romantic interaction, and broader social norms. Existing research has shown that dating app use is influenced by psychological and technological factors such as sensation-seeking, smartphone use, trust, attitudes, and perceived norms (Chan, 2017). Other studies have emphasized how app interface's structure gender performance, inclusion, and self-expression, especially for women and LGBTQ+ users (Byron et al., 2021; MacLeod & McArthur, 2019). At the same time, dating apps may reproduce inequalities and stereotypes related to beauty, masculinity, and desirability (Carlson, 2020; Kluger et al., 2025).

This body of work is important, however, most of this literature focuses on user practices, motivations, or inequalities within the apps themselves, rather than on how dating-app brands communicate publicly.

A second relevant strand of research examines the growing convergence between dating apps and broader social media ecosystems has become central to understanding how intimacy, visibility, and identity are negotiated online. As users move fluidly across environments such as Tinder, Instagram, and TikTok, intimacy and visibility are increasingly negotiated across platforms rather than within a single app. Related work has shown that users may also transform experiences of harassment into forms of resistance and discursive activism (Shaw, 2016), while long-term exposure to dating platforms can intensify self-objectification and performative self-presentation across visual media (Freyth, 2022). More recently, Suenzo (2024). argues that users increasingly construct "scripted sexualities" across Instagram, Tinder, and Grindr, blending emotional storytelling with self-branding strategies in ways that blur the line between personal identity and platformed visibility.

These processes intersect with broader patterns of online harassment, which remain pervasive, affecting up to 88% of dating app users and disproportionately impacting women and LGBTQ+ communities (Gewirtz-Meydan et al., 2024).

This second strand of research and its cross-platform perspective is particularly useful for the present study because it shifts attention from dating apps as isolated platforms to dating cultures as cross-platform phenomena. In other words, intimacy is no longer produced only inside the app, but also across adjacent social media environments where users and brands circulate meanings about dating, relationships, identity, and belonging.

Expanding this perspective, TikTok has recently emerged as a central arena for digital intimacy and dating discourse, broadening the sociotechnical landscape traditionally dominated by apps such as Tinder and Bumble. (Anderson, 2020) identified TikTok as a "metamodern" platform characterized by its creative chaos and algorithmic unpredictability, which fosters both authenticity and performative self-expression. Building on this,(Mendelson & Smith, 2024) examined trends like *#DatingWrapped*, showing how users narrate romantic failures and lessons through humor, vulnerability, and audiovisual storytelling, transforming personal experiences into collective emotional narratives. Similarly, (Balcioglu & Cerasi, 2025) analyzed over 600 dating-related TikTok videos and 26,000 comments, through #TurkeyDating, revealing that dating discourse on TikTok is deeply embedded in cultural norms and emotional expression, with topics ranging from relationship advice and humor to gender expectations and influencer participation. Their findings suggest that TikTok blurs the boundaries between entertainment and intimacy, creating a hybrid communicative environment where emotional authenticity becomes both a social currency and a branding strategy. This platform-specific literature shows that TikTok is not simply another channel for distributing content, but a space where emotional discourse, humor, advice, identity performance, and visibility operate according to a distinctive platform logic. The same is true, in different ways, for Instagram, where aesthetic coherence, influencer authenticity, and visual curation shape audience response (Easwar et al., 2023; Femenia-Serra et al., 2022). Platform architecture plays a defining role: Instagram emphasizes aesthetic coherence and influencer authenticity, while TikTok prioritizes spontaneity, humor, and audiovisual expressiveness that can stimulate rapid user engagement (Easwar et al., 2023; Femenia-Serra et al., 2022). These differences suggest that emotional storytelling is likely to operate differently across platforms.

A final body of literature concerns emotional storytelling emerges as a defining strategy for digital engagement, allowing brands and creators alike to build trust, authenticity, and affective resonance through relatable narratives (Appel et al., 2020; Hudson et al., 2016). The emotional tone and narrative coherence of digital content strongly predict engagement, especially on visual platforms such as Instagram and TikTok, where creativity and affective appeal drive algorithmic visibility (Cheng & Li, 2023; Dessart et al., 2015). Prior research has demonstrated that emotional content plays a key role in virality, with high-arousal emotions, regardless of valence, being more likely to be shared (Berger & Milkman, 2012). Advances in computational methods, including

sentiment and emotion analysis, have shown that emotional valence and intensity are crucial predictors of user interaction: high-arousal and negative emotions such as anger or sadness tend to generate greater attention, a phenomenon known as the negativity bias, while positive emotions foster long-term loyalty when aligned with authenticity (Belal et al., 2023; Jun & Yi, 2020).

These insights are highly relevant for dating-app brands. Platforms such asTinder, Bumble, and Grindr operate as laboratories for studying intimacy and self-presentation, extending their brands through social media to promote inclusive and emotionally resonant narratives . Their communication strategies rely on affective marketing to shape perceptions of love, identity, and connection in contemporary digital culture (Sumter et al., 2017; Ward, 2017). What remains less explored, however, is how dating-app brands themselves use emotional storytelling across different social media platforms, and whether specific sentiments, emotions, topics, formats, and profile characteristics are associated with higher engagement. Although the literature explains dating apps as mediated spaces of intimacy and separately shows that emotional tone matters for engagement on visual platforms, these strands have rarely been brought together in a comparative analysis of brand-generated content across Instagram and TikTok.

3.Data & Methodology

This study focuses on four dating-app brands — Tinder, Bumble, Grindr, and Iris Dating — selected to capture variation in platform identity, target audience, and brand positioning within the contemporary dating-app market.

3.1 Case selection

Although all dating applications operate within the same technological and social framework, each platform fosters distinct forms of interaction and emotional connection, as summarized in Table 1. Tinder, launched in 2012, popularized the swipe right / left mechanic, an intuitive gesture that allows users to accept or reject potential matches, and remains the dominant space for fast, appearance-based encounters, characterized by immediacy and high volume (Gózalez Tomadin, 2024). Bumble, founded in 2014 by Whitney Wolfe Herd, who had previously worked at Tinder as co-founder and Vice President of Marketing, introduced a gender-conscious model in which women initiate conversations in heterosexual matches, promoting female empowerment and safety as core values (BumbleInc, 2025). Grindr, launched earlier in 2009, pioneered geolocation-based dating for gay, bisexual, and queer men, facilitating both sexual exploration and a sense of community belonging within LGBTQ+ digital spaces (Maroño Porto, 2024). In contrast, Iris Dating, created in 2020, represents a new “slow dating” paradigm, using artificial intelligence and facial recognition to identify compatibility and promote more authentic and intentional connections (IrisDating, 2025b). Together, these sample platforms show how technological design, and social norms converge to produce differentiated ecosystems of intimacy, identity, and interaction in the digital dating landscape.

Platform	Year	Main Focus	Target Audience	Core Dynamic	Perception
Tinder	2012	Volume, speed, physical attraction	General	Symmetrical match (swipe right/left)	Casual and visually driven
Bumble	2014	Female empowerment, safety	General audience with female focus	Only women can initiate conversations	Egalitarian and modern
Grindr	2009	Geolocation, LGBTQ+ community	Gay and queer men	Proximity-based interaction	Community-oriented and sexual

Platform	Year	Main Focus	Target Audience	Core Dynamic	Perception
Iris Dating	2020	Artificial intelligence and authenticity	Users seeking genuine relationships	Facial recognition and compatibility matching	"Slow dating" and introspective

Table 1: Profile of the four dating-app brands included in the study

3.2. **Data collection and final sample**

The dataset was collected through automated web scraping using the Apify platform, which enables access to structured social media data through specialized APIs (*Apify*, 2026). Specifically, the Instagram Scraper and TikTok Profile Scraper actors were employed to extract posts from the official profiles of major dating applications, including Bumble, Tinder, Grindr, and Iris Dating. For each brand, both global and Spanish national accounts were identified to compare communication strategies and engagement levels across different markets. In some cases, the scraping process could not retrieve data because the tool reported that the account was restricted, as occurred with Bumble Global, Iris Dating, and Tinder Spain on Instagram.

