

# Algorithmic Love: Autopsy of Online Dating Platforms Through the Theory of Psychological Distance

**Béatrice Durand-Mégret<sup>1</sup> and Valérie Rabassa<sup>2\*</sup>**

<sup>1</sup>Léonard de Vinci Business School, Paris la Défense, Research Center, France

<sup>2</sup>Léonard de Vinci Business School, Paris la Défense, France

**Submission:** May 28, 2022; **Published:** June 21, 2022

**\*Corresponding author:** Léonard de Vinci Business School, Paris la Défense, 12 Avenue Léonard de Vinci, 94 000 Courbevoie, France

## Abstract

Our article analyzes strategies of mobile online dating platforms through the theory of two-sided markets that connect romantic encounters on both side of the market via the algorithms. The purpose of our research is to understand how dating platforms combine algorithms and emotion and the role played by algorithms to analyze different information, attitudinal and behavioral data in order to create an effective and efficient matching in a networked and connected ecosystem. Our research mobilizes in particular the theory of the psychological distance to explore this setting calculated by the algorithms under the angle of its four dimensions: spatial, temporal, social and hypothetically. Our work examines in particular well-known dating platforms Tinder and Happn. Our analysis highlights two opposing strategies on quality and quantity depending on the types of criteria mobilized (informational, attitudinal or behavioral).

**Keywords:** Algorithms; Digital technologies; Network effects; Online dating platforms; Psychological proximity

## Introduction

Dating platforms are transforming social interactions, especially romantic encounters, in a significant way [1-5]. Recent studies show that romantic encounters are no longer made in an immediate near environment (friends, family, work) but rather online [4,6,7]. Most of online mobile dating platforms like Tinder, Happn, Bumble, OKCupid, Grindr, Badoo, etc., operate mainly through mobile devices such as smartphones. These platforms, through their smartphone apps, have increased unprecedentedly over the past five years. Thus, 1.6 billion matches happen every day on Tinder [Business of Apps 2019], [2]. The common goal for platform's owners and users is a successful matching and dating. The economic success of dating platforms is based on the successful matching and dating generating important scale and scope economies that create value [8]. According to Liberman & Trope [9], a successful dating is based on positive emotions felt by individuals through a psychological proximity. Algorithms mobilized by dating platforms allow the matching of potential romantic partners and promote then positive emotional reactions that daters have on each other. Algorithms are among the most

important technological drivers that enable firms to be more innovative and efficient. However, algorithms might lead to biased or unethical decisions [1,2,10]. Despite the popularity of online dating, little is known about how algorithms interact with attraction and emotions. Specifically, the design of the dating

technologies themselves (i.e., the algorithms' design) that may directly influence users' perceptions and therefore decision making, have capture little attention [3,5].

In order to fulfill this gap, the aim of our research is to understand how dating platforms combine algorithms, attraction and emotions as a strategy to promote a successful and efficient dating. To answer this question, we, first, define the theoretical framework of mobile online dating platforms that rely on indirect network externalities and data-driven network effects across the groups of daters that match through an intermediary digital interface [8,11,12]. Then, a qualitative netnographic study identifies the key role played by data and algorithms. This study presents the orchestration of emotions and algorithms through

the different features and criteria put in place by two popular platforms Tinder and Happn, ahead of matching. As suggested by Liberman & Trope [9], our research mobilizes the theory of psychological distance to explore the contact between two individuals calculated by algorithms from the perspective of four dimensions, spatial, temporal, social distance and hypotheticality. Different strategies, taking into account the network nature of dating platforms, developed by Tinder and Happn are discussed and proposed in conclusion. Conceptually, this research proposes a rare approach at the confluence of economics, management sciences and social psychology [Finkel et al. 2018], [4].

**Online mobile dating platform: A theoretical framework**

Dating online platforms are matching platforms. These platform businesses do not operate as traditional organization. Conceptually, these platforms are called two-sided markets and are characterized by synergies and network effects between both sides of the market [11-15]. To operate, matching platforms require a significant critical mass of users to optimize the number of matches which are essential to trigger network effects between the two sides of the market [14], avoid “chicken-and-egg” problems [16] and allow the economic viability and sustainability of their business model. The larger the number of users of each group, the greater the interaction between the two sides through indirect network effects or cross-side effects and the higher the likelihood of matches and the more new users connect to the platform through a positive *feedback* effect and so on [12,14].

