



Bachelor Thesis

“A comparison of Facebook and Instagram concerning emotions
regarding, and identification with an automatically
generated autobiography”

Deborah Klink



UNIVERSITY OF TWENTE
Teuntje Elfrink & Marion Sommers-Spijkerman
Faculty of Behavioural, Management and Social Sciences (BMS)
Department of Positive Psychology and Technology

Abstract

In this study, a comparison of Facebook and Instagram was made concerning the emotions regarding, and identification with an automatically generated autobiography based on social media. With the increasing importance of social media, people create their own online autobiographies. Autobiographies and reminiscing on those play an important role in the construction of identity. Furthermore, during the act of reminiscence, emotions are elicited. This research aimed at exploring in general valence of emotions which are elicited while reviewing an automatically generated autobiography. Additionally, the level of identification was tested. A mixed design was employed with condition (Facebook vs. Instagram) and time (pre-test vs. post-test) as independent variables. The website *MySocialBook.com* was used to create an automatically generated autobiography based on either Facebook or Instagram posts. Participants (N=24) completed the PANAS before and after the reviewing of the automatically generated autobiography to measure positive and negative emotions. Furthermore, two items were used to measure the identification with the autobiography after having reviewed the automatically generated autobiography. It was shown that participants reported significantly more positive emotions, yet no change in negative emotions after reviewing their automatically generated autobiography compared to the pre-test. However, no difference was found between Facebook and Instagram. Furthermore, the level of identification was similar for both conditions. The results indicate that more positive emotions, but not negative ones, are experienced after reviewing one's own social media profile, irrespective of which social media platform is used. This might suggest that the post content does not differ, despite the differences in audience and post type between Facebook and Instagram. Nevertheless, this study hints at a possible link between the experienced emotions and the identification with one's social media profile. Finally, the possible use of social media as a tool in reminiscence therapy is briefly discussed.

Table of Contents

Introduction.....	3
Online autobiographies	4
Theoretical Framework.....	4
The current study	8
Methods	9
Design	9
Participants	9
Materials.....	10
Measures.....	10
Procedure.....	12
Data analysis.....	13
Results.....	14
Differences in positive and negative emotions between Facebook and Instagram, and pre- and post-test	14
Level of identification does not differ between conditions	14
Discussion	14
Overview of findings	14
Strengths and limitations	16
Practical implications.....	18
Future research	19
Conclusion.....	19
References.....	21
Appendix A - Questionnaires.....	25
Appendix B – Informed consent	26

Introduction

Social Networking sites like Facebook, Twitter, or Instagram are popular among adolescences. Around 90% of the 16 to 24-year-olds in Germany and the Netherlands indicated they used social networking sites (Central Bureau of Statistics, 2014; Federal Office of Statistics, 2018). Furthermore, more than 500 million pictures are uploaded worldwide to Instagram each day and around 1.52 billion users are active on Facebook daily (Instagram, 2018; Facebook Company Info, 2019). This shows, that social media is used frequently by people and that they share many aspects of their lives and identities on social media platforms by publishing photos, thoughts and moments of their lives online (Curtis, 2015). This way, people create their own autobiography on social networking sites, to share them with their friends, family, and strangers. In this study, the identification with automatically generated autobiographies and the accompanying emotions is explored.

These online autobiographies represent an important part in an individual's life, as well as part of their identity (Marwick, 2013; Q. Wang, Lee, & Hou, 2017). Similarly, Wilson and Ross (2003) stressed the bidirectional influence of autobiographical memory and self-identity, in which autobiographical memory is an important part of self-identity and self-identity is important in the formation of autobiographical memory. Consequently, social media posts represent an online autobiography and can thus be used as a new way to reminiscence about one's life. This might be supported by the fact that social networking sites such as Facebook or Instagram save moments, experiences, thoughts and situations that were judged to be important and worthy of sharing with others by the individual (Q. Wang et al., 2017).