The extraction process gathered both content and engagement metrics (number of likes, comments, saves, shares and views), as well as the number of followers, publication dates, and textual content of each post. In the case of Instagram, the initial dataset consisted of 4,131 posts. However, posts with a value of –1 likes were removed, as this code indicates that the platform hides the number of users who liked the post. To avoid potential bias in the analysis, these posts were excluded, resulting in a final dataset of 3,558 Instagram posts and 3,376 TikTok posts, for a total corpus of 6,934 posts analyzed. Table 2 summarizes the total number of posts obtained from each profile on Instagram and TikTok. At no point were usernames or user IDs stored.

Instagram	N. posts	Engagement	*TikTok*	N. posts	Engagement
Bumble Spain	15	85.54	No account	No account	
Bumble World	Restricted profile	-	Bumble World	1198	3.92
Grindr World	2435	0.38	Grindr World	541	6.28
Iris Dating	Restricted profile	-	Iris Dating	241	4.08
Tinder World	1108	0.53	Tinder World	1127	4.04
Tinder Spain	Restricted profile	-	Tinder Spain	269	1.76
	3558			3376	

Table 2: Sample of each profile and engagement in each social media

An automated sentiment and emotion analysis for text was performed using a workflow built on the low-code platform n8n (*n8n*, 2026), which is presented in figure 1. This setup connected Excel data with AI agents specific with sentiment and emotions classification, aligning with the concept of Agentic Process Automation (APA), which combines robotic and cognitive tasks to improve analytical efficiency (Kitsantas et al., 2024; Tuyishime et al., 2024).

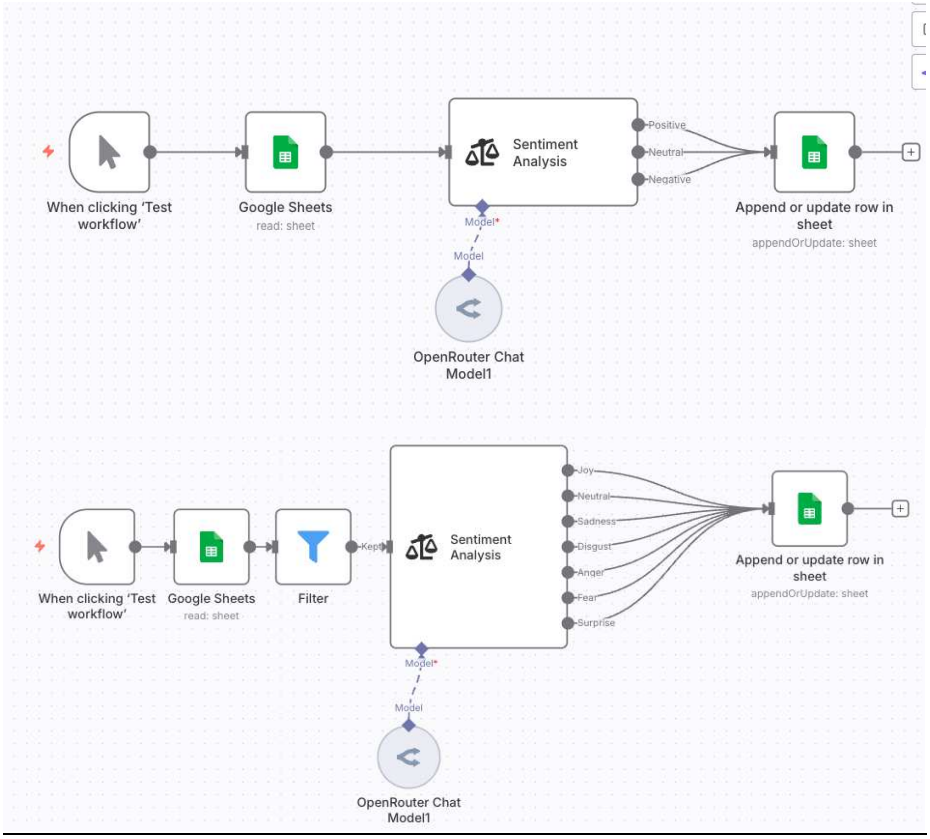

Figure 1: AI-assisted workflow for sentiment and emotion classification of social media posts

Figure 2 presents an automated workflow designed to classify social media posts or reviews into specific thematic categories using artificial intelligence (AI) and a direct connection to Google Sheets. The process begins with data extraction from Google Sheets, followed by a loop that iteratively analyzes each text entry. Through a logical filter, the texts are sent to an OpenAI Chat Model, which applies a predefined classification prompt. This prompt—shown in Figure 3—assigns each text to one of the six thematic categories identified in (Balcioglu & Cerasi, 2025): Online dating experiences and stories (e.g., first date, love journey, heartbreak, success story), Dating advice and tips (e.g., relationship tips, red flags, compatibility, profile optimization), Relationship dynamics and communication (e.g., trust, honesty, emotional intelligence, conflict resolution), Cultural impact on dating (e.g., gender roles, tradition, modern dating, family influence), Humor and entertainment in dating (e.g., memes, funny stories, dating fails, parodies), and Influencer experiences and collaborations (e.g., influencer stories, brand partnerships, public relationships, celebrity dating).

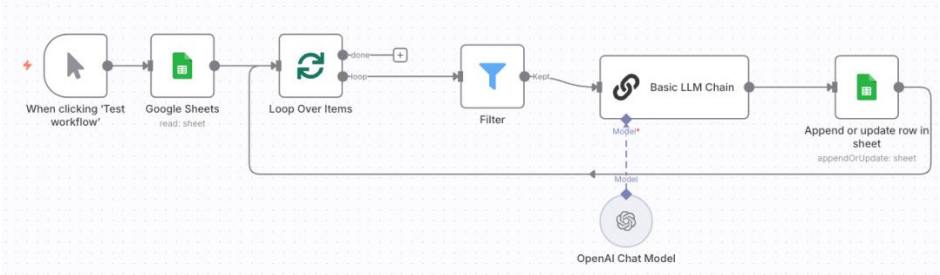

Figure 2: Automated topic workflow for review data processing with AI

Each topic is associated with a set of keywords that guide the automatic classification, following the methodology described by the authors, who applied topic modeling to TikTok content related

to dating in Turkey. Finally, the workflow records the categorized results back into the Google Sheet, allowing continuous and systematized data updates. This design combines the efficiency of automation with the semantic accuracy of AI-driven analysis, facilitating the replicability of studies on emotional communication and digital storytelling.

