

Facebook and romantic relationships – a troubled couple

Oana Ștefăniță

National University of Political Studies and Public Administration, Bucharest, Romania

Abstract

Social media have become an integrated part of our everyday lives. With more than 2 billion active users of Facebook, the impact of social media sites on romantic relationships cannot be undermined. This paper seeks to explore from a theoretical perspective the impact of social networks on interpersonal relationships, namely the influence of Facebook use in romantic relationships. Furthermore, it will explore the attachment styles as predictors for online behavior.

Although the understanding of digital behavior is becoming increasingly important, studies conducted so far on how social networks are used to maintain and develop relationships or on how attachment styles moderate digital behavior are few and generated conflicting results. The use of social networking sites can offer many rewards, but one should never forget that the online environment is a double-edged sword. Combined with lack of self-confidence, anxiety, fear of abandonment it can lead to dependence, electronic intrusion, and amplified need to be in control. In turn, surveillance increases the sense of anxiety and guilt, trapping the user in a vicious circle which ultimately leads to negative experiences in the relationship.

Keywords: *Facebook use, romantic relationships, surveillance, electronic intrusion, jealousy, attachment style*

Corresponding author: Oana Ștefăniță

Phone number: (+40)737810059

E-mail address: oana.stefanita@comunicare.ro

I. INTRODUCTION

Romantic relationships are complicated, but the new immersive technologies seem to add a little bit more to that complexity. From “Facebook” to “Tic Toc” social media sites (SNSs) are more and better integrated in our everyday lives. They are so popular that 1 in 4 people around the world are currently using “Facebook”, “Instagram” or “Twitter” (Vincent, 2016). Those networks are even more popular with young people. Studies conducted so far show that adolescents are the largest consumer of social networks, with data indicating that more than 90% of adolescents have one or more active social networking profiles and 40% of them access Facebook multiple times during the day (Vannucci et al., 2017).

Social media are popular as they facilitate the dissemination and creation of content, as well as the sharing of information with members of online communities. SNSs can be defined in three simple words: consume, create and share. There are many studies regarding the reasons for social media use and all identified a diverse range of gratifications. New media offer social interaction, information about people and places, entertainment and comfort (Whiting & Williams, 2013). SNSs can also contribute to the satisfaction of emotional needs and integration needs by strengthening the relationships between individuals (Katz et al., 1974 apud Johnson & Kaye, 2003).

According to Parker and Plank (2000) there are three main reasons for using social media: the social interaction, the surveillance and finally, relaxation and escapism. Louis Leung (2009) identified four key gratifications of online content generation: meeting status recognition needs, cognitive needs, social needs and entertainment needs, while other authors compared both Facebook and Instant Messaging functions and identified six key factors: fun, affection, fashion, sharing problems and getting social information (Quan-Haase & Young, 2010). From another perspective, the main reasons may be procrastination, freedom of expression, conformance, fleeing reality, recreation or experimentation (Orchard et al., 2014, p. 392). With so many opportunities at the top of our fingers, there is no wonder that in 2019 Facebook reached over 2.3 billion active accounts which share more than 4 billion content pieces every day (Park, 2019). For adolescents, social media is important because it helps them meet new friends, keep in touch with existing ones and improve the quality of relationships. Also, they have the feeling of belonging to a community and have an increased self-esteem due to conversations, online support and positive feedback regarding their Facebook posts and profiles (Best et al., 2014).

But SNSs are a double-edged sword. Despite their popularity, they can also lead to negative issues, including mental health problems (Dobrea & Pasarelu, 2016). Although social media allow users to maintain social connections, prolonged use can lead to a decreased level of life satisfaction and an increased level in jealousy (Lin & Utz, 2015). A study conducted by the

Royal Society for Public Health (2017) shows that people who frequently use social networks are more prone to psychological stress, symptoms of anxiety and depression.

