

The influence of AI on love: the role of dating sites

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Summary :

The aim of this paper is to better understand the impact of digital tools on romantic relationships in the age of AI and thus on the perception of love by individuals as well as on the process of romantic relationships.

Through the literature, we define individuals' perception of love and the process of romantic relationships, before observing user behaviour on dating platforms. Based on this literature review, we define the research questions related to the behaviour of prospects on digital platforms and the impact of these platforms on behaviour.

We briefly present a qualitative study to support the previous theoretical analyses to assess the evolution of the conception of love of people who use digital platforms on their dating behaviours, which shows in particular that the concept of commitment is weakened.

Keywords: conception of love, digital tools, commitment

In this communication, love, that strong feeling of affection and attachment, often leads the one who experiences it to adopt a particular behaviour and to end up in a loving relationship, if this love is shared. As such, love acts as a major factor in social relationships.

This is why love is as much about social norms and values as it is about people's feelings. Immersed in a hyper-connected space, our social interactions, including our romantic relationships, are stimulated and challenged by the evolution of social networks and digital platforms that push us to meet a multitude of people who are all potentially "our soulmate 2.0".

Thus, in order to search for and find a soul mate, our individualistic society pushes human beings to make a series of consumer choices in which the aim is to find the perfect profile of the person who corresponds to our expectations. This approach to romantic partnership is likely to challenge the model of romantic love that prevailed as a reference model for romantic relationships and when it relies on online dating, which is the practice of using dating websites to find a partner, it changes the traditional offline dating process that led to romantic encounter. In this way, we take into account the influence of the dating process on its intended purpose, the romantic relationship. Chance has less of a place in online dating than in the face-to-face encounters that occur in the course of potential partners' lives, whether these encounters are partly chance or not (Finkel, 2012). With online dating, the original face-to-face encounter and serendipity fade away.

This paper therefore focuses on the effects of digital technology on the transformation of the love relationship process and, ultimately, on the perception of love that it engenders. In the first part, entitled "Modern love in the face of dating sites", we analyse the evolution of the couple (1.1), before introducing the role of exchanges on dating platforms (1.2).

In a second part, we present and briefly analyse the results of our exploratory survey (2.).

1 Modern love in the face of dating sites

Love is a polymorphic concept, since it can take several forms such as human love, divine love, paternal love, or maternal love, with behaviours that differ according to the object of love. The history of each individual is that of the construction of his or her model of love and the behaviour associated with it.

At birth, the child has a repertoire of behaviours, known as attachment behaviours, which are intended to call upon or maintain the parent close to him. Initially, he expresses them spontaneously, then, depending on the responses given by the adult, he modulates them and develops behavioural strategies that seem effective in obtaining the closeness he seeks. A child thus builds himself by following a model relating to his own needs, itself linked to the model of his relations with his entourage. In relation to these two models, he or she forms expectations regarding the course of his or her relationships.

Our first perception of love therefore depends on the one we were taught by our parents from a very young age, depending on how they behaved with us and with each other (Miljkovitch & Cohen, 2007). These behaviours define our first conception of love, which will evolve according to our successive experiences. These experiences generally lead to the formation of a couple, which, unlike the parent-child relationship which is always imposed, can be voluntary (Goffman 2002).

1.1. The evolution of the couple

Unlike the period when the couple was instituted within a marital contract that linked conjugality, filiation and parenthood in an endless life together, today's couple in the Western world is held together only by the feeling that unites its members. (Neyrand, 2015). Furthermore, according to Neyrand (2004) society has moved from the model of the symbiotic couple, with the woman staying at home, to the model of the 'duo' couple, which preserves the autonomy of the two partners, each of whom has their own activities that are not necessarily complementary.

This change in the model of the couple, which began in the 1970s, with the rise of values around personal freedom and self-realisation, as well as equality of roles within the family, is imposed on interactions between men and women.

Today, the primary function of a couple, before considering procreation, is to contribute to the fulfilment of both partners (Neyrand, 2015). The couple becomes a space for interactions geared towards affective, sexual and social gratification, with a view to reciprocal self-realisation through the other.

1.2. Exchanges on dating platforms

The role of the internet fits into the above social context. Social networks and online dating applications are designed to facilitate exchanges and encounters, but it should be noted that they apply equally to couples seeking to form themselves and to couples already in place. Since electronic communication allows people to exchange throughout the day with their partner, even if they are located on the other side of the world, it allows everyone to free themselves from any social constraints, allowing couples to become desynchronised (Le Douarin, 2002; Demonceaux, 2014) as shown by the example of a couple using smartphones in bed with the help of headphones (Salmela, Colley, & Häkkinen, 2019).