Besides these traditional indirect network effects, online

matching platforms are also subject to data-driven network effects, which occur when the product or the service proposes more personalized or targeted matches as it incorporates information from the end-user (i.e., characteristics of user’s profile, needs and preferences, present and past choices, localization) through algorithms and data processing analytics tools [14].

Platforms thus connect providers and requesters of products or services that interact and allow their matching through algorithms [17]. Algorithmic matching on decision making might benefit users or consumers. Indeed, such forms of intermediation improve an efficient matching compare to purely decentralized matching due to coordination, information and search costs among users [8]. However, the existing literature on algorithmic matching on decision making has also pointed out some risks and harms [17,18] that might give rise specifically to anticompetitive issues such as concerted practices like price collusion or exclusionary conducts [19-21].

Compared to other online platforms (Amazon, Airb&b, etc) based on a transactional relationship (a product or a service in exchange of a financial transaction), online mobile dating platforms connect romantic users that are both searching attraction and emotions (Figure 1). In the context of a romantic encounter, putting online information based on its own characteristics and preferences, allows an individual to trigger attraction and emotions in another individual, but also aims to capture individuals who trigger an emotional and an attractive reaction for himself.

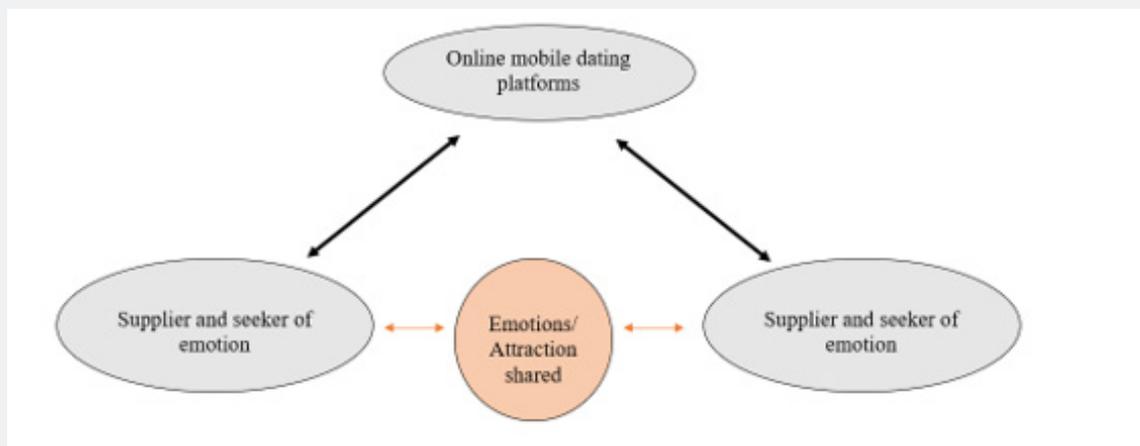


Figure 1: Online mobile dating platform.

**Autopsy of strategies put in place by online mobile platforms through the analysis of Tinder and Happn platforms**

Our research examines two popular online mobile dating platforms Happn and Tinder, which represent top downloaded leaders respectively with 6.44 million for Tinder and 867.5

thousand for Happn (January 2021<sup>2</sup>). These dating platforms are dominant in dating application markets in several countries, including the United Kingdom, the United States and France. Our research proposes to compare the strategies put in place by Happn and Tinder from the perspective of psychological distance across the four dimensions developed by Liberman & Trope [9].

These strategies are defined by the weight given to the different informational, attitudinal and behavioral criteria modeled by algorithms.

**Methodology**

This research used a qualitative netnographic study based on the functionality of these platforms before matching. It consists of studying the strategies of Tinder and Happn on different dimensions of psychological distance through a collection of information. It is participatory [22] because of collected elements followed by an inscription, by an active and daily attendance of each of the two applications during several months (screenshots). It is also based on documents such as interviews, press releases and terms and conditions of use. This method of analyzing textual data is increasingly developing in management sciences [Lorino 2015, p. 155, Moascarola et al. 2002]. It is thus perfectly adapted to the creative consumer who co-creates value by interacting with potential partners in the contact space and then in the interaction space [23,24].