SNSs provide a self-presentation platform that allows users to actively select the content which appears on their profiles to strategically build a virtual self that highlights their most desirable traits. Social comparisons take place, however, between their real self in the offline world and the virtualized ideals of others, which can lead to negative effects on self-image, self-evaluation and well-being. There are studies which found a clear correlation between frequent use of Facebook and low self-esteem, low awareness, unrealistic expectations and inadequate social comparisons (Vogel et al., 2014). Users can draw the wrong conclusion that others have better lives, are happier so they can develop anxiety about how they are perceived by others in the online community. They may perceive their own life as unfair and develop uncertainty regarding their own person or their relationships, which can generate conflicts or jealousy in romantic relationships (Vannucci et al., 2017). The attachment theory is also used to explain how partners construct their relational maintenance strategies through social media and therefore, understanding the influence of attachment styles on digital behaviors became one of the topics discussed in the current academic environment (Lenhart et al., 2010, Drouin & Landgraff, 2012, Emery et al., 2014, Jin & Pena, 2010; Morey et al., 2013; Oldmeadow, Quinn, & Kowert, 2013; Trub, Revenson, & Salbod, 2014; Weisskirch, 2012).

Social media serve as a source of information and a source of tension between partners at the same time, many individuals engaging in surveillance behaviors, electronic intrusion, developing higher levels of jealousy, fear of missing out, distrust and relational dissatisfaction. Engagement with negative relational maintenance strategies such as electronic surveillance or intrusion creates a cycle of relational dysfunction as this behavior is both symptomatic of low-quality relationships and a generator of romantic issues.

II. IS IT GOING TO LAST? THE INFLUENCE OF FACEBOOK ON ROMANTIC RELATIONSHIPS

2.1. Facebook use and negative relational patterns

Personal or relationship uncertainty can lead to a negative relational maintenance approach such as interpersonal electronic surveillance (IES) which implies clandestine strategies employed by social media users to observe another user's online and offline behaviors. It is a mindful act with a clear goal in which members of the family, friends and romantic partners can be placed under surveillance (Tokunaga, 2011). The theory of reducing uncertainty states that when people meet, they initially face uncertainties about the behavior of others, about their

beliefs, values, and resort to strategies to reduce uncertainty and predict future behavior (Berger & Calabrese, 1975). Uncertainty exists in relationships when the details of certain events are ambiguous, problematic, unavailable or unconscionable, these issues causing difficulties in trying to predict the future behavior of partners and therefore, maintaining the uncertainty in relations (Brashers, 2001). Electronic surveillance is an easy way to get information without open intrusion through easy access to a partner's social networks. For example, a person can check the partner's photos from an event, check for status updates, tags, ratings and comments (Antheunis et al., 2010). Therefore, as no interaction is required, the target may never find out he or she is under surveillance as a partner tries to ease negative feelings or answer questions about the relationship. Suspicious partners find pictures as being the most relevant in their search for infidelity proofs, but conduct IES on all available data, including archived posts, photos or past interactions (Tokunaga, 2015).

Regarding the activity on Facebook and its influence on romantic relationships, a first level is the supervision of the partner which can amplify anxiety, jealousy and distrust in partners by identifying elements which seem to have no explanation, elements that are negatively interpreted without access to background information or to the whole context. Partners can be supervised by a thorough verification of their personal communication, especially by checking Facebook messages and related activities (likes or comments), these being widely used methods of verifying romantic infidelity (Billett & Dunn, 2017). Checking can be done anonymously, reducing the chances of being discovered, as all the traces left: search engine history or specific searches on the Facebook platform search bar can be deleted. Surveillance in the online environment is usually not as condemned as the partner's real-life surveillance by society and it is normalized by its high occurrence (Beukeboom & Utz, 2011).

The ambiguous scenes involving the partner interacting with other people of opposite sex are the most common triggers of jealousy in romantic relationships. People can start the surveillance of their partner's page, his or her friends list, the "likes" that were given or received, event attendance and comments. They can also use tags to identify photos even if these are not posted on their partner's personal page. As a measure to reduce anxiety, displaying relationship status and posting couple photos are effective ways to lower the feeling of insecurity (Tokunaga, 2011). Women tend to expose their relationship status on Facebook or on other social networks more than men, this action having on one hand the purpose of informing friends about the relationship and, on the other hand, creating a safety line for the couple by discouraging people who may be interested in a partner (Farrugia, 2013). Persistent supervision brings with it a greater exposure to new partner information due to Facebook's operating algorithms that favor the emergence of echo chambers (Bücher, 2012), which in turn will increase the need of control and the time spent online. A vicious cycle is therefore created because individuals cannot ignore

the intriguing triggers or what seems to be evidence of infidelity. Facebook may thus lead to new sources of conflict which are only an interface, hiding the real issues of the relationship (Fox & Moreland, 2014).