Nevertheless, not much research in the fields of social media and reminiscence has focused on reviewing one's own social media posts and the reminiscence function of social media. An exception by Thomas and Briggs (2016a, 2016b) explored the value of automated autobiographies based on social media as a tool for reminiscence with the applications *Museum of Me* and *MySocialBook*. Furthermore, research on emotions in regard to reviewing one's own social media posts has focussed mainly on regret and an individual's concern about what other people might think of them (Y. Wang et al., 2011; Zhao et al., 2013). Additionally, the emotional responses of people while browsing Facebook were studied, including positive emotions (Lin & Utz, 2015). However, the possible positive emotions which might be elicited while reviewing one's own profile and posts were not of special focus. Consequently, this study aims to provide a more complete picture on the emotions elicited by reviewing one's own social media posts.

Moreover, the extent of identification with one's own social media presence is not widely researched. So far, research in the field of social media has focused on the way social media is linked and can help or hinder identity construction (Camacho, Minelli, & Grosseck, 2012; Thomas & Briggs, 2016a). Nevertheless, it might be important to find out to what extent individuals identify with their online presence. This is because social media might not only be linked to identity construction, as many moments are shared on social media but also to creating an online autobiography (Thomas & Briggs, 2016a).

Online autobiographies

These online autobiographies can be generated with the help of applications, such as Intel's *Museum of Me* or the website *MySocialBook.com*, which use social media posts to create automated autobiographies. More specifically, they allow an individual to review, reflect, and reminiscence on their own life based on posts on social networking sites, by putting all posts together in a way that allows an easy overview (Paramboukis, Skues, & Wise, 2016). The two most popular social networking sites which allow for such an automatically generated autobiography to be created are Facebook and Instagram. While Instagram mainly allows for visual content, such as photos and videos, Facebook is constructed more widely. In addition to photos and videos, it is also possible to share texts and posts from other users (Facebook Company Info, 2019). However, the extent to which these sites can be used to reflect and reminiscence on the content itself and on an individual's life is still unclear (Thomas & Briggs, 2016a). Therefore, the question arises, whether there exists a difference between persons whose autobiography is created by using the content of Facebook or Instagram in regard to their identity and emotions experienced while reviewing their autobiography.

Theoretical Framework

Autobiographical memory. Autobiographical memory is part of the explicit memory, which stores facts and events (Williams, Conway, & Cohen, 2008). More specifically, autobiographical memory encompasses experiences and facts of an individual about themselves (Williams et al., 2008). However, Fivush, Habermas, Waters, and Zaman (2011) state that autobiographical memory "goes beyond the recalling of the who, what, where and when" (p. 322) of those experiences and facts, but includes the reasons for explaining why the experience happened the way it did, the meaning ascribed to the experience, as well as an explanation of its importance to the individual. This way, autobiographical memory is the memory of an individual's life, about their relationships, and social interactions (Fivush, Habermas, Waters, & Zaman, 2011). More specifically, autobiographical memory develops as part of social

interactions which include significant life events, which are then told and retold (Nelson & Fivush, 2004).

Identity. On the one hand, an individual's current beliefs, views of the self, and aims influence their memory and judgment of their past selves. On the other hand, what exactly an individual remembers, as well as how past selves and experiences are remembered influences an individual's current identity (Wilson & Ross, 2003). In this way, autobiographical memory is inevitably linked to and plays an important role in the construction of identity (Wilson & Ross, 2003). Identity is constructed especially in adolescence and early adulthood and involves identifying who an individual is, what is valued and how one would like to spend their life (Berk, 2013). It is usually thought of as being fixed and stable over time, however, contrary to beliefs, identity is constantly changing throughout life (Berk, 2013). Moreover, a stable identity describes an individual who is confident enough to be him or herself and also represents the values, which are seen as important, to the outside (Sheldon & Elliot, 1999).

Furthermore, people will present themselves differently to different people and in varying contexts, presenting a different part of their identity in each case (Goffman, 2002). Consequently, the concept that an individual might have multiple roles or identities is called hybridised identity (Bennett & Folley, 2014). In this sense, an individual can occupy roles such as being a student, employee, and child to their parents simultaneously and all of these roles are part of the individual's identity.

Online identity. Social networking sites are defined as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections" (boyd & Ellison, 2007, p. 211). According to some postmodern theorists, people construct their identities using these social networking sites, consumer goods and other mass media (Marwick, 2013). More specifically, people will construct their identities based on the clothes they wear or the media they consume. In this way, people separate themselves from others and show who they are by putting their belongings on display and showing off their individuality (Woodward, 1997). In a sense, social networking sites, such as Facebook or Instagram, might support this way of presenting one's identity, as these platforms allow people to share these parts of their life, while other parts, such as emotions and interpersonal connectedness are more difficult to convey through social media.