More fundamentally, the development of dating sites directly challenges the notion of love. Even if they are not the majority of couples' first encounters and if their importance varies with social class and country, the use of dating sites results in a change in human behaviour towards the couple and thus contributes to modifying the conception of love (The Economist, 2018). They also change the probability of encounters between people of different social classes, occupations or locations (Duteille, 2002).

Even if the majority of encounters still take place off the Internet (Bergström, 2021) Although the majority of dating still takes place off the internet (Bergström, 2021), the relative importance of platforms has increased, due to the increasing ease of access to the internet through mobile phones and the business methods of digital matchmaking services.

In this regard, it should be noted that users can create their own online profiles, in which they describe themselves and the characteristics they are looking for in their desired partner, they upload a set of photos to their profiles while searching for other users' profiles using a search engine that allows them to filter by age, location, religion and other variables. In addition, applications installed on smartphones can use location data to tailor their recommendations to the context (Marquet, 2009).

The dating framework determined by online sites modifies the relational behaviour of individuals. When meeting at work, at university or at a party with friends, for example, the protagonists are careful not to reveal their desires and feelings too quickly, making the approach more gradual, as it is a question of ensuring that expectations are reciprocal. Online, because the stakes of the encounters are explicit, the seduction time is shortened and the transition to sexuality accelerated. This acceleration also seems to characterise the subsequent stages of the relationship: a study from the United States indicates that couples formed online marry more quickly than other couples (Rosenfeld, 2017).

If virtual dating makes it possible to speed up the process of getting together, its modalities modify the parameters that constitute the basis of dating, so that getting closer to someone to have sexual interactions is no longer taboo, a step that would probably have been more difficult to take before the organisation of virtual dating.

1.3. The online dating market

The number of people using these sites is steadily increasing with 370 million active users worldwide by the end of 2021, according to Statista Digital Market Outlook (2021), while the range of choices offered is also growing. In France, it would seem, according to a series of surveys, that nearly 25% of people find a partner through a dating site. It is not therefore an anecdotal process. The collection of data by these sites makes it possible to highlight common points of interest, such as the type of sexuality, the relationship sought, the number of people involved. The latter can then focus on more specialised themes such as the users' religion or even their eating habits.

In all cases, dating sites put forward the perspective of the complementarity of partners by relying on a "rigid conception of the feeling of love" (Camille, 2016)(Camille, 2016), due to the sites' aim of bringing together people who share commonalities.

It is therefore a market (Marquet, 2009) on which the users of these platforms seek to sell themselves as a product and to buy.

This approach to the other, to the couple and to love has effects on people's behaviour during and after the exchange on the market. The risk of falsification of expectations generated by the competition between the different members of these platforms must be emphasised. Also, once the exchange is established, it is likely that partners will consume their relationship in a different way than those who met in the traditional way.

As user interactions on these dating sites are linked to the competition that prevails (Hertlein and Webster, 2008, Marquet, 2009,) Demonceaux, 2014), dating sites allow a user to practice a 'multi-partnership' (Marquet, 2009), thanks to the privacy that the sites provide, thus undermining one of the recurrent concepts of the romantic relationship, namely monogamy (Richter, 2014).

Moreover, online dating can give the feeling to the actors of the sites that they are interchangeable, a feeling reinforced by the brevity of the interactions which discredits their commitment. This commodification of love therefore clashes with the ideals surrounding love and its passionate components (Guéret, 2020), in particular the exclusivity of the love relationship with a partner. Factors in favour of partner rotation are also integrated into the communication of the sites (Bergström, 2019), Tinder (2017), since the multiplication of partners is justified to the players by

the need to make the right choice and is facilitated by the great discretion of the online dating concept (Marquet, 2009; Bergström, 2019), which allows a high degree of autonomy in the way the user's private, sentimental and sexual life is perceived, in contrast to conventional encounters such as a party organised by friends, a meeting in a bar or at work, which are subject to the gaze of others present in these various environments.

The question then arises of comparing the nature of the couples created through dating sites with couples who met in a conventional way. To simplify, the former can be linked to a short-term conception of the couple based on the satisfaction of immediate pleasure, while the latter are linked to a more traditional and long-term conception of love based on stability and on traditions anchored generally through parents and societal norms (Camille Pagotto, 2016).