Individuals may get jealous if their partners become friends on Facebook or interact with many persons of opposite sex or if they do not have the status of the relationship visible on their profile. These issues are associated with lack of self-confidence, anxiety, sadness, fear of abandonment, rumination, irrational beliefs that lead to extreme online supervision and a permanent need of control. These aspects are characteristic to pathological jealousy or may reflect the presence of paranoid personality disorder tendencies (Guerrero & Affi, 1998). Jealousy is a frequent emotion in a relationship, but also one of the most destructive factors because the negative feelings and the effects of the surveillance act decrease the functionality of the relationship, causing one of the partners to leave the relationship (Tosun, 2012).

The jealousy in romantic relationships arises from real or imagined threats. The emotion is complex, combining several feelings such as anger, sadness, fear, all generated by suspected infidelity in relationship (Hudson et al., 2015). Jealousy may be pathological when it manifests itself as a relatively stable tendency to respond in a jealous manner, to accuse the partner, to investigate a partner's social networks profiles, private messages, objects or clothes, to ask them repeatedly where they are and what are they doing. Often, a jealous person will limit the partner's time spend with friends or family, restricting the interests or hobbies that involve activities outside the house, and controlling the social relationships of the partner. On the other hand, normal jealousy is a reaction to an event, an exposure to concrete, real evidence, or a scene indicating a possible threat to the relationship, and the partner is considered innocent until otherwise proven, unlike the pathological jealousy in which the partner is guilty despite evidence or arguments (Barelds & Barelds-Dijkstra, 2007).

Jealousy can also be divided into reactive, suspicious and delirious. The reactive jealousy is an emotional reaction based on a partner's infidelity, suspicious jealousy is being constantly afraid of being deceived by the partner, and delusional jealousy is manifested by trying to control and monitor other heterosexual relationships of the partner. Only the first form appears in the case of a real threat (Utz & Beukeboom, 2011).

Facebook emphasizes the feeling of jealousy, but the jealousy in the virtual environment is closely related to the feelings of jealousy already present in the real plan (Elphinston & Noller, 2011). The time spent on Facebook is closely related to the feelings of jealousy that arise from surveying the network. The level of jealousy is higher in women, in people with relationship engagement problems and low self-esteem, individuals seeking to increase their ability to predict a partner's behavior and to be in control (Marshall et al., 2013). Predictors of relationship satisfaction include engagement, intimacy, good communication, mutual trust, and similarity

between partners (Rau, Gao & Ding, 2008). Studies show that mature relationships are associated with the decrease of social influence in the couple, and intimacy mediates the connection between relationship satisfaction and the use of social networks, acting as a shield of protection (Hand et al., 2012, Farrugia, 2013).

As for gender differences, men tend to suffer more when their partner engages in surreptitious physical relationships, while women when being emotionally cheated (Sheets & Wolfe, 2001). Infidelity on the Internet can be defined as the use of this mean of communication to take any kind of sexual energy such as thoughts, feelings and behaviors outside an official relationship, so that these actions end up harming the relationship. Infidelity is a widespread phenomenon, and researchers say that over a lifetime, it occurs in 20% of couples with married partners and up to 70% in couples with unmarried partners (Blow & Hartnett, 2005). Men tend to be more involved in online extra-conjugal relationships than women, and while women tend to blame the person that the partner is contacting, men consider their partner to be directly responsible (Buss, 2000). Female individuals are more vulnerable than men when it comes to negative emotions that occur in fictitious scenarios about the partner.