This view also supports the notion of an *online identity*, however, this is often seen as different from the *offline identity* (Marwick, 2013). Suler (2005) argued that due to the anonymity of social media, individuals might behave differently online than they would offline.

For example, they might disclose more personal information (to strangers) or behave more rudely than they would in the offline world (Suler, 2005). This effect is called *online disinhibition* and it is argued that this is due to the fact that the online and offline identities are not integrated, and the online identity is seen as a dissociated self (Suler, 2005).

Additionally, Marwick (2013) found that the perceived audience plays another role in the expression of online identity, where different information is shared with close friends compared to a group of strangers. Consequently, the type of information that people share might differ across different social media platforms and the degree to which an individual sees the online identity as part of their offline identity might vary as well. This is further supported by the fact that different social networking sites allow different types of information sharing (Marwick, 2013). For instance, Instagram only allows pictures and videos to be posted, whereas Facebook also permits for text posts to be shared. Additionally, people usually try to present their best selves and will attempt to only portray their ideal self-image on social media (Dunne, Lawlor, & Rowley, 2010).

Reminiscence. The creation of an online identity is accompanied by the sharing of information about oneself. By sharing many aspects of their self, individuals are creating their own online autobiography, as they are sharing their thoughts and experiences (Curtis, 2015). Furthermore, by revisiting the photos, videos and text posts that were published with others in this online autobiography a process of reminiscence is possible. More specifically, reminiscence typically describes the process of recalling memories of oneself in past experiences (Bluck & Levine, 1998). From this, it is clear that the act of reminiscing is linked to memory, especially autobiographical memory (Merriam, 1980). Even though reminiscing is often linked to the act of reflecting about one's life at an old age, it is also important at a younger age, for instance, for the construction of identity (Reese, Yan, Jack, & Hayne, 2010).

Emotions during Reminiscence. Emotions are linked to memory. Research has shown that emotions can change the way in which information about the self is organized and how the self is appraised (Ruth & Vilkkko, 1996). According to Butler (1963), the process of life review in elderly people describes the critical analysis of one's past life and can help to give new significance by integrating prior conflicts and increase satisfaction and self-esteem. Furthermore, fear and anxiety about the future can be reduced (Haight & Webster, 1995). On the contrary, life review might also lead to the feeling that one's life has been a failure (Wong & Watt, 1991). Similar feelings might also hold true for the reflection about social media posts. For example, Y. Wang et al. (2011) found that people often regret some of the information that they shared online. Related to this, people often report a concern about how others might see

and interpret their posts (Zhao et al., 2013). Additionally, participants in a study by Krasnova, Wenninger, Widjaja, and Buxmann (2013) reported feelings of boredom, frustration, sadness, loneliness, anger, and guilt while using Facebook. It could be argued that the same or similar emotions are also experienced while reviewing one's own social media posts.

At the same time, people might also experience positive emotions while reviewing and reflecting on their social media posts. Positive emotions associated with the everyday use of social media are, for instance, joy or fun, excitement, relaxation or satisfaction (Krasnova et al., 2013). Moreover, people also reported being proud of their profile (Oldmeadow, Quinn, & Kowert, 2013). Similar to the negative feelings, it might be expected that these or similar positive feelings are not exclusive to viewing other's posts but can also be experienced while reviewing one's own posts.

Social networking sites. In the present study, the social networking sites Facebook and Instagram will be compared. Facebook is a social networking site which was founded in 2004 (Camacho et al., 2012). It was initially founded to enable university students to make and preserve relationships which were relevant to the university environment (Ellison et al., 2007). Later, it was expanded to an educational setting in other countries and to the public (Camacho et al., 2012). In the third quarter of 2018, Facebook had 375 million users in Europe alone (Senn, 2018).