**Results: A treatment of two-speed psychological proximity**

In our research, online mobile dating platforms facilitate the encounter of romantic users through two distinct spaces: the contact space and the space for interaction. The contact space allows an individual to visualize potential partners that can be *liked or swiped* in the hope that the other will do the same<sup>3</sup>. In this case, the matches make the interaction space accessible to both individuals. These two spaces give free rein to positive or negative emotional reactions. The sesame (the match) is particularly based on the emotions felt by the different users, but it is however made possible only by algorithms, giving rise to a form of *“algorithmic love”*. Algorithms rely on data that perform the connection of individuals to each other in a relevant way and also attempts to limit negative network effects detrimental to the economic viability and sustainability of the platform<sup>4</sup> [14]. Our study analyzes particularly the contact space. It shows that dating platforms like Tinder and Happn orchestrate emotion between individuals in different ways. (Figure 2 in Appendix).

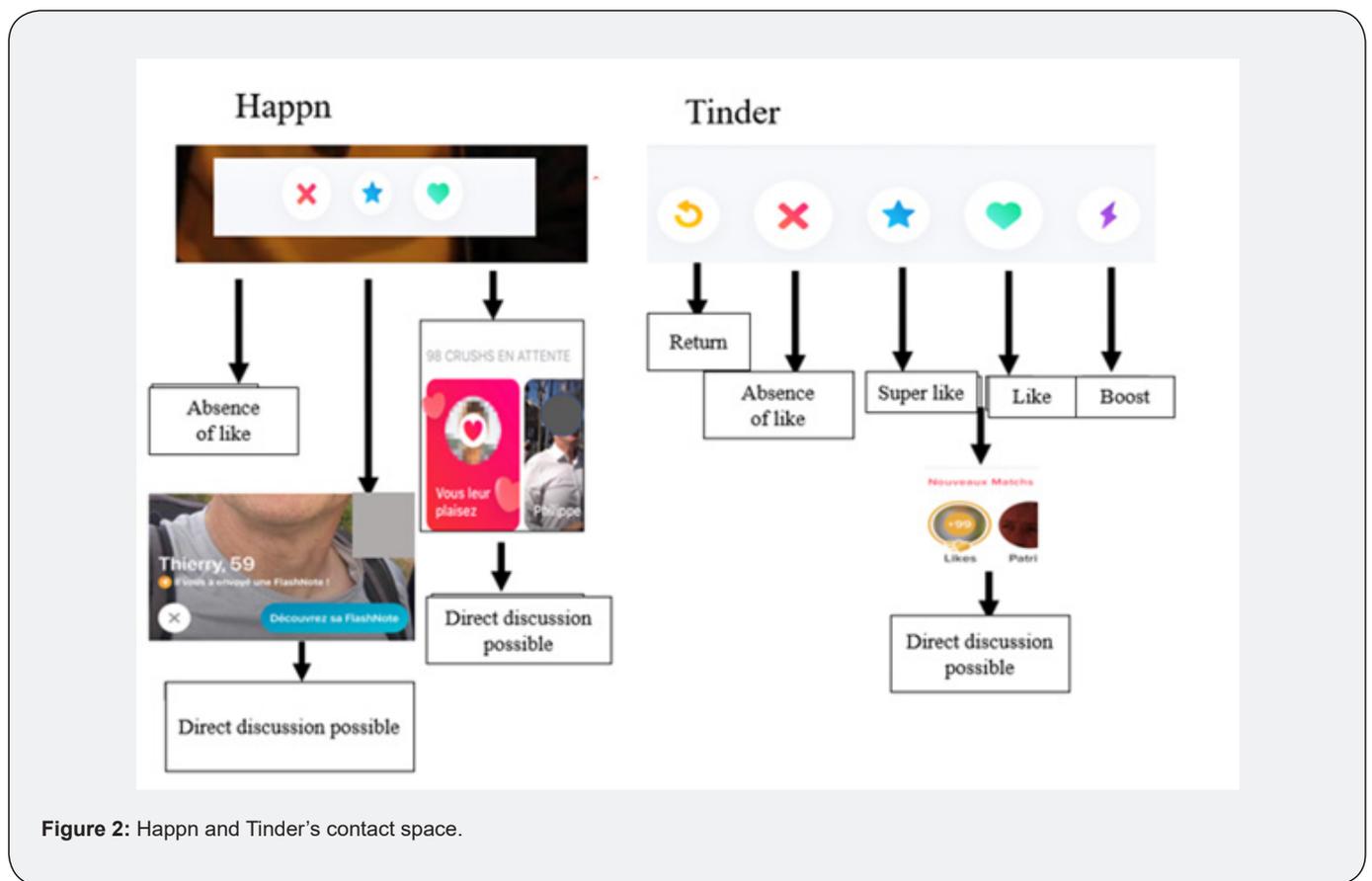


Figure 2: Happn and Tinder's contact space.