However, we cannot attribute the tendency of users to be satisfied with ephemeral relationships exclusively determined by this proliferation of choice, because we can also argue that dating sites are only the consequence of an expectation that can finally be expressed. In other words, are online dating sites adapting to social change or, conversely, are they instigating it? In this paper, we do not seek to decide this point, focusing on the question of their influence on dating.

2 The influence of dating sites on the relationship

This influence can only be multidimensional, given the number of variables involved. In order to try to grasp the contours of this influence, we have used a theory of love (2.1) which served as a reading grid for the interviews we conducted concerning the role of dating sites on romantic relationships (2.2)

2.1 An outline of a 'theory' of love

The nature of love is "considered a universal experience strongly associated with sexual arousal and capable of having a strong effect on emotional, cognitive and behavioural dimensions." (Feybesse, 2015). In this regard, Sternberg (1986) proposes to distinguish three components in love: intimacy, passion and commitment:

- "Intimacy encompasses the feelings of closeness, connection and bonding that are experienced in romantic relationships" (Sternberg, 1986). (Sternberg, 1986). The degree of intimacy depends on the degree to which we share our emotions, our inhibitions, our motivations, our secrets and our attitudes.
- Passion is primarily about the attraction between two individuals, it includes sexual consumption but also romance. (Sternberg, 1986). For example, the excitement of being reunited with one's partner is passion.

- Finally, the decision or commitment encompasses two decisions over two different time periods:
 - In the short term, the decision to love the other.
 - In the long term, the commitment to maintain this love.

In an attempt to understand why some romantic relationships tend to end more quickly than others, Sternberg (1986) identifies time as a moderating variable, postulating that time leads to fundamental changes in the nature of the romantic relationship, with all three dimensions of the relationship, intimacy, passion and level of commitment, being related to the duration of the relationship.

2.2 The effects of digital platforms on the dimensions of the relationship

Assuming that commitment, the third dimension of the relationship directly related to time, leads to a marital purpose in the traditional definition of love, several structural changes converge to affect this purpose. (Bankov, 2019):

- In an individualistic view of society, the first change comes from the development of romanticism associated with the notion of love which implies the free choice of a partner.
- The consequence of this individualistic vision is the extension of sexual freedom in the last decades.
- The digital age brings tools to implement the first two structural changes, as well as its specific characteristics.

3 The experiential field of the relationship in the presence of dating platforms:

Based on our problematic concerning the influence of the digital age on the perception of the model of love, we conducted a qualitative study with 10 people, men and women, concerned with our problematic of love in the digital age which is being re-examined and extended.

This preliminary study, involving only 10 people, enabled us to obtain initial answers concerning the effects of dating sites on relationship stability, on the level of passionate excitement and on commitment. The answers obtained do not seem sufficiently relevant to us to use them in this paper, but they do show, in a first approach, that the respondents are divided as to the effects of social media on the stability of their intimate relationships, that they have had a barely negative effect on the level of passion, while the level of commitment would be clearly reduced. Thus, according to the responses to this exploratory survey, with the use of social media, passionate excitement remained stable over the duration of their relationship. Digital technology would therefore not have a great impact on passion. The emergence of various technological means of

communication today has facilitated new kinds of passion, such as long-distance relationships or virtual love stories, but does not tend to make passion disappear or to make it more intense. Finally, the use of networks and other platforms seems to decrease the commitment of couples, at least for a minority of them.

CONCLUSION

We therefore conducted a qualitative exploratory research that needs to be deepened and broadened, which aims to identify the impact of the internet, social networks, mobile devices and dating platforms on the conception of love between two people.

Once this problem has been formulated, it is immediately clear that we are not in a position to provide an answer to such a broad question. However, it is based on an intuition that cannot be easily dismissed, namely that the internet and in particular dating platforms cannot but have an impact on the relationships that are formed.

To address this issue, we sought to define the different forms of love. We then sought to understand the perception of love among people through the process of romantic relationships before tackling the question of user behaviour in relation to dating platforms.

Our two qualitative studies are necessarily extremely limited in terms of the conclusions that can be drawn from them, but they have enabled us to make progress in defining our problem by distinguishing three parameters of the love relationship, namely intimacy, passion and commitment.

This paper will have served its purpose if it helps to stimulate further research into how digital platforms change love behaviour and thus the conception of love.