A study showed that all participants were more jealous and annoyed when they imagined their partners having no photos of them as a couple on Facebook (Greenlee, Guadagno, & Muscanell, 2013). Women tend to have stronger emotional reactions while men tend to engage in violent or aggressive behavior. Women are prone to negative emotions about a partner's loyalty because they use Facebook more and so they take online interactions more seriously than men. The platform also favors the emotional infidelity with another partner, which is more disturbing for females than for men (Hudson et al., 2015).

Although social media allow users to maintain social connections, long-term use can lead to negative consequences such as decreased life satisfaction and increased jealousy. The use of social networking sites combined with lack of self-confidence, anxiety, fear of abandonment, rumination and irrational beliefs, can lead to dependence, electronic intrusion, and an amplified need to be in control. In turn, surveillance increases the sense of anxiety and guilt, ultimately leading to negative experiences in the relationship. Thus, although Facebook can be a tool to facilitate communication between partners and connect to their lives, it can also produce negative effects.

2.2. Attachment styles – predictors of digital behavior in romance

An effective communication between partners is vital for the functioning of romantic relationships and is one of the determining factors to ensure a stable and long-lasting interaction. However, communication is not limited to direct interactions, and over the last decade, digital

communication became an essential part in any modern relationship. For example, 82% of young adults keep in touch with their romantic partners throughout the day by texting (Schade et al., 2013). Recent studies use attachment theory as an analysis framework to explore how people perceive the privacy of different communication environments, and how they engage differently in online interactions or digital surveillance (Wardecker et al., 2016; Mikulincer & Shaver, 2007).

The attachment theory (Bowlby, 1979) argues that the relationships an individual experiences with attachment figures in infancy lead to working models that shape future interactions as an adult, influencing the level of openness, disclosure of personal information, processing of social information, preference for close relationships or avoidance (Mikulincer & Shaver, 2007; Michikyan, Subrahmanyam, & Dennis, 2014). Insecurely attached individuals form negative impressions of self or regarding others, depending on their attachment anxiety or avoidance levels. Anxiety can cause increased uncertainty, while avoidance low engagement in personal relationships as individuals with insecure patterns reedit the primary experience of feeling unloved or undervalued with the current partner (Brennan, Clark, & Shaver, 1998).

In the context of romantic relationships, avoidance reflects the mistrust of one of the partners in the goodwill and good intentions of the other, anxiety reflects a partner's concern about the availability of the other. The avoidant individual strives to do things on his own while maintaining an emotional distance from his partners, and the anxious one looks for clues to reconfirm the fact that the other will remain close whenever necessary (Mikulincer & Shaver, 2007). Avoidant individuals may use social media to keep the contact in relationships and the distance at the same time and prefer social media to terminate relationships (Wardecker et al., 2016; Nitzburg & Farber, 2013). Anxiously attached persons tend to spend more time on social media and are often present on all the channels they have at their disposal to stay in permanent contact with their partner. Besides contact, SNSs are used to gather information to sooth possible concerns over factors that can endanger the relationship (Hart et al., 2015).

The constant need for information, as well as the anxiety caused by the lack of permanent contact with the romantic partner, can lead to fear of missing out (Przybylski et al., 2013) and electronic intrusion as a form of social media dependence (Blackwell et al., 2017). Anxiety may contribute to perpetrate electronic intrusion as a form of control and surveillance through a vicious cycle. Individuals find information that triggers their anxiety, engage in controlling behavior to reduce the feeling, but as they misinterpret the new information, they register an increased anxiety level (Reed, Tolman, & Safyer, 2015). Electronic intrusion is associated with control obsession or other addictions, jealousy, lack of trust and low relational satisfaction (Muisse et al., 2009; Lin & Utz, 2015). The desire to be in contact with the partner and to gather information for reassurance, circumstantial suspicion or anxiety can turn into forms of abusive

surveillance (Tokunaga, 2011; Marshall et al., 2013). Anxious people generally have a negative self-esteem but positive views about others, tend to perceive their partner as being more valuable and thus resort to control strategies to ensure their closeness and to prevent a possible abandonment (Oldmeadow, Quinn, & Kowert, 2013).