<sup>1</sup><https://www.businessofapps.com/data/tinder-statistics/>

<sup>2</sup><https://financesonline.com/online-dating-statistics/>

First, in order to fulfill their economic viability, Tinder and Happn, as traditional matching platforms, have developed strategies based on indirect network effects. In order to do that, both platforms have given to the dater the opportunity to facilitate the matching, therefore their satisfaction via some tools in the contact space. Indeed, if the cross and the heart to choose or reject the proposal made by the algorithms are the same, Happn offers an “Hello” allowing the other individual to get in direct contact with the one who issued it, plus a “flash note” allowing the sending of a short message, while Tinder offers a “super like” that is only an indication of a higher interest level. Tinder, on the other hand, offers the “booster” that allows an individual to be visible to more users during 30 minutes. This “facilitation” of contact is more or less controlled by the user. Tinder offers to trigger the pairing with a pre-established sign delegating thus the matching, while Happn, via the “flash note”, entrusts the user with the power, to write a personalized text.

Second, more than others platforms, the success of online dating platforms is based on an effective matching where data are central input and play a key role [8,25]. By an ultra-personalization of profiles, the presentation of two daters is more relevant although very little is orchestrated by the user himself. Then, data facilitate connections between the two sides of the market and enable the creation of value [12,14] via data-driven network effects. Dating platforms algorithms analyze data to propose an optimal choice of compatibility between different romantic partners. This study find out three different types of data: informational, attitudinal and behavioral data. Informational data are informations based on the characteristics of each user’s profile: photo, age, gender, geographic location, user’s preferences or interests as well as the profile of the person the user is looking for. Attitudinal data help to know the needs and wants of a dater for example through the analysis of his attitudes on related platforms such as Instagram or Spotify whose access is freely delivered by the user in his profile. Behavioral data are data based on each user’s behaviors, for example, the time spent on a profile or the type of *liked* profile. Informational data that are often succinct when users open their profiles, is processed by traditional algorithms. Algorithms based only on informational data might, however, lead to biased or

unethical decisions. For example, algorithms could be based on concepts considered stereotypes of modern love life, i.e. an older man with a younger woman with lower incomes and degrees, etc. [1,2,10]. In addition to these traditional algorithms machine learning algorithms analyze the attitudes and the behaviors of an user to redefine new proposals for potential partners<sup>5</sup>. Algorithms exploit the similarities between the users to optimize the pairing between them [26]. The adage “*people alike get together*” would then be true in online dating [27]. It therefore appears necessary to understand how algorithms are based on these characteristics and/or preferences to promote matching between individuals in a relevant way. The theory of psychological distance makes it possible to identify how these algorithms promote the necessary emotions for a romantic encounter from the angle of four dimensions: spatial, temporal, social and hypothetical proximities which positively influence judgment towards the other dater [Chae et al. 2013].

By examining algorithms from the point of view of the psychological distance, four dimensions developed by Liberman & Trope [9] are mobilized by mobile online dating platforms. First of all, algorithms might facilitate the dating of two partners who share a certain spatial proximity through an instantaneous geolocation. The spatial proximity, by developing emotion, influences positively judgment towards the others [Chae et al. 2013]. The immediacy made possible by mobile devices, allows to trigger a like and then a conversation, at any time and in any place, favoring temporal proximity. The information provided allows algorithms to identify a certain social closeness between two users through similarities of interest, preferences, resemblance or common points. Algorithms might also reduce the hypothetical distance (probability that the action being performed) by facilitating the dating between two individuals identified as compatible, thus reducing the risk of no reciprocal like, and therefore the matching. These results can be found in particular in Bergstrom [1], Burtch & Ramaprasad [28], Chae et al. [2013], Hoon Jhang and Lynch [2015], and in Liberman & Trope [9] for whom the distances are blurring in the age of the Internet and online dating. Algorithms can also transcend the present by magnifying the attractiveness to the detriment of a more distant or risky feasibility.