Facebook has a wide range of features. The social networking site enables the user to post pictures, videos, and text posts. It can be used to keep up with old friends, as well as making new friends (boyd & Ellison, 2007; Joinson, 2008; Raacke & Bonds-Raacke, 2008). Nevertheless, Facebook was most frequently used to stay in touch with old friends in contrast to finding new friends (Joinson, 2008; Raacke & Bonds-Raacke, 2008). Further evidence for the fact that Facebook is not frequently used to meet new people comes from Ross et al. (2009), who found that Facebook friends are usually "individuals known from the offline world" (p. 2).

Instagram is another social networking site which was launched in 2010. Around one billion people use it today (Instagram, 2018). In 2012, Instagram was bought by Facebook Inc. (Upbin, 2012). However, in contrast to Facebook, Instagram focuses exclusively on photography and videography (Paramboukis et al., 2016). Nevertheless, comments and short written descriptions are possible. Instagram is most often used for social interaction, archiving, self-expression, escaping one's own reality and follow the daily lives of other people (Lee, Lee, Moon, & Sung, 2015). Furthermore, social interaction was the strongest motivator for using Instagram and it is frequently used to interact with family, friends, and individuals who are not known in the offline world. Moreover, Marwick (2015) suggested that having as many

followers, Instagram friends, as possible might be a strong motivating factor for using Instagram.

The current study

In the current study, a comparison of Facebook and Instagram with regard to emotions related to and identification with an automatically generated autobiography will be made. It should be investigated whether a difference exists between the experienced emotions while reviewing an automatically generated autobiography based on posts generated from either of the two social networking sites. Furthermore, it is assumed that the degree to which people identify with an automatically created autobiography differs between Facebook and Instagram.

Both Facebook's, as well as Instagram's layout of the sites, cannot be customized. However, customizing was shown to be a common way to show identity by, for instance, picking a specific colour or layout to express one's individuality (Marwick, 2015). Consequently, drawing on Woodward's (1997) theory, one would expect that people will try to find another way of showing their individuality and identity, in this case by the type of content that is posted and shared with the audience. Furthermore, the audience might differ for Facebook in comparison to Instagram, as Facebook friends are usually individuals known from the offline world, whereas for Instagram, a strong motivator is the accumulation of many followers, who are usually not known in real life. Moreover, the information that is shared in those social networking sites might differ due to the specifics of diverse services and audiences (Thomas & Briggs, 2016a). Consequently, it is assumed that the content, which is shared on Facebook and Instagram differs, which in turn leads to a different degree of identification with it. More specifically, due to the more personal connection of Facebook's audience compared to the audience on Instagram, a higher degree of identification with one's Facebook profile might be expected.

Additionally, the review of the content from social networking sites might lead to different emotions. Research has found that people experience, for instance, regret when reviewing their social media posts. It might be that due to the difference in audience, content, and specifics of the two social networking sites, the emotions while reviewing the content differ as well.

Research question 1: Is there a difference in emotions before and after reviewing an automatically generated autobiography?

Research question 2: Is there a difference between people whose autobiography is created using the content of Facebook compared to people whose autobiography is created using the content of Instagram in regard to the emotions that are evoked while reviewing the created autobiography?

Research question 3: Is there a difference between people whose autobiography is created using the content of Facebook compared to people whose autobiography is created using the content of Instagram in regard to the extent they can identify themselves with the content?

Methods

Design

The study employed a between-subject quasi-experimental design with reviewing of an automatically generated autobiography based on either Facebook or Instagram posts as the independent variable, and emotions regarding and identification with an automatically generated autobiography as the dependent variables. Participants were assigned to either the Facebook or Instagram condition, dependent on with which site they had an account and met the requirements of number of posts. Participants filled out a pre-test measuring their emotions and a post-test, again measuring their emotions as well as their identification with an automatically generated autobiography. Ethical approval was obtained from the faculty of the Behavioural, Management and Social Sciences (BMS) of the University of Twente (registration number 190257).

Participants

The participants were recruited using a purposive sampling because they were selected based on whether they met the requirement of the website *MySocialBook.com*. The researcher approached participants either personally or via the private messengers in Facebook or Instagram and asked whether they would be interested in participating in this study. Participants had to have an Instagram or a Facebook account with at least 68 posts. Due to the technical constraints of the application used to generate the autobiographies, participants who did not have an Instagram account or a Facebook account with at least 68 posts were excluded from the study. In total, 56 people were screened for the study. Of these, 33 met the requirements of having an Instagram or Facebook account with at least 68 posts. The final sample, which was used for the analysis included 24 participants. There were 12 people in the Facebook group and 12 people took part in the Instagram group. Of the total 24 participants, 6 were men and 18

were women (M_{age} : 23.88, SD_{age} : 7.06). Furthermore, 15 of the participants were German (62.5%), three were Austrian (12.5%), two were American (8.3%), two were French (8.3%), one participant was Finnish (4.2%) and one participant had a dual citizenship (German and Turkish, 4.2%).