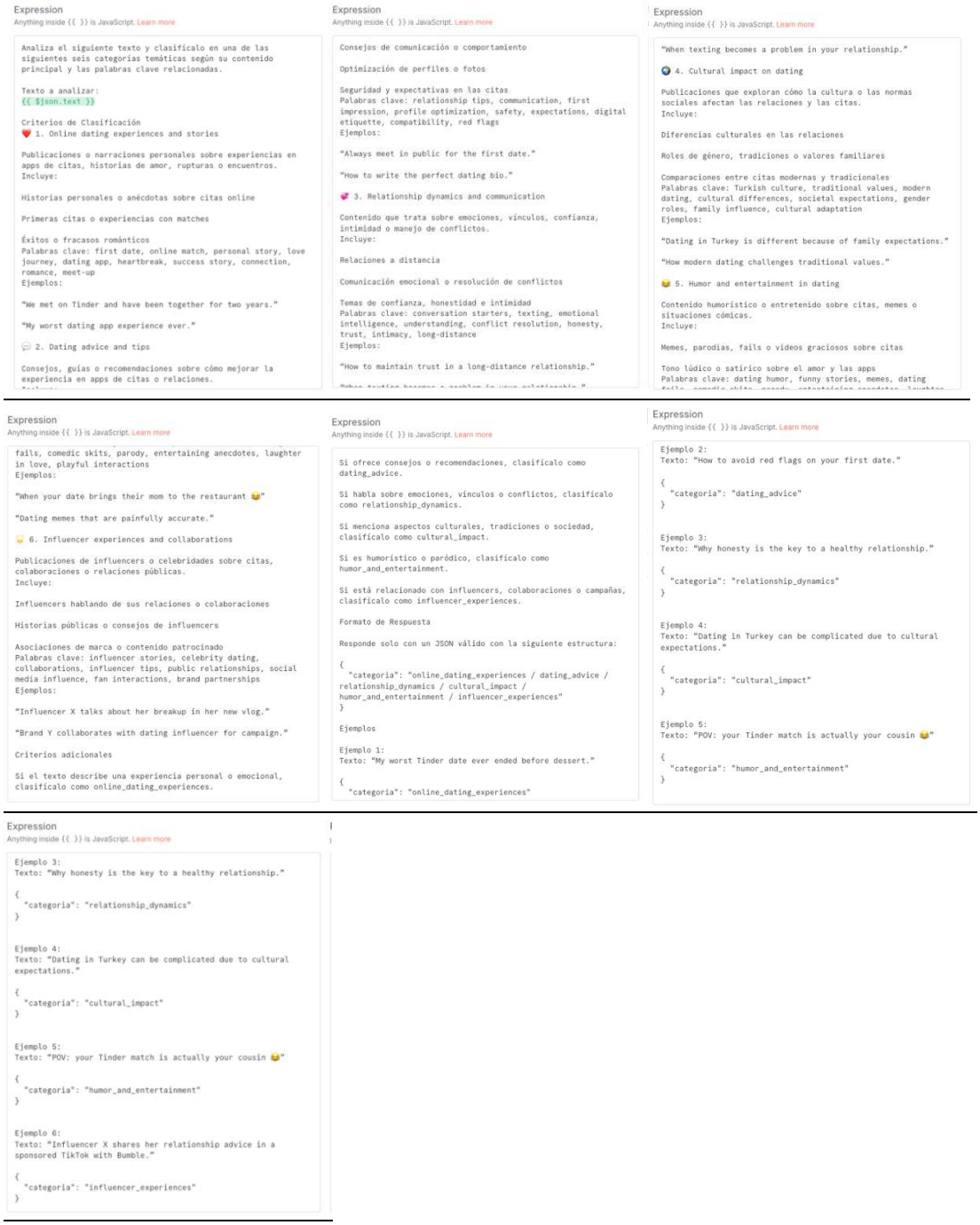

Figure 3: Prompt used to Automated topic workflow for review data processing with AI

Finally, the statistical analyses were conducted using an analysis of variance (ANOVA) to test the significance of the independent variables, considering engagement as the dependent variable in each case. For data visualization, bubble charts were created using the online platform Flourish, allowing for an interactive and comparative representation.

4.Results

The posts that achieved the highest engagement on Instagram and TikTok were the result of collaborations between dating app brands and influencers with large audiences, highlighting the growing relevance of co-branding strategies and creator partnerships in improves brand visibility. On Instagram, the most engaging post addressed the topic of *"red flags"* in romantic relationships, using humor and concise textual storytelling to generate identification and conversation among followers. In contrast, on TikTok, the top-performing video featured an influencer reporting from a *Pride* event, combining movement, emotion, and authenticity to capture viewers' attention. These examples demonstrate that content appealing to social relevance, emotional connection, and personal expression tends to outperform corporate posts, emphasizing the effectiveness of human-centered and value-driven narratives in digital engagement.



https://www.instagram.com/p/CvabBF0qLOC/
https://www.tiktok.com/@grindr/video/7514841116211121454

Figure 4: The posts with the highest engagement on Instagram and TikTok

	Instagram			TikTok		
Sentiments	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
negative	187	3,81	45,65	304	4,72	3,73
neutral	773	0,54	1,93	1198	4,26	3,9
positive	2598	0,81	10,41	1874	4,03	3,68
Emotions	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
anger	84	0,49	0,54	128	4,41	2,95
disgust	34	0,41	0,4	43	5,42	4,17
fear	14	0,59	0,89	32	4,56	3,33
joy	2598	0,81	10,41	1874	4,03	3,68
neutral	749	0,53	1,95	1160	4,26	3,91
sadness	55	11,81	84,16	101	4,88	4,47
surprise	24	0,65	0,72	38	4,32	3,8
Year	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
2013	142	0,02	0,02			
2014	172	0,08	0,05			
2015	289	0,09	0,03			
2016	422	0,1	0,12			
2017	403	0,22	0,35			
2018	430	0,43	0,34			
2019	301	1,16	1,25			
2020	412	0,65	0,6	269	7,17	3,27
2021	265	0,65	0,81	573	5,14	2,78

2022	219	0,73	0,79	751	5,38	4,16
2023	232	6,62	53,12	774	3,4	3,84
2024	151	1,74	8,51	595	2,21	2,55
2025	120	1,03	2,86	414	2,99	3,52
Type	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
Image	1851	0,38	0,7			
Sidecar	646	0,75	0,85			
Video	1061	1,93	25,15			
Influencer	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
Macro-influencer	3543	0,48	1,21	2866	4,41	3,9
Micro-influencer	15	102,64	191,29	269	1,76	1,58
Nano-influencer				241	4,08	2,88
Topic	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
Cultural Impact	158	0,41	0,5	35	4,08	3,91
Dating Advice	139	6,02	53,58	497	3,72	3,09
Humor and Entretaiment	942	0,59	0,99	1084	4,35	3,84
Influencer Experiences	1907	0,77	11,9	1149	4,45	4,1
Online Dating	371	0,76	2,66	515	3,59	3,31
Relationships Dynamics	41	0,49	0,61	96	4,43	3,8
Brand	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
Bumble Global				1198	3,92	3
Grindr Global	2435	0,45	0,72	541	6,28	5,68
Iris Dating				241	4,08	2,88
Tinder Global	1108	0,54	1,88	1127	4,04	3,4
Tinder Spain				269	1,76	1,58
Bumble Spain	15	102,64	191,29			
Total	**3558**	**0,91**	**13,76**	**3376**	**4,18**	**3,77**

Table 3: Descriptive Statistics of Engagement Across Content

The descriptive results reveal clear differences in how users engage with dating app content across Instagram and TikTok, shown in table 3. Overall engagement levels were substantially higher on TikTok (M = 4.18, SD = 3.77) compared to Instagram (M = 0.91, SD = 13.76), underscoring the platform's stronger emphasis on short-form, audiovisual interaction. Across both networks, posts with negative sentiment consistently achieved the highest engagement, Instagram (M = 3.81) and TikTok (M = 4.72), reinforcing the well-documented role of negativity bias in stimulating user reactions.

Emotion-based patterns follow a similar trend: expressions of sadness, disgust, and fear prompted greater interaction than joy or neutrality. Temporal dynamics also diverged across platforms. On Instagram, engagement rose gradually and peaked in 2023 (M = 6.62), while on TikTok the maximum occurred earlier, in 2020 (M = 7.17), coinciding with the surge in digital activity during the pandemic.

Content format played a key role as well. On Instagram, video posts generated considerably more engagement (M = 1.93) than images or sidecar posts, confirming a shift toward dynamic storytelling, as TikTok does. Differences by influencer size were platform-dependent: TikTok showed stronger engagement for macro and nano accounts (M = 4.41 and M = 4.08, respectively), whereas on Instagram the micro account Bumble Spain displayed exceptionally high engagement (M = 102.64), likely due to specific viral posts.

Topic-level trends reveal that advisory and influencer-driven content performed best on Instagram, while culturally oriented and influencer-centered narratives dominated engagement on TikTok.

RQ1. What is the relationship between the sentiment and emotions expressed in social media content and the level of engagement it generates across platforms?