<sup>3</sup>By definition, a swipe on theTinder dating platform can be defined as a boost on the right or left. It determines whether an individual «like» or not the profile of another participant presented by its application. If two users make a swipe right on their respective profiles, the match and the conversation between the two users can start.

<sup>4</sup>For example, a significant increase in men on a heterosexual dating site can lead to an increased level of competition between men and then might generate negative network effects. Too many men compared to the number of women might create both the attrition of men and women. Men with a limited choice of women corresponding to them are tempted to like women of a higher level of attractiveness. These women, disappointed by the men they attract, might therefore not respond to their request and end up leaving the application, creating de facto dissatisfaction with these men. Men of the same level of attractiveness also leave the application as they might face limited choice of women who have the same characteristics. This vicious cycle can continue and might in fine destroy the viability of the platform [Parker et al 2016, p27]. Dating sites might also limit unwelcome requests and unwanted communications, with however the risk that « users with the most attractive profiles might not reuse the service » [Duportail 2019].

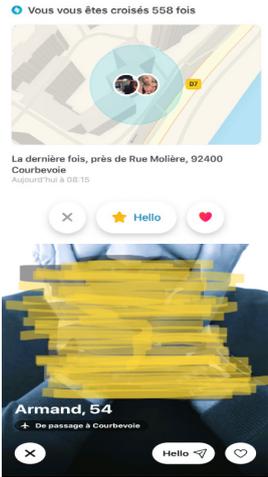
<sup>5</sup>The machine learning process is an algorithmic process that define the choices proposed to users by algorithms through the analysis of its own data and a possible revision of its parameters [Gal and Elkin-Koren 2017].

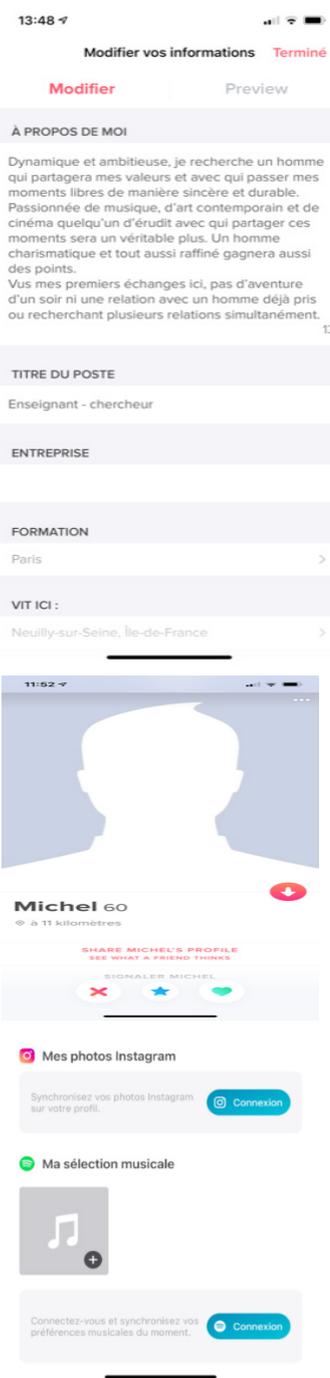
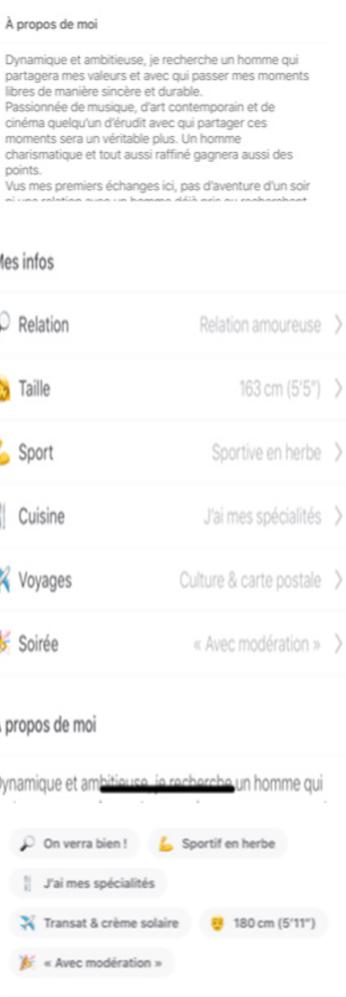
<sup>6</sup><https://blog.gotinder.com/powering-tinder-r-the-method-behind-our-matching/>