BIBLIOGRAPHY

- [1]. Miljkovitch, R., & Cohen, E. (2007). Attachment in the couple relationship: A continuation of childhood? *Dialogue*, 175(1), 8796. -<https://doi.org/10.3917/dia.175.0087>
- [1]. Ramírez, J. E. (2022). Self-love as a basis for the love of others Self-love as a basis for the love of others, 14.
- [1]. Bankov, K. (2019). Cultural transformations of love and sex in the digital age. *Digital Age in Semiotics & Communication*, 2(November), 717. -<https://doi.org/10.33919/dasc.19.2.1>

- [1]. Wiederhold, B. K. (2010). Cyberpsychology, behavior, and social networking completes another milestone. *Cyberpsychology, behavior and social networking*, 13(6), 599-600. -<https://doi.org/10.1089/cyber.2010.1505>
- [1]. Vogels, E. A., & Anderson, M. (2020). Dating and relationships in the digital age. *Pew Research Center: Internet & technology*, n.a.(May), 2020. Retrieved from www.pewresearch.org.
- [1]. Genest Dufault, S. (2013). *The male experience of romantic breakup: perspectives on grief, gender and meaning in hypermodernity*.
- [1]. Sahut, J., & Rey, D. (2020). Digital Innovations and Intangible Assets: What Are the Impacts on Consumer Behavior and the Performance of Firms? *Innovaciones. Management International*, 24(5), 1001-105-.
- [1]. Christiane, L. (2021). The issue of virtual relationships in psychotherapy.
- [1]. Bergström, M. (2021). *Sexual uses of dating apps and sites. Digital social connections*. Retrieved from <https://hal.archives-ouvertes.fr/hal-03491722>
- [2]. Camille, P. (2016). Love in the digital age:
- [3]. Demonceaux, S. (n.d.). *The contemporary couple in the age of communicational nomadism.pdf*. University of Burgundy,.
- [4]. Demonceaux, S. (2014). S'aimer à l ' heure du numérique : la relation conjugale à l'épreuve de l'hyperconnectivité. *Sociologie et sociétés*, 46, 125-143.
- [5]. Duteille, C. (2007). The event of the encounter as an experience of temporal rupture. *Journal des lettres & sciences humaines*, 6, 81-88.
- [6]. Feybesse, C. (2015). *The adventures of love in the social sciences : social representations , psychometric evaluations and cognitive influences of passionate love .*
- [7]. Genest Dufault, S. (2013). *The male experience of romantic breakup: perspectives on grief, gender and meaning in hypermodernity*.
- [8]. JaeHwuen Jung, Ravi Bapna, Jui Ramaprasad, & Akhmed Umyarov. (2019). *LOVE UNSHACKLED: IDENTIFYING THE EFFECT OF MOBILE APP ADOPTION IN ONLINE DATING*. Philadelphia,.
- [9]. Le Douarin, L. (2002). *The microcomputer in the marital space. Cahiers internationaux* [1]. Aceh, kue tradisional khas, Rios, E. D. S., Donato, A. M., & Sprott, D. (2010). How the internet has changed dating? Retrieved from <https://www.golder.com/insights/block-caving-a-viable-alternative/>
Sociology (Vol. 112). <https://doi.org/10.3917/cis.112.0169>
- [10]. Marquet, J. (2009). Romantic love put to the test on the internet. *Dialogue*, 186(4), 11-23. <https://doi.org/10.3917/dia.186.0011>

