CHAPTER 6

Strategic Communication in Digital Ecosystems: A Critical Discourse Analysis of Dating Applications

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Abstract: Dating technologies offer services that assist single persons in finding a partner, yet several users report that these technologies have made it more difficult to find one. Using the theoretical framework of critical discourse analysis and strategic communication, we explore in-depth what 50 dating apps promise users and by which discursive means. A key finding is that dating apps are communicating in line with two main discourses: (1) a romantic discourse prevalent in modern society, which is a narrative about finding the right one, and experiencing great and long-lasting love; (2) An optimistic and magical image of technology – which will assist the user in finding "the One" with reference to the apps' successful "matches" in the past (number of couples previously matched), present (number of app members) and future (number of people who are likely to become members shortly). We argue that we need to include the interconnected ecosystem of new media in the 21st century that app companies are part of, in our studies in strategic communication. When dating app producers communicate how their apps will benefit their users, they employ hegemonic social practices (behaviour, norms, and procedures) of love and technology.

Keywords: dating applications, strategic communication, critical discourse analysis

Introduction

Internet meetings through dating apps and platforms increasingly outperform the roles family and friends play in bringing couples together (Rosenfeld et al., 2019). Dating apps and platforms provide a virtual space for users to contact each other and play a key role in forming face-to-face relationships (Barraket & Henry-Waring, 2008). The number of involuntary singles has been rising significantly in industrialized societies (Statista, 2021), and the single market thus represents significant business opportunities. The American Match Group, the parent company of Tinder, Match, Hinge, and OkCupid, is one of the largest actors in this market. The company's total revenue in the fourth quarter of 2020 was roughly 635 million U.S. dollars. With over six million monthly downloads, as of January 2021, Tinder is the most popular dating app in the world, generating a monthly in-app purchase revenue of nearly 65 million U.S. dollars (Statista, 2022). 280 million online users of dating services are forecasted for 2024, and the global revenue of matchmaking dating services is estimated at nearly 655 million U.S. dollars in 2020 and will, according to statistical forecasts, reach more than 2.5 billion U.S. dollars by 2024 (Statista, 2022). The dating industry and platforms are powerful because they are attracting an increasing number of customers, with an image and promise that "love is only a few clicks and dollars away" (Barraket & Henry-Waring, 2008).

Obviously, technology offering to assist the user with finding a partner is a big and thriving business. Surprisingly, several users describe the platform as a negative experience: dating apps make the process of finding a partner more difficult (Romano, 2017). Dating apps can also be experienced as a superficial arena that promotes casual rather than serious relationships, resulting in users quitting and resorting to offline dating (Brubaker et al., 2016). In this chapter, we examine this paradox by addressing two research questions: (1) What do dating technologies promise users, and (2) What discourses are these promises based on?

To answer these two RQs, we conducted a critical discourse analysis (Fairclough, 1995) of 50 dating apps focusing on narratives concerning love and matchmaking. As a theoretical framework, we employ a critical discourse analysis. The chapter contributes to the field of strategic communication by using an interdisciplinary and critical approach, an approach recently called for by Heide, von Platen, Simonsson and

Falkheimer (2018), to develop strategic communication as a unique and innovative domain. The chapter is organised as follows. First, we present previous research and our theoretical approach. This is followed by the methodology section, which presents how we collected data; next, we present our findings. The chapter closes with a discussion of our findings, a conclusion, our study's limitations, and a call for further research.

Previous research and theoretical framework

Research from a variety of academic schools has explored different aspects related to online dating (e.g., swipe practices, interaction patterns, gender differences, representations of self, and so on (for a comprehensive overview of digital dating research see Degin et al. (2015) or Wu & Trottier (2022)), but few have studied how dating platforms communicate and advertise their services.