In terms of informational data, especially Happn strongly mobilizes psychological proximity via the spatial proximity criterion behind its slogan “Find who you meet» allied to other temporal, hypothetical and social proximity (See Table 1 in Appendix). This instantaneous geolocation promotes both temporal proximity (the immediate opportunity to meet in the real world the person reported on his mobile phone) as social proximity. The number of times individuals have crossed paths allows them to identify social proximity through frequented areas. This social proximity is reinforced by the incentive to specify its profile on Happn, which is not the case with Tinder where information is rarely given. The user of Happn, by easily feeding its information profile can promote hypothetical proximity. Indeed,

the attitudinal and behavioral criteria, analyzed in Table 2 (see Appendix), are more strongly mobilized by Tinder than by Happn. Tinder [2019] confirms the exploitation of user behavior by stating that: “You will be very surprised. The most important factor that can help you improve your potential matches on Tinder’ is... to use the app [...] Tinder presents matches to you, based on your recent activities, preferences and location.” These behavioral criteria are measured by the attractiveness that a profile generates to other important users [Parker et al. 2016, p27] in terms of matching and complement the attitudinal criteria through news “likes”, shares, comments, etc., on Facebook, Instagram or other Spotify made accessible by the operator to the user. Those attitudinal and behavioral criteria generate only social proximity.

Table 1 : Mobilization of informational criteria for psychological proximity by Tinder and Happn.

Informational data	Tinder		Happn	
<b>Spatial proximity</b>	Little mobilized. Spatial proximity is placed in the middle of other information (Malay, 60) although considered an essential criterion for some users (Daniel, 57).		Spatial proximity is the basic premise. Spatial proximity may also appear as an indicator of social and temporal proximity.	
<b>Time proximity</b>	Little mobilized. The notion of time does not appear on Tinder in the information that accompanies the proposed profile.		Favoured by geolocation making the person appeared instantly, the time between the real and the virtual world is blurring.	

<p><b>Social proximity</b></p>	<p>Social proximity is established through basic informational data: age, gender, etc. Tinder also offers a free space for expression on information in terms of profession or company in which the user is employed, the place of training and the place of residence. However, many profiles are reduced to their simplest expression with only the photo, or even an indication of the age or geolocation. Sometimes no information is given. Tinder also mobilizes attitudinal data for instance through same tastes via Instagram or Spotify sharing.</p>		<p>Highly mobilized through different basic informational data and through geolocalization (spatial proximity): age, gender, etc. Happn also offers information to identify similarities of interest, preference or resemblance through common points such as school attended or the profession exercised, the sports practiced, etc. If this information is not mandatory, users are recently strongly encouraged to respond via questions with predefined keywords among several criteria. Love: <i>“romantic relationship, nothing very serious, or we’ll see!”</i>; Sport: <i>«aspiring sportsman, decent cardio or addicted to sport»</i>; Cuisine: <i>«Microwave master, delivery champion, I have my specialties or call me chef.»</i> Travel: <i>«hike and backpack, deckchair and sunscreen or culture and postcard»</i>; Evening: <i>“in bed before midnight, in moderation or night owl”</i>.</p>	
--------------------------------	--	--	--	--

<p><b>Hypothetical proximity:</b></p>	<p>Not mobilized.</p>		<p>The hypothetical distance seems clearly mobilized through the user's visiting of the application. The indication that a person has recently been on a platform allows to know to what extent he is active in his search. The hypothesis of having an upcoming answer on his part in case of shared attraction is therefore favored, thus reducing the hypothetical distance.</p>	
---------------------------------------	-----------------------	--	---	---

**Table 2 :** Mobilization of attitudinal and behavioral criteria for psychological proximity and attractiveness by Tinder and Happn.