- [1]. Samantray, S. (2015). Internet Addiction and Relationships: The Psychology behind It. *MOJ Addiction Medicine & Therapy*, 3(1), 1113. -<https://doi.org/10.15406/mojamt.2017.03.00024>
- [11]. Michel, B. (2006). The Formation of the Couple.
- [12]. Miljkovitch, R., & Cohen, E. (2007). Attachment in the couple relationship: A continuation of childhood? *Dialogue*, 175(1), 87-96. <https://doi.org/10.3917/dia.175.0087>
- [13]. Neyrand, G. (2015). The virtual's impact on the couple - How the ways couples form are disrupted in the internet era. *Dialogue*, 210(4), 59-70. <https://doi.org/10.3917/dia.210.0059>
- [14]. Ramírez, J. E. (2022). L ' amour de soi base de l ' amour d ' autrui L ' amour de soi base de l ' amour d ' autrui, 14.
- [15]. Rosenfeld, M. J. (2017). Marriage, choice, and couplehood in the age of the internet. *Sociological Science*, 4, 490-510. <https://doi.org/10.15195/v4.a20>
- [16]. Salmela, T., Colley, A., & Häkkinen, J. (2019). Together in bed? Couples' mobile technology use in bed. *Conference on Human Factors in Computing Systems - Proceedings*, 1-12. <https://doi.org/10.1145/3290605.3300732>
- [17]. Sternberg, R. J. (1986). *A triangular theory of love* (Vol. 93). <https://doi.org/10.4324/9780203311851>
- [1]. Eastwick, P. W., & Finkel, E. J. (2008). Sex Differences in Mate Preferences Revisited: Do People Know What They Initially Desire in a Romantic Partner? *Journal of Personality and Social Psychology*, 94(2), 245-264. -<https://doi.org/10.1037/0022-3514.94.2.245>
- [1]. Minina, A., Masè, S., & Smith, J. (2022). Commodifying love: value conflict in online dating. *Journal of Marketing Management*, 38(-12), 981-26. -<https://doi.org/10.1080/0267257X.2022.2033815>
- [1]. Marshall, T. C. (2012). Facebook surveillance of former romantic partners: Associations with postbreakup recovery and personal growth. *Cyberpsychology, Behavior, and Social Networking*, 15(10), 521-526. -<https://doi.org/10.1089/cyber.2012.0125>
- [1]. Kamp Dush, C. M., Arocho, R., Mernitz, S., & Bartholomew, K. (2018). The intergenerational transmission of partnering. *PLoS ONE*, 13(11), -119. <https://doi.org/10.1371/journal.pone.0205732>
- [1]. Kamp Dush, C. M., Arocho, R., Mernitz, S., & Bartholomew, K. (2018). The intergenerational transmission of partnering. *PLoS ONE*, 13(11), -119. <https://doi.org/10.1371/journal.pone.0205732>
- [2]. Merangin, D. I. D., Pattiselanno, F., Mentansan, G., Nijman, V., Nekaris, K. A. I., Pratiwi,

- [3]. Eastwick, P. W., & Finkel, E. J. (2008). Sex Differences in Mate Preferences Revisited: Do People Know What They Initially Desire in a Romantic Partner? *Journal of Personality and Social Psychology*, 94(2), 245-264. -<https://doi.org/10.1037/0022-3514.94.2.245>
- [4]. Marshall, T. C. (2012). Facebook surveillance of former romantic partners: Associations with postbreakup recovery and personal growth. *Cyberpsychology, Behavior, and Social Networking*, 15(10), 521-526. -<https://doi.org/10.1089/cyber.2012.0125>
- [5]. Minina, A., Masè, S., & Smith, J. (2022). Commodifying love: value conflict in online dating. *Journal of Marketing Management*, 38(-12), 981-26. -<https://doi.org/10.1080/0267257X.2022.2033815>
- [6]. Camille, P. (2016). Love in the digital age:
- [7]. Michel, B. (2006). The Formation of the Couple.
- [8]. Le Douarin, L. (2002). *The microcomputer in the conjugal space. Cahiers internationaux de sociologie* (Vol. 112). <https://doi.org/10.3917/cis.112.0169>
- [9]. Rosenfeld, M. J. (2017). Marriage, choice, and couplehood in the age of the internet. *Sociological Science*, 4, 490-510. -<https://doi.org/10.15195/v4.a20>
- [10]. Ramírez, J. E. (2022). Self-love as a basis for the love of others Self-love as a basis for the love of others, 14.
- [11]. Feybesse, C. (2015). *The adventures of love in the social sciences : social representations , psychometric evaluations and cognitive influences of passionate love .*
- [12]. Nayrou, F. (n.d.). L ' impossible objet de la transmission dans l ' anomie de la déliaison sociale, -136.
- [13]. Demonceaux, S. (n.d.). *The contemporary couple in the age of communicational nomadism.pdf*. University of Burgundy,.
- [14]. Hertlein, K. M., & Piercy, F. P. (2006). Internet Infidelity: A Critical Review of the Literature. *The Family Journal*, 14(4), 366-371. -<https://doi.org/10.1177/1066480706290508>
- [15]. Neyrand, G. (2015). The virtual's impact on the couple - How the ways couples form are disrupted in the internet era. *Dialogue*, 210(4), 59-70. -<https://doi.org/10.3917/dia.210.0059>
- [16]. Bankov, K. (2019). Cultural transformations of love and sex in the digital age. *Digital Age in Semiotics & Communication*, 2(November), 71-7. -<https://doi.org/10.33919/dasc.19.2.1>
- [17]. Miljkovitch, R., & Cohen, E. (2007). Attachment in the couple relationship: A continuation of childhood? *Dialogue*, 175(1), 87-96. -<https://doi.org/10.3917/dia.175.0087>
- [18]. Christiane, L. (2021). The issue of virtual relationships in psychotherapy.
- [19]. Samantray, S. (2015). Internet Addiction and Relationships: The Psychology behind It. *MOJ Addiction Medicine & Therapy*, 3(1), 111-3. -<https://doi.org/10.15406/mojamt.2017.03.00024>