		Instagram			TikTok		
Sentiment (i)	**Sentiment (j)**	**Mean (i-j)**	**Std.Error**	**Sign.**	**Mean (i-j)**	**Std.Error**	**Sign.**
negative	neutral	3,27	1,12		0,47	0,24	
	positive	3	1,04		0,69	0,23	**
neutral	negative	-3,27	1,12		-0,47	0,24	
	positive	-0,27	0,56		0,22	0,14	
positive	negative	-3	1,04		-0,69	0,23	**
	neutral	0,27	0,56		-0,22	0,14	
Emotion (i)	**Emotion (j)**	**Mean (i-j)**	**Std.Error**	**Sign.**	**Mean (i-j)**	**Std.Error**	**Sign.**
anger	disgust	0,07	2,79		-1,01	0,66	
	fear	-0,1	3,96		-0,16	0,74	
	joy	-0,32	1,52		0,37	0,34	
	neutral	-0,05	1,58		0,15	0,35	
	sadness	-11,33	2,38		-0,47	0,5	
	surprise	-0,17	3,17		0,09	0,7	
disgust	anger	-0,07	2,79		1,01	0,66	
	fear	-0,18	4,35		0,85	0,88	
	joy	-0,4	2,37		1,38	0,58	
	neutral	-0,12	2,4		1,16	0,59	
	sadness	-11,4	2,99		0,54	0,69	
	surprise	-0,24	3,65		1,1	0,84	
fear	anger	0,1	3,96		0,16	0,74	
	disgust	0,18	4,35		-0,85	0,88	
	joy	-0,22	3,67		0,53	0,67	
	neutral	0,06	3,7		0,31	0,68	
	sadness	-11,22	4,1		-0,32	0,76	
	surprise	-0,06	4,61		0,24	0,9	
joy	anger	0,32	1,52		-0,37	0,34	
	disgust	0,4	2,37		-1,38	0,58	
	fear	0,22	3,67		-0,53	0,67	
	neutral	0,27	0,57		-0,22	0,14	
	sadness	-11	1,87		-0,85	0,38	
	surprise	0,16	2,81		-0,29	0,62	
neutral	anger	0,05	1,58		-0,15	0,35	
	disgust	0,12	2,4		-1,16	0,59	
	fear	-0,06	3,7		-0,31	0,68	
	joy	-0,27	0,57		0,22	0,14	
	sadness	-11,28	1,91		-0,63	0,39	
	surprise	-0,12	2,84		-0,07	0,62	
sadness	anger	11,33	2,38		0,47	0,5	
	disgust	11,4	2,99		-0,54	0,69	
	fear	11,22	4,1		0,32	0,76	
	joy	11	1,87		0,85	0,38	
	neutral	11,28	1,91		0,63	0,39	
	surprise	11,16	3,35		0,56	0,72	
surprise	anger	0,17	3,17		-0,09	0,7	
	disgust	0,24	3,65		-1,1	0,84	
	fear	0,06	4,61		-0,24	0,9	
	joy	-0,16	2,81		0,29	0,62	
	neutral	0,12	2,84		0,07	0,62	
	sadness	-11,16	3,35		-0,56	0,72	

* sig: <0.001; ** sig: <0.05

Table 4: Games–Howell Post-Hoc Comparisons of Engagement by sentiment and emotion

To have a deeper analysis on sentiment and emotion, the post-hoc analysis was conducted using the Games–Howell test, after Levene's test confirmed violations of homogeneity of variances in all comparisons ($p < 0.05$). The results reveal distinct patterns in how engagement varies across sentiment and emotion categories on Instagram and TikTok, shown in table 4. For sentiment, Instagram shows noticeable mean differences across categories, with negative content generating higher engagement than both neutral and positive tones; however, these differences are not statistically significant. On TikTok, differences are smaller overall, although negative posts significantly outperform positive ones. On Instagram, negative posts show higher engagement compared to neutral and positive tones (Mean diff. = 3.27 and 3.00), but without statistical significance. On TikTok, differences are more limited, although negative posts significantly outperform positive ones (Mean diff. = 0.69, $p < 0.05$).

Regarding emotions, Instagram displays a consistent and pronounced pattern: sadness yields significantly higher engagement than all other emotional categories, with very large mean differences (e.g., sadness vs. anger = 11.33; sadness vs. joy = 11.00). This confirms the strong influence of high-arousal negative emotions on user reaction. By contrast, on TikTok, not pairwise comparison among emotions reaches statistical significance, although mean differences suggest that disgust, sadness, and relationship-related emotions tend to produce slightly higher engagement than neutral or positive expressions.

Taken together, these results indicate that emotional differentiation is much more accentuated on Instagram, where sadness overwhelmingly dominates, whereas TikTok shows a more homogeneous pattern across emotions, with only sentiment-level distinctions reaching significance. The use of the Games–Howell test ensures robust interpretation despite unequal variances and sample sizes across categories.

RQ2. How do engagement patterns evolve over time in social media content?

		Instagram			TikTok		
Year (i)	Year (j)	Mean (i-j)	Std.Error	Sign.	Mean (i-j)	Std.Error	Sign.
2013	2014	-0,06	1,55	*			
	2015	-0,07	1,4	*			
	2016	-0,07	1,33	*			
	2017	-0,2	1,34	*			
	2018	-0,41	1,33	*			
	2019	-1,14	1,39	*			
	2020	-0,63	1,33	*			
	2021	-0,63	1,42	*			
	2022	-0,71	1,48	*			
	2023	-6,59	1,46				
	2024	-1,72	1,6				
	2025	-1,01	1,7	**			
2014	2013	0,06	1,55	*			
	2015	-0,01	1,32				
	2016	-0,02	1,24				
	2017	-0,14	1,25	*			
	2018	-0,35	1,24	*			
	2019	-1,08	1,31	*			

	2020	-0,57	1,24	*
	2021	-0,57	1,34	*
	2022	-0,66	1,4	*
	2023	-6,54	1,38	
	2024	-1,67	1,53	
	2025	-0,96	1,63	**
2015	2013	0,07	1,4	*
	2014	0,01	1,32	
	2016	-0,01	1,05	
	2017	-0,13	1,06	*
	2018	-0,34	1,04	*
	2019	-1,07	1,13	*
	2020	-0,56	1,05	*
	2021	-0,56	1,16	*
	2022	-0,64	1,23	*
	2023	-6,53	1,21	
	2024	-1,65	1,37	
	2025	-0,94	1,49	**
2016	2013	0,07	1,33	*
	2014	0,02	1,24	
	2015	0,01	1,05	
	2017	-0,12	0,95	*
	2018	-0,33	0,94	*
	2019	-1,06	1,03	*
	2020	-0,56	0,95	*
	2021	-0,55	1,07	*
	2022	-0,64	1,14	*
	2023	-6,52	1,12	
	2024	-1,65	1,3	
	2025	-0,94	1,42	**
2017	2013	0,2	1,34	*
	2014	0,14	1,25	*
	2015	0,13	1,06	*
	2016	0,12	0,95	*
	2018	-0,21	0,95	*
	2019	-0,94	1,04	*
	2020	-0,43	0,96	*
	2021	-0,43	1,08	*
	2022	-0,51	1,15	*
	2023	-6,4	1,13	
	2024	-1,52	1,31	
	2025	-0,81	1,42	
2018	2013	0,41	1,33	*
	2014	0,35	1,24	*
	2015	0,34	1,04	*
	2016	0,33	0,94	*
	2017	0,21	0,95	*
	2019	-0,73	1,03	*
	2020	-0,22	0,94	*
	2021	-0,22	1,07	**
	2022	-0,3	1,14	*
	2023	-6,18	1,12	
	2024	-1,31	1,3	
	2025	-0,6	1,41	
2019	2013	1,14	1,39	*
	2014	1,08	1,31	*
	2015	1,07	1,13	*
	2016	1,06	1,03	*
	2017	0,94	1,04	*
	2018	0,73	1,03	*
	2020	0,51	1,04	*
	2021	0,51	1,15	*
	2022	0,42	1,22	*