Materials

During the study, an informed consent, a laptop, a digital self-report questionnaire, and the application *MySocialBook* were used. The application was chosen due to the technical compatibility with both Facebook and Instagram. This ensured better comparability of the automatically generated autobiographies from both social networking sites, due to a similar layout. Furthermore, online self-report questionnaires were used to measure positive, as well as negative emotions, and the extent of identification after having reviewed the automatically generated autobiography.

Measures

The online-questionnaire used was assembled from an adapted version of the *Positive Affect Negative Affect Schedule* (PANAS, (Watson, Clark, & Tellegen, 1988) in order to measure emotions and two items to measure participants' level of identification with their automatically generated autobiography (Appendix A).

Positive Affect Negative Affect Schedule. The PANAS was developed by Watson et al. (1988). The two subscales, namely positive and negative affect, measure affective states. The Positive Affect Scale (PAS) assessed to what extent an individual feels alert, enthusiastic, and active. One-word items were interested, excited, strong, alert, inspired, determined, enthusiastic, proud, attentive, and active. In contrast, the Negative Affect Scale (NAS) measured the amount of distress and encompasses the items ashamed, distressed, irritable, upset, guilty, scared, hostile, nervous, and afraid. In addition, the last item "jittery" was replaced by "regretful" in the present study, due to better applicability to the study. The scale consists of ten items for each subscale, which are measured on a 5-point Likert-scale, verbally anchored by 1 = very slightly/ not at all, 2 = a little, 3 = moderately, 4 = quite a bit and 5 = extremely. The version used in this study measured the at-the-moment affective states of participants. For each subscale, a total score was obtained by adding the item scores. Therefore, the scores range from 10 to 50 points for each subscale, where lower scores indicate a low level of positive or negative affect and vice versa for higher scores (Watson et al., 1988).

In general, the reliability and validity were found to be good for the in-the-moment measures. The Positive and Negative Affect scale had a Cronbach's alpha coefficient of .89 and .85 respectively (Watson et al., 1988). Furthermore, the subscales showed excellent factorial

validity with .95 for the Positive Affect Scale and .91 for the Negative Affect scale for in-the-moment measures with a two-factor model (Watson et al., 1988). In this study, Cronbach's alpha was .808 and .548 for the Positive Affect Scale for the pre-test and post-test respectively. For the Negative Affect Scale, the Cronbach's Alpha were .904 and .887 for the pre-test and post-test respectively. These measures correspond to excellent and good internal reliability respectively (George & Mallery, 1999).

Identity scale. In order to measure the extent to which individuals identify with their automatically generated autobiography, two single-item measures of identification were used. The first one was the single-item measure of social identification by Postmes, Haslam, and Jans (2013). The original item ("I identify with my group or category.") was reworded to fit the purpose of the study ("I identify with the generated autobiography."). This item is thought to measure especially the inner feelings of identification and the extent to which individuals found their current identity in their automatically generated autobiography. The item is measured on a 7-point scale with 1 = "fully disagree" to 7 = "fully agree", with higher scores indicating a higher social identification (Postmes et al., 2013). The normative score for the single-item measure of social identification is 3.5 (Postmes et al., 2013).

Additionally, an item from the dimension *Autonomy* from the Needs-Satisfactions questionnaire was used (Sheldon, Elliot, Kim, & Kasser, 2001). The original scale measures need-satisfactions in ten dimensions. The item used in this study is derived from the dimension *Autonomy*, which is defined as "feeling like you are the cause of your own actions rather than feeling that external forces or pressures are the cause of your actions" (Sheldon et al., 2001, p. 339). Therefore, it is relevant to the current study because it measures the extent to which an individual can be him or herself in contrast to succumbing to external pressures. Out of the three items which fall under the dimension of Autonomy, only the last one was selected for this study due to its high relevance. The original item ("During the event I felt that my choices expressed my true self.") was altered to fit the setting of the study ("While reviewing the automatically generated autobiography, I felt that it expressed my true self."). This item is thought to measure specifically the extent to which the posts are representative of the individual's current identity and, thus, add to and intertwine with the single-item measure of social identification. Furthermore, the item was measured using a 7-point scale with 1 = "fully disagree" to 7 = "fully agree", with higher scores indicating a higher identification. The normative score for the Autonomy scale of the Needs-Satisfaction questionnaire is 3.98 (Sheldon et al., 2001).