Some have, however, mentioned marketing dimensions in their dating site studies. Heino et al. (2010), for example, state that the marketing for top online dating sites reinforces the assessment of offering a wider pool of potential partners than is usually available in face-to-face encounters (Heino et al., 2010). They state that Match.com marketed itself for many years as providing "[m]illions of possibilities to meet your match" and that Match.com presents itself as a service that offers individuals countless opportunities to meet a romantic partner: a virtual marketplace of potential dating partners (Heino et al., 2010). Houran et al. (2004) also point to this marketing practice, exemplified by the Chinese dating site eHarmony which promises that love is just a click away. The advertisements on this dating site feature romance and warmth, and "no matter what values the registered user is looking for, she can find a suitable partner at Zhenai.com" (Wen, 2015).

Using scientific claims in advertising is a well-known marketing rhetoric, also in the dating business. One of the first dating sites, Match.com, already claimed twenty years ago that they used a "Personal Matching" method based on a "15-year research initiative" (Houran et al., 2004, p. 508; see also Pettersen & Døving, 2023). Economics of information theory suggests that consumers will be more sceptical of subjective claims than of objective claims when information about a product is difficult to evaluate before a purchase (Dodds et al., 2008). Summarized, besides the promise of

love and relationship, marketing claims identified in the literature revolve around matching technology and algorithms that will guarantee the user the wanted outcome.

Platform capitalism

Dating apps are part of the app economy and the so-called platform capitalism (Srnicek, 2017). Platforms are ecosystems that, according to Hands, capture "digital life in an enclosed, commercialized and managed realm" (2013, p. 1). Platforms serve as intermediators between various types of stakeholders including users, advertisers, service providers, and physical objects such as smartphones and game consoles (Hammer, 2021). Platform economy denotes the tendency that organizations replace their previous value-chained and linear business models with digital platform business models where digital data is a key component for value creation (Pettersen, 2020). Mobile apps, for instance, have changed the way business is conducted. The mobile app economy comprises two distinct platform markets through which app developers make revenue: app platforms and ad platform markets. App sales are facilitated by app platforms, whereas advertising matching is intermediated by ad platforms (Zennyo, 2021).

Developers distribute apps to users through app platforms such as Apple App Store and Google Play Store. Some of the more common revenue models are (1) premium (pay-per-download fees or copy sales), (2) freemium (in-app purchases), (3) subscription fees, and (4) advertising. Many apps use a combination of these. In most dating apps and platforms, it is possible to create a profile for free, yet the opportunities for search, interaction, and communication with others are typically limited for non-payers. Until recently, the ad revenue model has been a cornerstone of app monetization. However, due to privacy legislation, Apple and Google have started revamping the rules around online data collection (Farago, 2020). Privacy is predicted to be a game-changer for how apps create revenue, and in-app purchase-models are already outperforming ad-revenue models (Farago, 2020).

Strategic communication

The app economy illustrates the shift from traditional mass media to digital third-party platforms (Gulbrandsen & Just, 2016). This poses challenges

for how organizations communicate strategically. Although the definition of strategic communication has evolved over time, a key understanding is that strategic communication comprises different forms of goal-oriented communication inside and between organizations, their stakeholders, and society (Falkheimer & Heide, 2018). An established understanding is that strategic communication is the practice of deliberate and purposive communication that a communication agent enacts in the public sphere to reach a set of – both commercial and non-commercial – goals (Holtzhausen & Zerfass, 2015, p. 74).

The main object of study in strategic communication research has typically been directed to managers and their perspectives, and most of the research has concerned public relations (Heide et al., 2018). Today, however, communication takes place on different platforms, where interaction between humans and technologies often produces unforeseen results. Organizations are not social units in control of the communication, but part of networks with fluid and shifting boundaries (Gulbrandsen & Just, 2016). One of the places dating companies communicate most directly to the users and with some degree of control is in the app stores. These are therefore important venues for app companies.