	2023	-5,46	1,2				
	2024	-0,59	1,37				
	2025	0,12	1,48				
2020	2013	0,63	1,33	*			
	2014	0,57	1,24	*			
	2015	0,56	1,05	*			
	2016	0,56	0,95	*			
	2017	0,43	0,96	*			
	2018	0,22	0,94	*			
	2019	-0,51	1,04	*			
	2021	0	1,08		2,03	0,26	*
	2022	-0,08	1,15		1,79	0,25	*
	2023	-5,96	1,12		3,77	0,25	*
	2024	-1,09	1,3		4,96	0,25	*
	2025	-0,38	1,42		4,18	0,27	*
2021	2013	0,63	1,42	*			
	2014	0,57	1,34	*			
	2015	0,56	1,16	*			
	2016	0,55	1,07	*			
	2017	0,43	1,08	*			
	2018	0,22	1,07	**			
	2019	-0,51	1,15	*			
	2020	0	1,08		-2,03	0,26	*
	2022	-0,09	1,25		-0,24	0,19	
	2023	-5,97	1,23		1,75	0,19	*
	2024	-1,1	1,4		2,93	0,2	*
	2025	-0,39	1,51		2,16	0,22	*
2022	2013	0,71	1,48	*			
	2014	0,66	1,4	*			
	2015	0,64	1,23	*			
	2016	0,64	1,14	*			
	2017	0,51	1,15	*			
	2018	0,3	1,14	*			
	2019	-0,42	1,22	*			
	2020	0,08	1,15		-1,79	0,25	*
	2021	0,09	1,25		0,24	0,19	
	2023	-5,88	1,29		1,98	0,18	*
	2024	-1,01	1,45		3,17	0,19	*
	2025	-0,3	1,56		2,39	0,21	*
2023	2013	6,59	1,46				
	2014	6,54	1,38				
	2015	6,53	1,21				
	2016	6,52	1,12				
	2017	6,4	1,13				
	2018	6,18	1,12				
	2019	5,46	1,2				
	2020	5,96	1,12		-3,77	0,25	*
	2021	5,97	1,23		-1,75	0,19	*
	2022	5,88	1,29		-1,98	0,18	*
	2024	4,87	1,43		1,19	0,19	*
	2025	5,58	1,54		0,41	0,21	
2024	2013	1,72	1,6				*
	2014	1,67	1,53				*
	2015	1,65	1,37				*
	2016	1,65	1,3				*
	2017	1,52	1,31				*
	2018	1,31	1,3				*
	2019	0,59	1,37				*
	2020	1,09	1,3		-4,96	0,25	*
	2021	1,1	1,4		-2,93	0,2	*
	2022	1,01	1,45		-3,17	0,19	*
	2023	-4,87	1,43		-1,19	0,19	*
	2025	0,71	1,67		-0,78	0,22	**

2025	2013	1,01	1,7	**			*
	2014	0,96	1,63	**			
	2015	0,94	1,49	**			
	2016	0,94	1,42	**			
	2017	0,81	1,42				
	2018	0,6	1,41				
	2019	-0,12	1,48				
	2020	0,38	1,42		-4,18	0,27	*
	2021	0,39	1,51		-2,16	0,22	*
	2022	0,3	1,56		-2,39	0,21	*
	2023	-5,58	1,54		-0,41	0,21	
	2024	-0,71	1,67		0,78	0,22	**

* sig: <0.001; ** sig: <0.05

Table 5: Games–Howell Post-Hoc Comparisons of Engagement by the years

To gain a clearer understanding of the temporal evolution of post engagement, post-hoc comparisons were conducted using the Games–Howell procedure, as Levene's test indicated violations of the homogeneity of variance assumption across all publication years ($p < 0.05$).

Results reveal divergent temporal dynamics across platforms. On Instagram, engagement increases progressively over time and reaches a clear peak in 2023. On TikTok, engagement peaks earlier, in 2020, followed by a decline and later stabilization.

On Instagram, almost every year from 2013 to 2022 differs significantly, but the most notable discontinuity appears in 2023, when engagement sharply increases. The differences between 2023 and all preceding years are substantial (e.g., 2023 vs. 2018 = +6.18; 2023 vs. 2019 = +5.46).

On TikTok, the platform reaches its engagement peak in 2020, with this year showing significant differences compared to all subsequent periods (e.g., 2020 vs. 2023 = +3.77; 2020 vs. 2024 = +4.96). These comparisons confirm a post-pandemic decline and later stabilization of engagement.

These findings suggest that Instagram's engagement crescendo culminates in 2023, likely linked to the consolidation of video-based formats and intensified user interaction, whereas TikTok reflects an earlier peak associated with pandemic-driven digital activity followed by normalization. The use of the Games–Howell test ensures robust comparisons despite unequal sample sizes and heterogeneous variances across years.

RQ3. How do engagement levels differ across the all the profiles on both social media platforms?

		Instagram		
Brand (i)	**Brand (j)**	**Mean (i-j)**	**Std.Error**	**Sign.**
Bumble Spain	Grindr Global	102,19	3,12	
	Tinder Global	102,1	3,14	
Grindr Global	Bumble Spain	-102,19	3,12	
	Tinder Global	-0,09	0,44	

Tinder Global	Bumble Spain	-102,1	3,14	
	Grindr Global	0,09	0,44	

		TikTok		
Brand (i)	**Brand (j)**	**Mean (i-j)**	**Std.Error**	**Sign.**
Bumble Global	Grindr Global	-2,36	0,19	
	Iris Dating	-0,17	0,25	
	Tinder Global	-0,12	0,15	*
	Tinder Spain	2,15	0,24	*
Grindr Global	Bumble Global	2,36	0,19	*
	Iris Dating	2,19	0,28	*
	Tinder Global	2,24	0,19	*
	Tinder Spain	4,52	0,27	
Iris Dating	Bumble Global	0,17	0,25	*
	Grindr Global	-2,19	0,28	
	Tinder Global	0,05	0,26	*
	Tinder Spain	2,32	0,32	
Tinder Global	Bumble Global	0,12	0,15	*
	Grindr Global	-2,24	0,19	
	Iris Dating	-0,05	0,26	*
	Tinder Spain	2,27	0,24	*
Tinder Spain	Bumble Global	-2,15	0,24	*
	Grindr Global	-4,52	0,27	*
	Iris Dating	-2,32	0,32	*
	Tinder Global	-2,27	0,24	*

sig: <0.001; ** sig: <0.05

Table 6: Games–Howell Post-Hoc Comparisons of Engagement by Brands

Similarly, for the brand groups, the Games–Howell procedure was used, as it is robust to heteroscedasticity and unbalanced sample sizes. Results reveal strong cross-platform asymmetries in engagement distribution across profiles. On Instagram, engagement is highly concentrated in a single outlier, whereas TikTok shows a more stratified and competitive landscape.

On Instagram**,** the contrasts reveal an extremely polarized pattern driven by the exceptional performance of Bumble Spain**,** whose engagement levels are significantly higher than both Grindr Global and Tinder Global**.** The mean differences exceed 102 points in both comparisons, confirming that Bumble Spain operates as a clear outlier with disproportionately strong audience interaction. In contrast, the comparison between Grindr Global and Tinder Global shows no significant difference, indicating similarly low and stable engagement levels for the two macro accounts.

On TikTok**,** the pattern is more heterogeneous. Grindr Global achieves significantly higher engagement than all other brands, with large positive differences when compared to Bumble Global, Iris Dating, Tinder Global, and especially Tinder Spain. Iris Dating, despite being a nano profile, shows significantly higher engagement than Bumble Global and Tinder Global, positioning itself as a strong emerging competitor. Meanwhile, Tinder Spain records significantly lower engagement than every other profile, consistently yielding negative differences.

The post-hoc results show that engagement on Instagram is disproportionately driven by a single micro account (Bumble Spain), whereas TikTok presents a more clearly stratified

pattern, with Grindr Global leading, Iris Dating emerging as a strong niche performer, and Tinder Spain consistently lagging. These cross-platform differences suggest that engagement is shaped by a combination of brand identity, community resonance, and the distinct interaction dynamics characteristic of each platform.