The evolution of technology brings with it many changes in terms of communication between partners engaged in romantic relationships. Attachment theory remains one of the most appropriate analysis frameworks for human behavior in relationships and if SNSs can be perceived as an extension of direct interaction processes, then the characteristics of avoidant and anxious attachment styles can function as predictors of relationship related digital behavior.

III. CONCLUSIONS

The technological evolution changed how people interact and brought the transposition of interactions in social networking sites. Social media have the capacity to address multiple needs at a touch of a button, and they can satisfy also the needs of a romantic relationship by strengthening it. The present theoretical paper addresses a new trend in research created by the increased impact of social networks in our everyday lives. It provides a short review of Facebook's impact on romantic relationships and how can various online behaviors be predicted using the preexistent attachment style.

Facebook use can lead to new sources of conflict in relations, intrusion, distrust both in oneself and in a partner, jealousy, use of indirect control strategies instead of assertive communication, and low satisfaction (Fox & Moreland, 2014; Tokunaga, 2011; Vannucci et al., 2017; Beukeboom & Utz, 2011). Online surveillance and fear of missing out together with the anxious attachment, can even lead to dependence of online social networks (Blackwell et al., 2017). The use of social media to ease negative feelings turns out to be a vicious cycle and the behaviors intended to ensure the protection of the relationship undermine it even more.

Future research should investigate Facebook use in connection to attachment style and relationship uncertainty, relationship and life satisfaction, jealousy, obsessive thoughts, intrusion and abusive actions, control and access to private information, social media exposure, rumination, and intrusive offline behavior. Facebook use differs among users and has different implications especially on personal relationships as it exacerbates offline characteristics. Relationships nowadays have an offline as well as an online dimension. Digital behavior directly affects the level of relational satisfaction and constitutes an essential element in addressing psychological distress in relationships.

References

- Antheunis, M. L., Valkenburg, P. M., & Peter, J. (2010). Getting acquainted through social network sites: Testing a model of online uncertainty reduction and social attraction. *Computers in Human Behavior*, 26, 100–109.
- Barelds, D. P. H., & Barelds-Dijkstra, P. (2007). Relations between different types of jealousy and self and partner perceptions of relationship quality. *Clinical psychology & psychotherapy*, 14(3), 176–188.
- Berger, C., & Calabrese, R. (1975). Some explorations in initial interaction and beyond: toward a developmental theory of interpersonal communication. *Human Communication Research*, 1, 99–112.
- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and adolescent wellbeing: a systematic narrative review. *Children and Youth Services Review*, 41, 27–36.
- Beukeboom, C.J., & Utz, S., (2011). The Role of Social Network Sites in Romantic Relationships: Effects on Jealousy and Relationship Happiness. *Journal of Computer- Mediated Communication*, 16(4), 511-527.
- Billett, G., & Dunn, M. J., (2017), Gealously Levels in Response to Infidelity-Revealing Facebook Messages Depend on Sex, Type of Message and Message Composer: Support for the Evolutionary Psychological Perspective. *Evolutionary Psychological Science*, 4(1), 17-23.
- Blackwell, D., Leaman, C., Tramposch, R., Osborne, C., & Liss, M. (2017) Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction. *Personality and Individual Differences*, 116, 69–72.
- Blow, A. J., & Hartnett, K. (2005), Infidelity In Committed Relationships II: A Substantive Review. *Journal of Marital and Family Therapy*, 31, 217-233.
- Bowlby, John. (1979). *The making and breaking of affectional bonds*. London: Tavistock.
- Brashers, D. E. (2001), Communication and Uncertainty Management. *Journal of Communication*, 51, 477-497.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York: Guilford Press.
- Bücher, T. (2012) Want to be on the top? Algorithmic power and the threat of invisibility on Facebook. *New Media & Society*, 14(7), 1164–1180.
- Buss, D. M. (2000). *The dangerous passion: Why jealousy is as necessary as love and sex*. New York: Free Press.