Google and Apple are key players in the app economy and can act as monopolistic gatekeepers between app developers and their users (Zennyo, 2021). Thus, dating companies need to strategize – act and position themselves – within the app stores when trying to reach their goals. People typically click on items at the top of the recommendation list (Keane et al., 2008), but how to get there is not straightforward. Both Apple App Store and Google App Store use complex algorithms to sort search results. Although the exact ranking algorithms are not publicly available, some known factors that highly influence a company's app store rank are the name of the app, its subtitle, keywords, index keywords, tag, number of downloads, and more (App Radar, n.d.). Also, app ratings and reviews have a say in findability in the app stores (App Radar, n.d.). Hence, dating app users' ratings and reviews are content that the companies lack control of. Another important strategic communication component in the app stores is how the dating companies are talking about their services within the distributed space of app stores (figure 2). This text is located behind "About this app" (Norwegian: "Om denne appen") (figure 1).
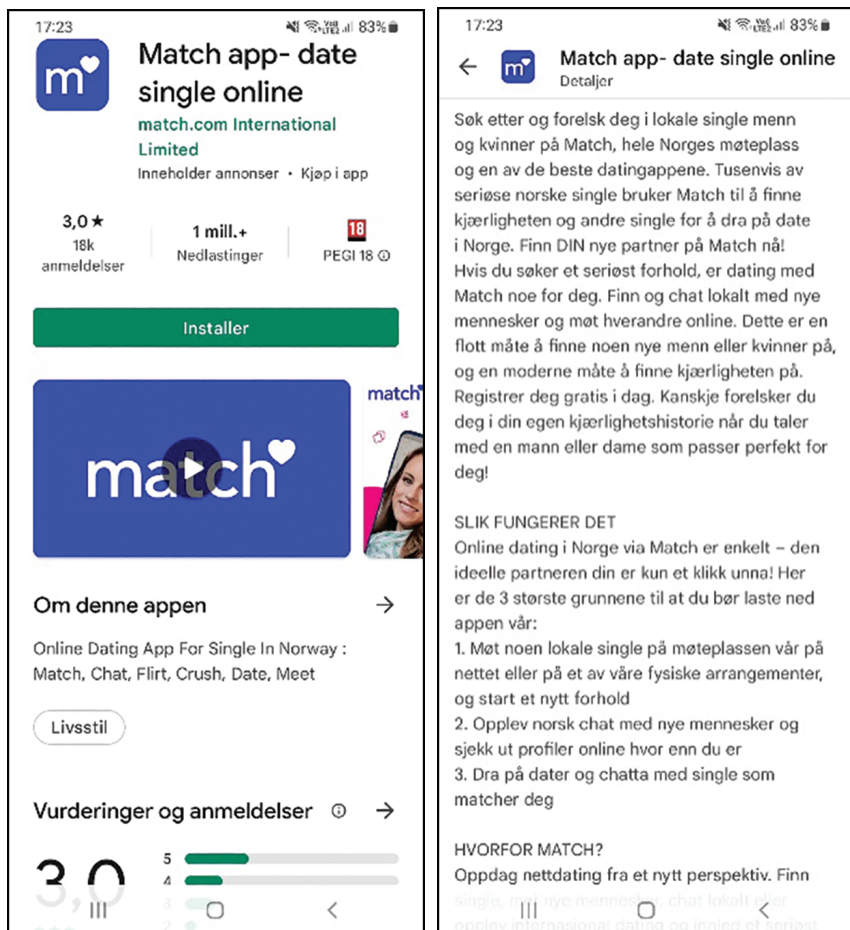
Figure 1 on the left More information about an app (in this case Match) is located behind the link to "About this app"/"Om denne appen".

Figure 2 to the right Screenshot of the text the user can read to get more information about the app.

Critical discourse analysis

In the study at hand, we analyse the texts provided from dating apps' "about the app", and discourses at play in these. More specifically, we employ a critical discourse analysis (CDA), which is a cross-discipline born in the early 1990s by a group of scholars such as van Leeuwen, Gunther Kress, van Dijk, and Fairclough (Wodak & Meyer, 2001). A discourse is an opaque power object in our society and CDA aims to make this more visible and transparent (Blommaert & Bulcaen, 2000). There is a range of approaches

to CDA; the three most prominent are Fairclough, Van Dijk, and Wodak (Amoussou & Allagbe, 2018). In the study at hand, we employ Fairclough's discourse analysis because of the tripartite model he offers. Here, a discourse is approached as: (A) a text (spoken or written, including visual images), (B) a discourse practice production, consumption and distribution of the text, and (C) a socio-cultural practice (Amoussou & Allagbe, 2018).