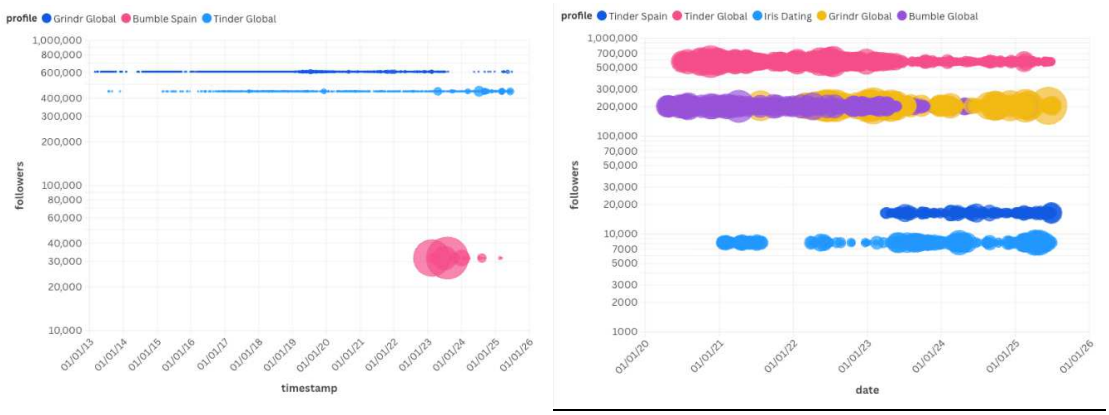

Figure 5: Distribution of Engagement by profiles, Followers, and Year on Instagram and TikTok

Figure 5 first image illustrates the distribution of engagement across brand profiles in relation to follower count and publication year on Instagram. The X-axis represents the timeline (2013–2025), while the Y-axis indicates the number of followers per account. Each circle corresponds to an individual post, with its size reflecting the level of engagement achieved and its color identifying the brand profile (Grindr Global, Bumble Spain, or Tinder Global). The visualization shows that Bumble Spain generated the highest engagement levels, represented by larger bubbles, particularly from 2023 onwards, whereas Grindr Global and Tinder Global maintained steadier activity with lower engagement averages. These findings highlight the distinctive performance of localized campaigns in driving audience interaction compared to global profiles.

Figure 5 second image shows the distribution of engagement across brand profiles on TikTok, plotted in relation to the number of followers and publication date. The X-axis represents time, while the Y-axis indicates follower count. Each circle corresponds to an individual post, with its size reflecting the engagement level and its color representing the brand profile (Tinder Spain, Tinder Global, Iris Dating, Grindr Global, or Bumble Global). This figure shows in a more visual way yhe same results as the anova above, Grindr Global stands out for achieving the highest engagement rates with relatively moderate follower bases, while Tinder Global and Bumble Global display consistent but lower engagement levels across time. Iris Dating maintains a smaller yet stable activity pattern, showing that niche or emerging brands can still sustain user interaction within more specific audience segments.

RQ4. Which thematic topics published by brand-generated profiles achieve higher levels of engagement across social media platforms?

		Instagram			TikTok		
Topics (i)	**Topics (j)**	**Mean (i-j)**	**Std.Error**	**Sign.**	**Mean (i-j)**	**Std.Error**	**Sign.**
Cultural Impact	Dating Advice	-5,62	1,6		0,36	0,66	
	Humor and Entretaiment	-0,19	1,18	**	-0,27	0,65	
	Influencer Experiences	-0,37	1,14		-0,37	0,64	
	Online Dating	-0,35	1,3		0,5	0,66	

	Relationships Dynamics	-0,08	2,41		-0,35	0,74	
Dating Advice	Cultural Impact	5,62	1,6		-0,36	0,66	
	Humor and Entretaiment	5,43	1,25		-0,63	0,2	**
	Influencer Experiences	5,25	1,21		-0,72	0,2	**
	Online Dating	5,26	1,37		0,14	0,24	
	Relationships Dynamics	5,53	2,44		-0,71	0,42	
Humor and Entretaiment	Cultural Impact	0,19	1,18	**	0,27	0,65	
	Dating Advice	-5,43	1,25		0,63	0,2	**
	Influencer Experiences	-0,18	0,55		-0,1	0,16	
	Online Dating	-0,16	0,84		0,77	0,2	**
	Relationships Dynamics	0,1	2,19		-0,08	0,4	
Influencer Experiences	Cultural Impact	0,37	1,14		0,37	0,64	
	Dating Advice	-5,25	1,21		0,72	0,2	**
	Humor and Entretaiment	0,18	0,55		0,1	0,16	
	Online Dating	0,01	0,78		0,86	0,2	*
	Relationships Dynamics	0,28	2,17		0,02	0,4	
Online Dating	Cultural Impact	0,35	1,3		-0,5	0,66	
	Dating Advice	-5,26	1,37		-0,14	0,24	
	Humor and Entretaiment	0,16	0,84		-0,77	0,2	**
	Influencer Experiences	-0,01	0,78		-0,86	0,2	*
	Relationships Dynamics	0,27	2,26		-0,85	0,42	
Relationships Dynamics	Cultural Impact	0,08	2,41		0,35	0,74	
	Dating Advice	-5,53	2,44		0,71	0,42	
	Humor and Entretaiment	-0,1	2,19		0,08	0,4	
	Influencer Experiences	-0,28	2,17		-0,02	0,4	
	Online Dating	-0,27	2,26		0,85	0,42	

sig: <0.001; ** sig: <0.05

Table 7: Games–Howell Post-Hoc Comparisons of Engagement by topics

In line with the other variables, the brand category was also analyzed using the Games–Howell procedure, as the Levene test indicated that the assumption of homogeneity of variances was not met.

Results reveal clear cross-platform differences in thematic performance. On Instagram, advice-oriented content dominates engagement, whereas on TikTok, engagement is driven by expressive, influencer-led, and entertainment-based content.

On Instagram**,** the contrast matrix shows that Dating Advice overwhelmingly outperformed all other thematic categories. Its engagement levels were significantly higher than Cultural Impact, Humor and Entertainment, Influencer Experiences, Online Dating, and Relationship Dynamics, with mean differences above 5 points in every comparison. This confirms that practical, advice-oriented posts drive substantially more

interaction than any other type of content on the platform. By contrast, categories such as Humor and Entertainment, Cultural Impact, and Online Dating present only small, often non-significant differences among each other, indicating comparatively homogeneous and low engagement levels across these themes.

On TikTok**,** a different pattern emerges. Humor and Entertainment, Influencer Experiences, and Relationship Dynamics consistently outperform Dating Advice and, in many cases, Cultural Impact. Significant positive differences indicate that posts centered on influencer participation, cultural narratives, and relationship dynamics generate higher engagement than advice-oriented or informational content. Conversely, Dating Advice appears as one of the weakest performers on TikTok, yielding significantly lower engagement than Humor and Entertainment as well as Influencer Experiences. This reflects the platform's preference for expressive, culturally embedded, and creator-driven storytelling.

On Instagram, practical and advice-oriented content tends to generate the strongest interaction, while on TikTok engagement concentrates around emotionally expressive or socially contextualized posts, particularly those driven by influencers or humor. These differences reflect the distinct communicative logic of each platform and the expectations of their respective audiences, which shape how thematic connects across environments.

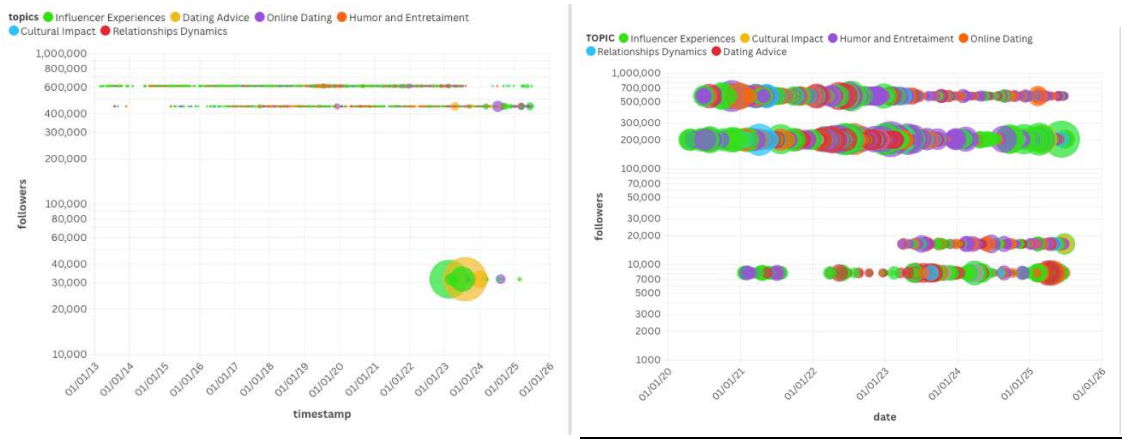

Figure 6: Distribution of Engagement by Topics, Followers, and Year on Instagram and TikTok

In contrast, Figure 6 first picture visualizes engagement distribution by topic, follower count, and publication year. As in the previous figure, the X-axis denotes time and the Y-axis the number of followers, with each circle's size representing engagement intensity. Here, colors correspond to thematic categories, including Influencer Experiences, Dating Advice, Online Dating, Humor and Entertainment, Cultural Impact, and Relationship Dynamics. The results reveal that posts centered on influencer experiences and dating advice achieved the highest engagement, particularly in recent years, while topics such as cultural impact and relationship dynamics generated lower audience responses.