In order to analyse the identity measures, the mean scores of the combined two items of the identity scale were calculated for each participant, resulting in one continuous score ranging from 1 to 7, where a higher scores indicate a higher identification with the online autobiography.

Procedure

The study took place from 9th April to 2nd May 2019. If participants agreed to take part in this study, a time and place were agreed upon to meet and conduct the study. Furthermore, participants met individually with the researcher. Upon arrival, the participants were briefed about the purpose of the study and were given a short description of the procedure. Participants were assured that even though the website is designed to collect social media posts in a to-be-printed book, they would not have to pay anything, but rather the book could be previewed online. After this, the written informed consent, which also explained the use of data, could be signed by the participants (Appendix B). Subsequently, participants were asked to fill in an online questionnaire as a baseline-test. In addition to being asked about descriptives, such as age and gender, they were asked about their current emotions with an adapted version of the PANAS.

Afterwards, the participants were instructed to sign into *MySocialBook* with either their Instagram or Facebook account and with the help of the application, an automated autobiography was created. Figure 1 shows an example of an automatically generated autobiography created by the application using Instagram content. Participants could take as much time as they wanted to review their generated autobiography. After having reviewed the content of the curated autobiography, participants were asked to complete a second online questionnaire which measures the feelings that they have towards it, using the PANAS, and the extent to which they identify with their autobiography, using a two-item measure. Subsequently, participants were debriefed and thanked for their participation.

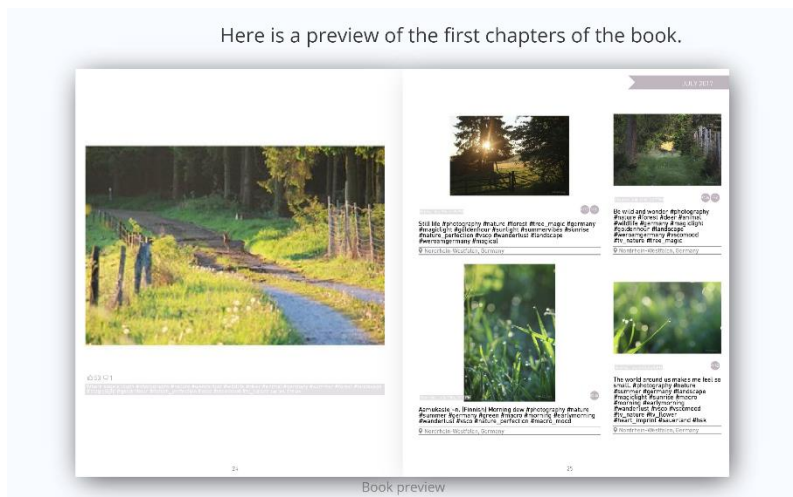


Figure 1. Example of a page in *MySocialBook.com* using Instagram.

Data analysis

The statistical analyses were conducted using the statistical software IBM SPSS Statistics (25.0). Firstly, to answer the first and second research questions, namely whether there exists a difference in emotions between pre- and post-test and whether there exists a difference in affect between the two conditions (Facebook vs Instagram), the respective variables were analysed. Therefore, a mixed-design ANOVA was conducted with time (pre-test, post-test) as a within-subjects factor and social media platform (Facebook, Instagram) as between-subjects factor and the Positive Affect Scale (PAS) as the dependent variable. Secondly, a mixed ANOVA was conducted with time (pre-measurement, post-measurement) as a within-subjects factor and social media platform (Facebook, Instagram) as between-subjects factor and the Negative Affect Scale (NAS) as the dependent variable. The assumptions of a normal distribution and homogeneity were tested beforehand. The assumption of normality was violated for the Facebook condition for the pre-test of the PAS and the post-test of the NAS. Moreover, the assumption of normality was violated for the pre-test of the PAS in the Instagram condition. No measures were taken, as simulation studies showed that mixed ANOVAs are relatively robust against violations of normality (Glass, Peckham, & Sanders, 1972). Furthermore, there was homogeneity of the error variances, as assessed by Levene's test ($p > .05$). Significant effects of the mixed ANOVA were further tested using a two-tailed paired-sample t-test to establish the nature of the difference (Payne, 2013)