Following this tripartite model, Fairclough provides a three-dimensional framework for the analysis of text and discourse: (a) the linguistic description of the formal properties of the text; (b) the interpretation of the relationship between the discursive processes and the text; and (c) the explanation of the relationship between discourse and social and cultural reality. Texts, whether written, spoken, or represented by images, are the key materials out of which specific discourses – ways of representing the world – are constructed and can be understood (Fairclough, 2003, p. 2).

Texts provide us with insights into language, in the sense that "language is an irreducible part of social life, dialectically interconnected with other elements of social life, so that social analysis and research always has to take into account language" (Fairclough, 2003, p. 2). Language constructs and is constructed by social relations, events, structure, action, and agency (Waller, 2006). Social agents set up texts, and relations between elements of texts.

We will now present how we collected and analyzed the data.

Methodology

We used a qualitative approach in this study because we wanted an in-depth understanding of the discourses at hand (Yin, 2012). While pictures and other visual elements are used in "About this app", we chose to focus on texts as they convey the core discursive meaning of the material and because the material is large and space is limited.

Data collection and case sampling

We began our data collection process through extensive searches on Apple App Store and Google App Play using the search strings "dating" and "date" which gave many hits. Searches for "serious dating", "love", and "relationship" found many of the same apps and also apps not targeting dating specifically. To widen the search, we conducted a search on Google with the term "dating applications" and found articles and web pages promoting

the "best dating apps", some of which were added to our list. Due to the large number of dating apps, we decided to primarily include those with ratings, as this could indicate how much the applications are used. Our sample of 50 apps is listed in appendix 1.

In the next step, we coded each app thematically based on the app texts located within Google Play Store and Apple App Store. The main four categories were as follows: (1) "Serious dating" (50 apps), (2) "Network building" (23 apps), (3) "Casual" (8 apps), and (4) "Other" (6 apps) (N = 87 apps). Many of the applications could fit into several of the categories, but we placed them in the category where they seemed to fit best based on keywords from their texts. The category "serious dating" contains apps that predominantly promise 'lasting love' in their description.

Apps in the category "network building" contain applications that offer dating services but also network-building and the opportunity to find friends. In the category "casual" are applications that are more focused on flirting and casual meetups. The fourth category, "other", are applications that are more focused on kinks, fetishes, or affairs, yet still directed towards people that want to form a relationship.

We chose to direct our attention to the 50 applications in the "serious" category, primarily because we want to study applications that aim to reach out to individuals looking for long-lasting relationships, and not flings or one-night stands etc. After the case sampling, the analysis commenced with a close reading of the 50 apps' texts provided by the apps in the App Store's "About the app" section.

Data analysis of texts and discourses

The data analysis of the app texts was conducted in three phases. First, we analysed each app in-depth, mapping words and combinations of sentences. Second, through comparable reading, we identified patterns between the texts, identifying themes, analytic categories, and constructs used by the apps. Third, the two researchers compared and discussed the categorization. Having two pairs of analytical eyes on the data minimizes the risk of biased interpretations (Emerson et al., 2011; Gallenga, 2013).

The next step in our analysis was to analyze the thematic categories from the first analysis focusing on the main objective of the texts: stating what problems the apps will solve for the user. This was followed by

approaching the literature of prominent themes, for example the discourse of 'love.' Lastly, our analysis was theorized with the framework of strategizing communication. We will now present our findings.