Also Figure 6 second picture showns engagement patterns by topic, followers, and year on TikTok. As in the previous figure, the X-axis denotes the timeline, the Y-axis shows follower count, and the size of each bubble represents engagement magnitude. The color scheme corresponds to different thematic categories. The figure highlights that topics related to influencer experiences and cultural impact tend to generate larger engagement bubbles, particularly among accounts with higher follower counts. In contrast, content centered on dating advice and humor

appears smaller and more dispersed, suggesting that educational or entertainment-oriented posts produce lower interaction levels.

RQ5. How does engagement vary according to content format (image, video, carousel) and influencer size (macro, micro, nano) across Instagram and TikTok?

		Instagram
		Influencers
F		3632,21
Sign. / p-value		0
t		-2,07
df		14
Sig. (2-tailed) / p (2-tailed)		0,058
Mean Difference		-102,16
Std. Error of the Difference		49,39
95% Confidence Interval of the Difference	Lower	-208,1
	Upper	3,77

Table 8: t-test type of influencers versus engagement

		TikTok		
		Mean (i-j)	**Std.Error**	**Sign.**
Macro-influencer	Micro-influencer	2,65	0,24	*
	Nano-influencer	0,33	0,25	
Micro-influencer	Macro-influencer	-2,65	0,24	*
	Nano-influencer	-2,32	0,33	*
Nano-influencer	Macro-influencer	-0,33	0,25	
	Micro-influencer	2,32	0,33	*

sig: <0.001; ** sig: <0.05
Table 9: Games–Howell Post-Hoc Comparisons of Engagement by type of influencers

Results reveal contrasting patterns across platforms. On Instagram, smaller profiles tend to generate higher engagement, although this effect is not statistically robust. On TikTok, engagement is significantly lower for micro profiles, while macro and nano accounts achieve higher and comparable levels of interaction.

The t-test results in table 8 for Instagram indicate that the assumption of equal variances is not met (Levene's $F = 3632.21$, $p < 0.001$), so the "variances not assumed" row must be interpreted. In this case, the difference between macro and micro profiles does not reach conventional statistical significance ($t = –2.07$, $df = 14$, $p = 0.058$). Even so, the mean difference is very large (–102.16), showing that micro profiles obtain substantially higher engagement than macro profiles. However, this difference cannot be confirmed with full statistical certainty due to the extremely small size of the micro group ($n = 15$) and its high variability ($SD = 191.29$). The wide 95% confidence interval (–208.1 to 3.77) reflects this dispersion and explains the lack of significance.

On TikTok, the post-hoc comparisons reveal a different and statistically robust pattern. Macro influencers achieve significantly higher engagement than micro influencers (Mean

diff. = 2.65, SE = 0.24, p < 0.001). Likewise, nano profiles also outperform micro profiles (Mean diff. = –2.32, SE = 0.33, p < 0.001), while no significant differences appear between macro and nano accounts. These results show that micro profiles generate the lowest engagement on TikTok, whereas macro and nano profiles reach higher and relatively similar levels of interaction.

Instagram shows occasional surges in engagement for small accounts when a post becomes highly viral, although the limited size of the micro-profile sample prevents statistically confirming this effect. TikTok, however, presents a far more stable behaviour: micro accounts consistently underperform compared to macro and nano profiles, reflecting the platform's visibility structure and its tendency to amplify creators with broader reach.

		Instagram		
Type (i)	**Type (j)**	**Mean (i-j)**	**Std.Error**	**Sign.**
Image	Sidecar	-0,37	0,63	*
	Video	-1,55	0,53	
Sidecar	Image	0,37	0,63	*
	Video	-1,18	0,69	
Video	Image	1,55	0,53	
	Sidecar	1,18	0,69	

sig: <0.001; ** sig: <0.05

Table 10: Games–Howell Post-Hoc Comparisons of Engagement by type of content

The analysis of content type on Instagram shows clear differences in engagement depending on the format. Images generate significantly lower engagement than sidecar posts (Mean diff. = –0.37, SE = 0.63, p < 0.05) and especially lower than videos (Mean diff. = –1.55, SE = 0.53). Similarly, sidecar posts produce less interaction than videos (Mean diff. = –1.18, SE = 0.69). These results indicate that video is the most effective format for generating engagement on Instagram, whereas static formats such as images and sidecar posts yield comparatively lower interaction. On TikTok, due to the platform's native design, all analyzed content consists of videos, with an average engagement level of 4.18 (SD = 3.77). The absence of additional formats prevents internal comparisons, but the relatively high mean reinforces the strong capacity of video-based content to drive user participation in audiovisual environments. Video content emerges as the most effective format for maximizing engagement across both platforms, while TikTok exhibits higher and more consistent interaction levels, likely driven by its inherently audiovisual ecosystem.

5. Discussion

This study set out to examine how dating-app brands use emotional storytelling on Instagram and TikTok, and how sentiment, emotion, topic, profile characteristics, and format relate to engagement. Taken together, the findings show that engagement is not driven by a single factor, but by the interaction between emotional tone, platform logic, brand positioning, and content format. In that sense, the study helps understand how dating-app brands themselves construct affective narratives across platforms and how those narratives translate into audience response.

Recent scholarship on dating apps explores the complex relationship between technology and society, from large-scale cultural and national settings to the intimate, everyday experiences of individual users. The present findings extend this literature by showing that dating-app brands do not merely advertise products or services on social media; they actively participate in the cultural production of intimacy, identity, and belonging through platform-specific emotional storytelling. This point connects directly to work that frames dating apps as mediating technologies and to research showing that intimacy increasingly circulates across adjacent social media environments rather than remaining confined within the app itself (Wu & Trottier, 2022; Duguay et al., 2020).

In this context, the present study shows that emotion is a central driver of engagement in dating-app communications, but that its effects are strongly platform-dependent. Across both Instagram and TikTok, posts classified as having negative sentiment generate higher engagement than neutral or positive content, echoing the well-documented negativity bias in social media (Appel et al., 2020; Berger & Milkman, 2012; Liu et al., 2023). On Instagram, sadness in particular stands out as the emotion most strongly associated with elevated engagement, clearly outperforming all other emotional categories. On TikTok, by contrast, emotional categories are more homogeneous in statistical terms, suggesting that while negativity still matters at the sentiment level, fine-grained emotional distinctions are less decisive. At the same time, when positive affect is framed as authentic and self-expressive, it appears to support longer-term affinity, consistent with prior work on emotional tone, narrative coherence, and trust (Dessart et al., 2015; Hudson et al., 2016; Jun & Yi, 2020). Methodologically, the text-based sentiment and emotion pipeline aligns with recent advances that quantify affective signals at scale (Belal et al., 2023), reinforcing that measurable affective cues provide useful proxies for downstream interaction. More specifically, the results suggest that emotionally difficult or tension-producing narratives may be especially effective in attracting attention because they invite recognition, debate, and relational identification. In the context of dating-app branding, this is particularly meaningful: messages about disappointment, vulnerability, or "red flags" may resonate because they mirror the affective ambiguity of contemporary dating culture. Rather than weakening the brand, a measured use of negative emotion may therefore function as a mechanism of relevance and authenticity.