- Dobrea, A., & Pasarelu, C. R. (2016) Impact of social media on social anxiety: a systematic review. *New Developments in Anxiety Disorders*, 7, 129–149.
- Drouin, M., & Landgraff, C. (2012). Texting, sexting, and attachment in college students' romantic relationships. *Computers in Human Behavior*, 28, 444-449.
- Elphinston, R., & Noller, P., (2011). Time to Face It! Facebook Intrusion and the Implications for Romantic Jealousy and Relationship Satisfaction. *Cyberpsychology, behavior and social networking*. 14(11) 631-635.
- Emery, L. F., Muise, A., Dix, E. L., & Le, B. (2014). Can you tell that I'm in a relationship? Attachment and relationship visibility on Facebook. *Personality and Social Psychology Bulletin*, 40, 1466-1479.
- Farrugia, R.C., (2013). Facebook and Relationships: A Study of How Social Media is Affecting Long-Term Relationships. *Rochester Institute of Technology*. Available at <https://scholarworks.rit.edu/theses/30/>
- Fox, J., & Moreland, J.J., (2014), The dark side of social networking sites: An exploration of the relational and psychological stressors associated with Facebook use and affordances. *Computers in Human Behavior*, 45, 168–176.
- Greenlee, L.R., Guadagno, R.E., & Muscanell, N., (2013), Don't It Make My Brown Eyes Green? An Analysis of Facebook Use and Romantic Jealousy, *Cyberpsychology, Behavior, and Social Networking*, 16 (4), 237–242.
- Guerrero, L. K., & Afifi, W. A. (1998). Communicative responses to jealousy as a function of self-esteem and relationship maintenance goals: A test of Bryson's dual motivation model. *Communication Reports*, 11, 111–122.
- Hand, M., Thomas, D., Buboltz, W., Deemer, E., & Buyanjargal, M. (2012). Facebook and Romantic Relationships: Intimacy and Couple Satisfaction Associated with Online Social Network Use. *Cyberpsychology, behavior and social networking*. 16(1), 8-13.
- Hart, J., Nailling, E., Bizer, G. Y., & Collins, C. K. (2015). Attachment theory as a framework for explaining engagement with Facebook. *Personality and Individual Differences*, 33–40.
- Hudson, M. B., Nicolas, S. C., Howser, M. E., Lipsett, K. E., Robinson, I. W., Pope, L. J. et al. (2015). Examining How Gender and Emoticons Influence Facebook Jealousy. *Cyberpsychology, Behavior, and Social Networking*, 18(2), 87–92.
- Jin, B., & Pena, J. F. (2010). Mobile communication in romantic relationships: Mobile phone use, relational uncertainty, love, commitment, and attachment styles. *Communication Reports*, 23, 39-51.
- Johnson, T. J., & Kaye, B. K. (2003). Around the World Wide Web in 80 Ways: How Motives for Going Online Are Linked to Internet Activities among Politically Interested Internet Users. *Social Science Computer Review*, 21 (2), 304-25.

- Lenhart, A., Ling, R., Campbell, S., & Purcell, K. (2010). *Teens and mobile phones. Pew internet and American life project*. Available at [http://pewinternet.org/ Reports/2010/Teens-and-Mobile-Phones.aspx/](http://pewinternet.org/Reports/2010/Teens-and-Mobile-Phones.aspx/).
- Leung, L. (2009). User generated content on the internet: An examination of gratifications, civic engagement and psychological empowerment. *New Media & Society*, 11 (8), 1327-1347.
- Lin, R., & Utz, S. (2015). The emotional responses of browsing Facebook: happiness, envy, and the role of tie strength. *Computers in Human Behavior*, 52, 29–38.
- Marshall, T. C., Bejanyan, K., Di Castro, G., & Lee, R. A. (2013), Attachment styles as predictors of Facebook-related jealousy and surveillance in romantic relationships. *Personal Relationships*, 20, 1–22.
- Michikyan, M., Subrahmanyam, K., & Dennis, J. (2014). Can you tell who I am? Neuroticism, extraversion, and online self-presentation among young adults. *Computers in Human Behavior*, 33, 179–183.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press.
- Muise, A., Christofides, E., & Desmarais, S. (2009). More information than you ever wanted: does Facebook bring out the greeneyed monster of jealousy? *CyberPsychology & Behavior*, 12, 441–444.
- Nitzburg, G. C., & Farber, B. A. (2013). Putting up emotional (Facebook) walls? Attachment status and emerging adults' experiences of social networking sites. *Journal of Clinical Psychology*, 69, 1183–1190.
- Oldmeadow, J. A., Quinn, S., & Kowert, R. (2013). Attachment style, social skills, and Facebook use amongst adults. *Computers in Human Behavior*, 29, 1142-1149.
- Orchard, L. J., Fullwood, C., Galbraith, N., & Morris, N. (2014). Individual Differences as Predictors of Social Networking. *Journal of Computer-Mediated Communication*, 19, 388-402.
- Park, M. (2019). *Facebook Reports First Quarter 2019 Results*. Available at <https://investor.fb.com/investor-news/press-release-details/2019/Facebook-Reports-First-Quarter-2019-Results/default.aspx>
- Parker, B. J., & Plank, R. E. (2000). A uses and gratifications perspective on the Internet as a new information source. *American Business Review*, 18 (2), 43-9.
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 1841–1848.
- Quan-Haase, A., & Young, AL. (2010). Uses and gratifications of social media: A comparison of Facebook and Instant Messaging. *Bulletin of Science, Technology & Society*, 30, 350-361.
- Rau P.P., Gao Q., & Ding Y., (2008). Relationship between the level of intimacy and lurking in online social network services. *Computer Human Behavior*, 24(6), 2757-2770.