Findings

As a starting point, in our first analysis of all the apps, we mapped words and combinations of sentences, looking for similarities and differences. We inductively identified three main themes that also relate to different levels. These are "love" (the user/individual), "critical mass" (the community), and "technology" (the technological system). Each of the themes consist of sub-themes or narratives (see table 1). These are:

Table 1 Three main themes were identified in our first analysis of the 50 dating apps. Each of the themes consist of sub-themes

Occurring theme	Sub-themes	Examples of texts	No of apps
Love: References to finding the user's perfect love and thus make the person happy, often for life.	Finding love	"love," "real love," "[find] love faster," "happiness," "a perfect partner".	34
	The One	"the [person] you have been dreaming of," "your better half," "someone really special"	
	You	"[you] deserve love," "fits you," "your perfect match," "someone you truly click with"	
	Romance	"Falling in love," "romantic relationship," "been dreaming of," "someone special that will give you butterflies once again!" "someone really special"	
	Life change	"send your life in new directions," "new chapter in life begins," "chapter full of romance," "settle down with," "change your life for ever," "share your life with"	
	Serendipity	"take another shot at love with our app," "biggest chance to find a relationship," "destiny"	
Critical mass: References to the pool of potential candidates available for the single user in the app	Past	"thousands (...) have already found love," "Hundreds of thousands of couples have met on [the dating site]," "we've made over 100 million matches and counting"	24
	Present	"20 000 new members every day," "our premium community offers more than 50 million quality singles, and more than 100 000 new singles join every day," "millions of people are still waiting"	
	Future	"the worlds' fastest growing [dating site] where 21 million single persons are looking for love," "the largest and fastest growing dating app"	

(*Continued*)

Table 1 (*Continued*)

Occurring theme	Sub-themes	Examples of texts	No of apps
Technology: References to the app's matching technology, which in turn will increase the chance of "finding the right partner"	Sorting process	"our unique matchmaking-technology we can help you find someone to share your life with (...) it works so well so you don't need to worry for not getting a match," "we have created the Compatibility Matching System to ensure each of your matches are based on qualities that are important to you," "An unique sorting of the best matches is one of the secrets [beyond our successful dating site]," "with our advanced search, unique matchmaking mechanism, and rigorous monitor process"	11
	Matchmaker-algorithms	"we have developed a special algorithm which brings together people who fit and are compatible to each other," "you'll be sure to find just what you're looking for with our intelligent matchmaking algorithms," "(...) our AI algorithms will do the rest for you (...)"	
	Technical affordances	"like the person you're interested in," "in the new single-feed you will see the latest from the singles you are looking for," "search for and fall in love with single men and women in [our site]"	

The most often occurring theme is "love" (34 apps). Here the apps construct "love" by using words and sentences that signal a romantic love life, where the user will "find love", more specifically "The One" for "You". This is typically presented in terms of "romance", as an existential "Life change" that will happen through a fortunate and random discovery. This theme is followed by sub-themes (24 apps) referring to a critical mass or pool of single candidates available in their app. Here the apps point to historical numbers of couples that have successfully established a relationship, the large number of single persons that are likely to be available in the app here and now, and how many new members are likely to be available shortly.

The last theme (11 apps) we found in our analysis concerns different technical functionalities and features the app claims to hold, that can assist the user with finding a potential partner. Here they refer to how the apps' sorting processes will sort out only persons in the large pool of candidates that "fit" the user. Next are references to how the apps use matchmaker algorithms or artificial intelligence to decide who, in the apps' large pool of available candidates, would fit the user the best. The final sub-theme in the theme of technology is technical affordances, which concerns sentences about technical features the apps state will increase the probability of establishing a relationship.

The next step in our analysis was to analyse the thematic categories from the first analysis focusing on the main objective and discourse of the texts. Here we find that one of the dilemmas these apps face is that there is an underlying tension and conflict between the discourses, but that the product relies on all three. Finding love and "the right one" is arguably harder and more time-consuming the more people you have available, which is also the main explanation for why people find dating more challenging than before (Romano, 2017).