Attitudinal criteria	Tinder		Happn
<p><b>Psychological proximity through social proximity</b></p>	<p>Mobilized. These mobilized attitudinal criteria allow for a certain social closeness through the analysis of similarities of interest, preference or resemblance. For example, through an Artificial Intelligence created by Amazon «<i>Rekognition</i>» that allow to analyze and categorize pictures.</p>	<p>For example, through the analysis and the categorization of photo of mountain hikes (Christophe, 41).</p>	<p>Little mobilized..</p>
<p><b>Behavioral criteria</b></p>	<p><b>Tinder</b></p>		<p><b>Happn</b></p>

Whatever the type of data, our results show that this delegation of matching to algorithms might generate benefits by allowing the user to be in contact with individuals as close as possible to his research [26,27,29]. It therefore leaves little room for user proaction in his search for a soul mate.

In this context, the mobilization of the theory of psychological distance that might generate positive emotions might avoid potential biased or unethical decision making [1,2,10]. It is therefore necessary to understand how data are processed and orchestrated by algorithms and what strategies emerge from this [30-34].

## Discussion and Conclusion

Our research analyzes two-sided markets through mobile dating platforms that allow users to connect through algorithms which create effective matches. This theoretical framework is poorly mobilized in psychology and management sciences. Our work confirms the key role played by algorithms in analyzing different informational, attitudinal and behavioral data through the theory of psychological distance. Furthermore, our results reveal that Tinder and Happn focus on different strategies on the informational, attitudinal and behavioral characteristics available to create an effective and efficient matching.

First, both dating platforms mobilize indirect network effects but Happn is more pro-active in its delegation of power to users. While Tinder users completely delegate the facilitation of contact by boosting their visibility without knowing which individual will be seduced.

Regarding the data network effect allowing the ultra-personalization of matching by algorithms, here again, Tinder and Happn do not use the same strategy. The mobilization of the theory of psychological distance makes it possible to identify the differences. Happn favors informational data and in particular geolocation. Spatial proximity is clearly more strongly mobilized by Happn than by Tinder. However, this spatial proximity is reinforced by temporal, social and hypothetical proximity that allows a better rate of "love efficiency". Then, Happn, by operating mainly on data-driven network effects, creates a strong psychological proximity and therefore increases interactions and attraction between the two sides of the market.

It is true that Happn deprives itself of a large number of potential interlocutors by reducing it by geolocation, but ensures the quality of the contact, in terms of potential success thanks to spatial proximity. Tinder, on the contrary, gives everyone free rein to love someone several thousand kilometers away. Indeed, in terms of the data network effect, Tinder favors the attitudinal and behavioral characteristics available to create an effective and efficient pairing. Tinder bases its strategy on quantity, due to a larger user base with less restriction on spatial proximity criteria. Then, Tinder thus creates a significant attraction thanks to its larger user base as well as a stronger mobilization of behavioral criteria. Additionally, little information is needed or provided by Tinder users. This implies a strong delegation of their quests to the algorithms. Tinder thus compensates for this lack of informational criteria on the profile, characteristics and preferences of the user, by a strong mobilization of the algorithmic analysis of behavioral and attitudinal data. Happn favors thus the quality to increase user satisfaction and therefore trigger the indirect network effect, while Tinder bases its strategy on quantity, at the risk of limiting the likelihood of meetings.

From a theoretical point of view, our research expands previous research on two-sided platforms to emotional dimension. From a managerial point of view, our study shows how emotion is an

essential factor in decision-making that could be orchestrated by dating platforms. In particular, our research shows how platforms make arbitrage between quality and quantity. However, our work might show some limitations such as potential difference of behaviors between men and women and trust versus privacy issues.