- Reed, L. A., Tolman, R. M., & Safyer, P. (2015). Too close for comfort: The role of attachment insecurity in intrusive digital media behaviors in dating relationships. *Computers in Human Behavior*, 50, 431-438.
- Royal Society for Public Health. (2017). *#StatusOfMind: social media and young people's mental health and wellbeing*. Available at <https://www.rsph.org.uk/uploads/assets/uploaded/62be270a-a55f-4719-ad668c2ec7a74c2a.pdf>
- Schade, L. C., Sandberg, J., Bean, R., Busby, D., & Coyne, S. (2013). Using technology to connect in romantic relationships: effects on attachment, relationship satisfaction, and stability in emerging adults. *Journal of Couples and Relationship Therapy*, 12, 314-338.
- Sheets, V. L., & Wolfe, M. D., (2001), Sexual jealousy in heterosexuals, lesbians and gays. *Sex Roles*, 44, 255-276.
- Tokunaga, R. S. (2011). Social networking site or social surveillance site? Understanding the use of interpersonal electronic surveillance in romantic relationships. *Computers in Human Behavior*, 27, 705-713.
- Tokunaga, R. S. (2015). Interpersonal surveillance over social network sites: Applying a theory of negative relational maintenance and the investment model. *Journal of Social and Personal Relationships*, 33(2), 171–190.
- Tosun, L.P. (2012) Motives for Facebook Use and Expressing “True Self” on the Internet. *Computers in Human Behavior*, 28, 1510-1517.
- Trub, L., Revenson, T. A., & Salbod, S. (2014). Getting close from far away: mediators of the association between attachment and blogging behavior. *Computers in Human Behavior*, 41, 245-252.
- Vannucci, A., Flannery, K., & Ohannessian, C. (2017). Social media use and anxiety in emerging adults. *Journal of Affective Disorders*, 207, 163–166.
- Vincent, E. A. (2016) *Social media as an avenue to achieving sense of belonging among college students*. *VISTAS Online*. Available at: <https://www.counseling.org/docs/default-source/vistas/social-media-as-an-avenue.pdf?sfvrsn=8>
- Vogel, E. A., Rose, J. P., Roberts, L. R., et al. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*, 3, 206–222.
- Wardecker, B.M., Chopik, W., Boyer, M., & Edelstein, R. (2016). Individual differences in attachment are associated with usage and perceived intimacy of different communication media. *Computers in Human Behavior*, 59, 18-27.
- Weisskirch, R. S. (2012). Women's adult romantic attachment style and communication by cell phone with romantic partners. *Psychological Reports*, 111(1), 281-288.
- Whiting, A., & Williams, D. (2013). Why people use social media: a uses and gratifications approach. *Qualitative Market Research: An International Journal*, 16(4), 362–369.