- [20]. Vogels, E. A., & Anderson, M. (2020). Dating and relationships in the digital age. *Pew Research Center: Internet & technology, n.a.*(May), 2020. Retrieved from www.pewresearch.org.
- [21]. Wiederhold, B. K. (2010). Cyberpsychology, behavior, and social networking completes another milestone. *Cyberpsychology, behavior and social networking*, 13(6), 599600. -<https://doi.org/10.1089/cyber.2010.1505>
- [22]. Genest Dufault, S. (2013). *The male experience of romantic breakup: perspectives on grief, gender and meaning in hypermodernity*.
- [23]. Marquet, J. (2009). Romantic love put to the test on the internet. *Dialogue*, 186(4), 1123. -<https://doi.org/10.3917/dia.186.0011>
- [24]. Bankov, K. (2019). Cultural transformations of love and sex in the digital age. *Digital Age in Semiotics & Communication*, 2(December), 717. -<https://doi.org/10.33919/dasc.19.2.1>
- [25]. Demonceaux, S. (2014). S'aimer à l ' heure du numérique : la relation conjugale à l'épreuve de l'hyperconnectivité. *Sociologie et sociétés*, 46, 125143-.
- [26]. Ritcher L, L. (2014). *Internet Infidelity A Phenomenological Study of Critical Issues, Treatment and Assessment*□. Nova Southeastern University.
- [27]. Blanchard, M. (2007). From filial attachment to loving attachment: A bond for life? *Family Therapy*, 28(4), 415432. -<https://doi.org/10.3917/tf.074.0415>
- [28]. ROBERTSON, K. M., O'REILLY, J., & HANNAH, D. R. (2020). Finding meaning in relationships: The impact of network ties and structure on the meaningfulness of work. *Academy of Management Review*, 45(3), 596619. -<https://doi.org/10.5465/AMR.2015.0242>
- [29]. Bonnin, G., & Odou, P. (2010). Imagined communities, a territory for marketing action? The case of the online dating company Meetic. *Décisions Marketing*, 58, 2736. -<https://doi.org/10.7193/dm.058.27.36>
- [30]. Mlaiki, A., Kefi, H., & Kalika, M. (2012). Psychosocial factors and continuity of use of digital social networks: the case of facebook. *Recherches en Sciences de Gestion, N° 92*(5), 83111. -<https://doi.org/10.3917/resg.092.0081>
- [31]. Duteille, C. (2007). The event of the encounter as an experience of temporal rupture. *Journal des lettres & sciences humaines*, 6, 8188-.
- [32]. MASTER'S DEGREE IN COMMUNICATION BY ÉLODIE BEAUCHEMIN JANUARY 2022. (2022).
- [33]. Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). *Online Dating: A Critical Analysis From the Perspective of Psychological Science. Psychological Science in the Public Interest, Supplement* (Vol. 13). <https://doi.org/10.1177/1529100612436522>

- [34]. Bergström, M. (2021). *Sexual uses of dating apps and sites. Digital social connections*. Retrieved from <https://hal.archives-ouvertes.fr/hal-03491722>
- [35]. Aceh, kue tradisional khas, Rios, E. D. S., Donato, A. M., & Sprott, D. (2010). How the internet has changed dating? Retrieved from <https://www.golder.com/insights/block-caving-a-viable-alternative/>
- [36]. Sahut, J., & Rey, D. (2020). Digital Innovations and Intangible Assets: What Are the Impacts on Consumer Behavior and the Performance of Firms? *Innovaciones. Management International*, 24(5), 100105-.
- [37]. Sternberg, R. J. (1986). *A triangular theory of love* (Vol. 93). <https://doi.org/10.4324/9780203311851>
- [38]. Salmela, T., Colley, A., & Häkkinen, J. (2019). Together in bed? Couples' mobile technology use in bed. *Conference on Human Factors in Computing Systems - Proceedings*, -112. <https://doi.org/10.1145/3290605.3300732>
- [39]. JaeHwuen Jung, Ravi Bapna, Jui Ramaprasad, & Akhmed Umyarov. (2019). *LOVE UNSHACKLED: IDENTIFYING THE EFFECT OF MOBILE APP ADOPTION IN ONLINE DATING*. Philadelphia,.