## References

1. Bergström M (2019) Les nouvelles lois de l'amour: Sexualité, couples et rencontres au temps du numérique. Editions La Découverte.
2. Duportail J (2019) L'amour sous algorithmes. Editions Goutte d'Or.
3. Gal-Or E (2020) Market segmentation on dating platforms. *International Journal of Industrial Organization* 68: 102558.
4. Silva RR, Koch M, Rickers K, Kreuzer G, Topolinski S (2019) The Tinder stamp: Perceived trustworthiness of online daters and its persistence in neutral contexts. *Computers in Human Behavior* 94: 45-55.
5. Tong ST, Hancock JT, Slatcher RB (2016) Online dating system design and relational decision making: Choice, algorithms, and control. *Personal Relationships* 23(4): 645-662.
6. Rosenfeld MJ, Thomas R, Hausen S (2019) Disintermediating your friends: How online dating in the United States displaces other ways of meeting. *PNAS* 116(36): 17753-17758.
7. Smith A, Anderson M (2016) Fivefacts about online dating. Fact Tank.
8. Ducci F (2020) Natural monopolies in digital platform markets. Cambridge University Press, United Kingdom.
9. Liberman N, Trope Y (2008) The psychology of transcending the here and now. *Science* 322(5905): 1201-1205.
10. Pidoux J (2019) Toi et moi, une distance calculée : Les pratiques de quantification algorithmiques sur Tinder, dans Yann Calbérac, Olivier Lazzarotti, Jacques Lévy et Michel Lussault, Carte d'identités. L'espace au singulier, Paris, Hermann, UK.
11. Belleflamme P, M Peitz (2021) The Economics of platforms. Cambridge University Press, United Kingdom.
12. Tirole J (2017) *Economie du bien commun*. PUF.
13. Evans D, Schmalensee R (2016) Matchmakers: the new economics of multisided platforms. Cambridge: Harvard Business School Press, USA.
14. Parker G, Van Alstyne MW, Choudary SP (2016) *Platform Revolution*. New York, Norton, USA.
15. Rysman M (2009) The Economics of two-sided markets. *Journal of Economics Perspective* 23(3): 125-143.
16. Caillaud B, Jullien B (2003) Chicken & egg: competition among intermediation service providers. *RAND Journal of Economics* 34(2): 309-328.
17. Gal MS, Elkin-Koren N (2017) Algorithmic Consumers. *Harvard Journal of Law and Technology*, p. 30.
18. OECD (2017) Algorithms and collusion: Competition policy in the digital age, Paris, UK.
19. Autorité de la Concurrence and Bundeskartellamt (2019) Algorithms and collusion.
20. Crémer J, de Montjoye YA, Schweitzer H (2019) Competition policy for the digital era, European Commission Report, Brussels.
21. Competition & Market Authority (2021) Algorithms: How they can reduce competition and harm consumers, United-Kingdom Government Report, London, UK.

22. Cova V, Mani Z (2014) La question de la durabilité de la récup' à travers le prisme d'Internet ? Recherche et Applications en Marketing 24(3): 81-100.
23. Prahalad CK, Ramaswamy V (2004a) The future of competition: Co-creating unique value with customers. Harvard Business Review Press, USA.
24. Prahalad CK, Ramaswamy V (2004b) Co-creation experiences: the next practice in value creation. Journal of Interactive Marketing 18(3): 5-14.
25. Hagi A, Wright J (2020) When data creates competitive advantage. Harvard Business Review, pp. 94-101.
26. Finkel EJ, Eastwick PW, Karney BR, Reis HAT, Sprecher S (2012) Online dating: A critical analysis from the perspective of psychological science. Psychological Science in Public Interest 13(1): 3-66.
27. Amadiou JF (2016) La société du paraître. Odile Jacob.
28. Burtch G, Ramaprasad J (2016) Assessing and quantifying network effects in an online dating market. NET Institute: 16-05.
29. Kosinski M (2015) Computer-based personality judgments are more accurate than those made by humans. PNAS 112(4): 1036-1040.
30. Bucher T (2016) Neither black nor box: Ways of knowing algorithms. Innovative Methods in Media and Communication Research, pp. 81-98.
31. Cormen TH, Leiserson CE, Rivest RL (2009) Introduction to Algorithms. 3e Editions MIT Press, USA.
32. Don Schull N (2014) Addiction by design. Princeton University Press, United States.
33. Evans D (2013) Attention rivalry among online platforms. Journal of Competition Law & Economics 9(2): 313-315.
34. O'Neil C (2018) Algorithmes, la bombe à retardement. Editions Les Arènes.



This work is licensed under Creative Commons Attribution 4.0 License  
DOI: [10.19080/PBSIJ.2022.19.556002](https://doi.org/10.19080/PBSIJ.2022.19.556002)

### Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats  
**( Pdf, E-pub, Full Text, Audio)**
- Unceasing customer service

**Track the below URL for one-step submission**

<https://juniperpublishers.com/online-submission.php>