Several studies have shown that offering a large pool of potential partners creates choice overload (D'Angelo & Toma, 2017; Sharabi & Timmermans, 2021), which makes users of digital platforms more pessimistic and likely to reject (Pronk & Denissen, 2020), and that a large pool of options triggers more searches, as well as decreases the perceived quality of the final partner selection (Wu & Chiou, 2009). This accords with research on social media where endless scrolling on the smartphone may lead to an experience of overload and an urge to disconnect (Ytre-Arne et al., 2020). Having a technological solution that counters such experiences is therefore key. One app that claims to have solved this dilemma is Once. They argue:

> Sick of endless swiping? Once is one of Europe's best dating apps, with over 10 million members. Hundreds of thousands of couples have met on Once, thanks to our simple recipe – there is no need to swipe. Every day you get a new match, specifically picked for you. You then have 24 hours of each other's undivided attention, enabling you to create a proper connection.

Once combines the three discourses, arguing that someone special, "specifically picked for you" will be available on the app soon. They don't reveal how the technology functions, but indicate that they have a secret recipe that almost magically picks the best candidates. Discursively, they turn the possible weakness of having a large member pool into their strength; their matching technology will overcome the problem. The technological weakness of swiping is addressed in other apps as well. The app Coffee Meets Bagel also markets its matching technology with the promise that "there's less swiping, and more matching, chatting, and *actual* dating".

From a market perspective, only the largest dating apps can lean confidently on numbers. The discourses concerning "love" and "technology"

are, not surprisingly, more prominent in the overall text corpus than references to the number of users or matches. These discourses are often combined in various constellations. The app Find My Love, for instance, states that if the user fills out a "specially designed questionnaire" the "AI algorithms will do the rest for you". JustKiss ups the game, promising that their "unique match-making technology" will provide the right matches. The app SweetRing offers a similar argument, with reference to their "unique matchmaking mechanism, and rigorous monitor process".

In a market where users often use several apps at the same time, appealing to "uniqueness" is a risky business. Market segmentation and identifying target groups are alternative approaches also found in our material. Several of the apps clearly communicate to specific segments, such as Muzmatch, which targets single Muslims, and EliteSingles, which focuses on people with higher education. Other apps focus on rare affordances such as Concha Date which provides the option of an "audio date" when people match. In sum, discourses about matching technology, promises of love, and large user pools form a recurring pattern, also in cases where special affordances and target groups are addressed.

We will now discuss our findings before we close with a call for future research.

Discussion and closing comments

To answer the two research questions addressed in this chapter, we conducted a systematic and critical discourse analysis of how 50 dating apps describe their services in two different app stores. We found three themes: love, critical mass, and technology.

What do dating technologies promise users?

The most dominant theme in the apps was found to be "love". Love was constructed as something single people need and even deserve in life, but must actively look for to find. This was often linked to the idea that there is one person "out there" that is the Right One for all of us. Finding the One is promised to change the users' life and, hence, monogamy is generally constructed as an underlying discourse – norm and practice – in dating apps. In addition, this discourse contains a Western, romantic, and emotional ideal typically mediated through films and media, rather than other

aspects of relationships, such as friendship, being a discussion partner, a supporter, and collaborator in everyday life, or someone to share your bills and laundry with.

The discourse of romantic love and "the one and only" accord with how these topics are represented throughout our society. The romantic discourse that is prevalent in our modern society is a narrative about finding the right one, experiencing great long-lasting love, monogamy, passion, and lifelong marriage (Øfsti, 2010). Employing key practices at play in this love discourse when communicating could illustrate that the reader or user is not a passive recipient of the app's narratives but takes an active part in the construction of the discourse of which s/he is part. Hence, the app company is communicating in ways that align with the taken-for-granted idea and construction of love.

What discourses are these promises based on?

The apps' text descriptions employ practices (behaviours, norms, and procedures) that dominate the societal discourse of love and relationships the users are part of. Yet instead of searching for this special person on his or her own (and thus risk not finding "love"), the dating apps promise to find this person on the users' behalf if only they become members of the dating site. Two discourses that underpin this promise are that the apps have a critical mass of members and technology needed to find love.