Second, platform logics shape which themes and formats travel. On Instagram, advisory and informational posts, especially dating advice, achieve the highest engagement, outperforming cultural, humorous, and general online-dating content. This pattern fits Instagram's more curated and aspirational grammar, where practical tips and influencer-anchored guidance are readily shared and saved. TikTok, in contrast, rewards emotionally expressive and socially contextualized narratives: topics linked to influencer experiences, cultural impact, and relationship dynamics tend to generate stronger engagement than advice-oriented content. These findings resonate with research describing TikTok as a creativity-driven, algorithmically volatile space that amplifies affect-rich, culturally embedded storytelling (Anderson, 2020; Cheng & Li, 2023; Easwar et al., 2023; Femenia-Serra et al., 2022). Temporal patterns further underscore these platform differences. TikTok engagement peaks early, in 2020, coinciding with pandemic-era surges in digital use (Darwiesh et al., 2022), and then normalizes, whereas Instagram reaches its maximum in 2023, aligning with the consolidation of video-first formats and suggesting that shifts in affordances co-evolve with engagement. These temporal and thematic differences reinforce the idea that Instagram and TikTok should not be treated as equivalent channels. Instead, they operate as distinct communicative environments with different affordances,

audience expectations, and reward systems. The same brand narrative, therefore, is unlikely to generate identical responses across platforms unless it is adapted to each platform's logic of visibility and participation.

Third, who communicates matters as much as what is communicated. Although all analyzed accounts belong to brands, the results show that engagement levels are not simply a function of follower size but of each brand's voice, positioning, and community alignment. On TikTok, Grindr Global, a macro profile, achieves the highest engagement, with Iris Dating emerging as a strong niche performer, while Tinder Spain systematically underperforms. On Instagram, Bumble Spain, a micro account, records exceptionally high engagement compared to the macro profiles of Grindr Global and Tinder Global, even though the small sample size prevents drawing definitive statistical conclusions. Taken together, these patterns suggest that both large, community-anchored brands and smaller, localized profiles can generate high engagement, albeit through different mechanisms: the former leverage visibility and a strong sense of belonging, while the latter succeed through proximity, authenticity, and locally resonant storytelling. This echoes prior work that understands dating platforms as sites where identity, intimacy, and community are continuously performed and negotiated (Duguay, 2017; Duguay et al., 2020) . and supports the view that authenticity, inclusivity, and community orientation are key drivers of participation (MacLeod & McArthur, 2019). This is a key contribution because it suggests that effective brand communication in digital dating ecosystems depends not only on reach, but also on the symbolic fit between the brand's public voice and the communities it addresses. Grindr's strong performance on TikTok, for example, can be read not simply as the effect of follower size, but as evidence that community-based identity narratives can travel particularly well in platform environments that reward cultural specificity, expressiveness, and social visibility. At the same time, the strong performance of Bumble Spain on Instagram indicates that smaller and more localized accounts may benefit from a sense of closeness and contextual relevance, even if those findings should be interpreted with caution due to the limited sample.

Fourth, format and influencer size interact with these dynamics. On Instagram, video content clearly outperforms images and sidecar posts, confirming the strategic importance of dynamic, narrative-driven audiovisual formats. On TikTok, where all posts are videos, engagement levels are generally higher and more stable, reinforcing the platform's native advantage for short-form video storytelling (Mendelson & Smith, 2024; Balcioglu & Cerasi, 2025). With respect to influencer size, TikTok results show that macro and nano brand profiles obtain significantly higher engagement than micro profiles, suggesting a double engine of scale and niche authenticity, whereas on Instagram the apparent superiority of the micro profile (Bumble Spain) is driven by a small set of highly viral posts and should be interpreted cautiously. These findings also help answer RQ5 more clearly: format is not a secondary stylistic choice, but one of the mechanisms through which emotional storytelling becomes legible and engaging. Video appears to be especially effective because it combines verbal, visual, and temporal cues in ways that intensify narrative immersion and perceived authenticity. For dating-app brands, this means that emotionally resonant communication is not only about what is said, but also about how platform-native affordances allow that message to be staged, embodied, and circulated.

Across the five research questions, the results therefore converge on one broader theoretical point: dating-app brands function as affective intermediaries in cross-platform cultures of intimacy. Their social media presence extends the symbolic life of the app beyond matching and messaging, transforming the brand into a narrator of emotional

norms, relational advice, sexual identity, humor, and cultural belonging. This helps connect the study back to the literature review, which positioned dating apps not only as technological tools but as infrastructures through which intimacy is organized, interpreted, and publicly performed. The present findings show that brands are active participants in that process.

The study also has practical implications for communication strategy. First, brands should not assume that positive emotional tone is always the safest or most effective route to engagement; carefully framed negative sentiment, especially when tied to recognizable dating tensions, may generate stronger interaction. Second, platform adaptation is essential: advice-oriented and savable content appears particularly effective on Instagram, whereas TikTok rewards culturally embedded, creator-led, and emotionally expressive narratives. Third, collaborations with creators and influencer-like storytelling formats appear especially valuable when they humanize the brand and connect it to lived experience rather than to purely promotional messages. Finally, brands should pay closer attention to the strategic role of community voice, especially when addressing LGBTQ+ publics, local audiences, or niche relationship markets, because engagement seems to depend heavily on whether the communication feels socially situated and credible.

At the same time, these conclusions should be interpreted in light of several limitations. The study relies on textual content only, which means that a substantial part of meaning-making on Instagram and especially TikTok—visual style, editing rhythm, sound, facial expression, and embodied performance—remains outside the analysis. In addition, the sample is uneven across platforms and profiles, with some restricted accounts and with Instagram results partly influenced by the exceptional performance of a very small profile (Bumble Spain). The AI-assisted coding approach also offers scale and consistency, but it inevitably simplifies the ambiguity, irony, and multimodal richness of platform communication.

6. Conclusions & Future research

This study contributes to research on digital intimacy, and social media branding by showing that the emotional effectiveness of dating-app communication is both platform-specific and strategically structured. Across a corpus of 6,934 brand-generated posts from Instagram and TikTok, the findings indicate that negative sentiment tends to generate the highest engagement, that Instagram and TikTok reward different thematic and narrative forms, that engagement varies meaningfully across brand profiles, and that audiovisual and creator-centered formats play a central role in amplifying interaction.

The main conclusion is that dating-app brands should be understood not only as marketers of a service, but also as cultural actors: their social media communication extends the meaning of the app beyond the app interface itself, translating intimacy into advice, humor, vulnerability, identity claims, and community storytelling. In doing so, these brands help organize the emotional vocabulary through which users make sense of digital relationships. The study focused exclusively on textual content (captions and descriptions), which provides valuable insights into the emotional and thematic construction of dating app communication. However, future research could adopt a more multimodal approach, incorporating visual and audio analysis to better capture the expressive richness of platforms such as TikTok and Instagram. Additionally, the scope of this research was limited to Instagram and TikTok, two platforms that represent

different interaction logics and user behaviors. Expanding the analysis to other networks could offer a more comprehensive view of how emotional storytelling and engagement dynamics vary across social media ecosystems. Moreover, this study examined a selected group of dating app brands. Future work could include a broader range of companies and regional accounts to explore how market positioning, localization, or brand identity affect user interaction. Finally, an interesting research avenue would be to connect social media engagement metrics with app performance indicators, such as the number of downloads, user retention, or active users. This would help determine whether higher engagement in social networks translates into measurable behavioral outcomes and provide a more causal understanding of the relationship between marketing communication and user adoption. Future work could also test these findings with more balanced cross-brand samples, stronger validation of AI-based coding, and models that jointly estimate the effects of tone, topic, format, account size, and platform. That would make it possible to distinguish more clearly between platform effects, brand effects, and content effects.

Overall, the article shows that emotional storytelling is not peripheral to dating-app branding: it is one of the main ways in which these platforms become socially meaningful.

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