Concerning critical mass, which is the second theme, the apps point to temporality and time when they communicate; they refer to many successful establishments in the past. This is followed by pointing to a large sample of potential candidates present on the dating site. The apps will assist the user in finding a specific and special person, due to the apps' large pool of candidates, following an idea that in a huge sample of people, the chance of having the One person that fits the user in that pool, is larger than if the sample had been small. Yet, as shown in the analysis, the apps refer to the past (previously "successes"), the present (many potential candidates available here and now), but also the future (where plenty of more available candidates will shortly join the app), as evidence of their ability to help individuals in their search for love. Thus, if you do not find the One right away, the One is likely to be available and present in the app in the near future.

The third argument the apps use when promising to solve the users' problem of being single – which is the nerve in the love discourse – is the

apps' advanced technology. Through matching technologies, algorithms, and design affordances, the apps promise to increase the probability of the user finding the One in their large sample of potential candidates. While the matching technologies and algorithms are stated to help you find the right One for you, the technical design affordances enable you to look for and pay attention to several candidates on your own. These two discourses accord with a societal discourse of what modern technology is able to do: technology is presented as optimistic, almost magical. Technology often appears to be the solution to all sorts of challenges, including environmental and economic problems (Heikkurinen & Ruuska, 2021), but also, as in this case, the challenges of finding a partner.

Thus, the apps are communicating in line with the practices at play in a well-established discourse of love, denoting that one special person is out there for you and, that you need to look for that person in the apps' large pool of candidates that is likely to become even larger in the future. First, the apps nurture an established image of love by communicating what problems they are going to solve for the user, which accords with the discourse the users already are part of. Then the apps offer to help users reach this ideal by referring to the large sample of candidates present now or in the near future. Moreover, in order to find the needle in this haystack, the apps argue that their matchmaking technology and algorithms will find this needle – the One – for you. The sub-theme of one soul mate and a chosen one collides in many ways with the theme of a large sample of potential candidates. Having a large user base might contribute to the fear of missing out on a match (FOMA) phenomenon – that someone "better" than the candidate you have at hand might show up (D'Angelo & Toma, 2017; Gibbs et al., 2006).

How dating apps communicate an image of love points to institutionalized patterns of knowledge that become manifest in disciplinary structures and operate by the connection of knowledge and power. By using Fairclough's CDA-approach (2003), we were able to connect our analysis to the practices (behaviours, norms, and procedures) the dating apps use when they communicate strategically which problems they promise to solve for the users. And the practices at play in these structures are coloured by a discursive understanding of "love" and "technology" that is embedded in our Western society, which the apps employ when communicating.

In our literature review section, we found that "pools of potential partners", "romance", "love", and scientific claims were some key marketing

tactics utilized by dating sites in their advertising. Our study has dived in-depth into this topic and confirms what others have only observed on the surface. To conclude, dating apps promise users that they will find love and the right one (RQ1), basing their discourses on how they will fulfil this promise by pointing to a critical mass and advanced technology (RQ2). Meanwhile, you just need to wait – and pay a few dollars on Tinders' monthly in-app purchase to contribute to their revenue of nearly 65 million U.S. dollars (Statista, 2022).

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Appendix 1

The sample of 50 apps in the category "serious dating" that we have studied are the following:

Happn, Møteplassen, Match, Just Kiss, Sukker, Muzmatch, Hinge, MyDates, Luxy, EliteSingles, Inner circle, OkCupid, ICatched, Once, KristenDate Norge, Concha date, POF, Mamba, eHarmony, Coffee Meets Bagel, Dating.com, Be2, Skeiv, Not Dating App, Bluddle, OE Match, TrulyAsian, Pipper, Matcha, Mutual, FarmersD, NettDating, DilMil, Blurry, JSwipe, DateMyAge, SweetRing, ArabianDate, 123 Date Me, So Syncd, iFlirts, Dating & Chat, BLOOM, Find my love, Choice of love, Dating for seriøse forhold, Facebook Dating, Zoosk, Badoo, and Bumble.

Funding