Afterwards, the third research question, namely whether there exists a difference in the extent people identify with the automatically generated autobiography, was answered using a two-tailed independent samples t-test. A significance level of $\alpha < .05$ was used for all analyses.

Results

Differences in positive and negative emotions between Facebook and Instagram, and pre- and post-test

A mixed ANOVA showed that there was a significant main effect of time on PAS-scores [$F(1,22) = 13.95, p < .001$]. PAS-scores were higher at post-test ($M = 33.17, SD = 4.23$) compared to the pre-test ($M = 28.42; SD = 6.16$). This effect shows that if the condition is ignored, positive emotions were higher at post-test than at pre-test. There was no significant main effect of time on NAS-scores [$F(1,22) = .52, p = .479$]. This indicates that scores of the NAS did not differ significantly at pre- and post-test.

There was no significant main effect of PAS-scores for the social media platform used by participants [$F(1,22) = 0.4, p = .052$], indicating that PAS-scores were similar for Facebook and Instagram users. Furthermore, no significant main effects for social media platform were found for NAS-scores [$F(1,22) = 1, p = .327$] or time [$F(1,22) = .52, p = .479$]. This non-significant main effect for the social media platform used by participants, indicates that affect-scores were similar for Facebook and Instagram users.

No significant interaction effect for time of measurement and social media platform was found for neither PAS-scores [$F(1,22) = .07, p = .796$] nor NAS-scores [$F(1,22) = .01, p = .926$]. This indicates that there exists no difference in changes in emotions over time between social media platforms.

Level of identification does not differ between conditions

No significant differences were found in the extent to which Facebook ($M = 4.33, SD = 1.25$) and Instagram ($M = 5.13, SD = 1.09$) users identify with their automatically generated autobiography [$t(22) = -1.65, p = .401$].

Discussion

Overview of findings

The aim of this study was to explore the emotions and extent of identification regarding an automatically generated autobiography based on social media. More specifically, the difference between Facebook and Instagram was studied. The findings of this study suggest that positive emotions are increased by reviewing one's automatically generated autobiography, however, no effect was found for negative emotions. Furthermore, it does not seem to matter whether the autobiography was created using Facebook or Instagram. The extent of identification with the automatically generated autobiography did not differ between the two social media platforms. Nevertheless, the level of identification was slightly above average.

Firstly, it was found that participant's level of positive emotions was higher at post-measurement. Consequently, the reviewing of an automatically generated autobiography led to more positive emotions in this study. This finding is in line with research by Lin and Utz (2015), which showed that people experience more positive emotions after browsing through Facebook. Similarly, Krasnova et al. (2013) found that many people described their Facebook experience as "joyful and fun" (p. 4). It should be noted, however, that these studies explored the emotional response on browsing Facebook, compared to the act of reminiscence on one's own posts, which was part of this study. One reason for these findings might be that people who review their automatically generated autobiographies are reminded of the good experiences they had. This explanation would be in line with Bazarova, Choi, Sosik, Cosley, and Whitlock (2015), who found that people mainly post positive content on Facebook. Alternatively, people might be reminded of the difficulties that they have already overcome in the past, which are likely to make them feel proud of their achievements.

In contrast to these findings, several studies also noted the negative effect of Facebook on emotions, for instance, by showing elevated envy, jealousy, regret or guilt (Krasnova et al., 2013; Muise, Christofides, & Desmarais, 2009; Y. Wang et al., 2011). Compared to the findings by Bazarova et al. (2015), this shows mixed results related to the emotional effect of social media and supports the notion that more research has to be done to explore which factors influence the emotional response to reminiscent acts based on social media. For instance, it was found that personality influences the level of regret for posting inappropriate content, with more conscientious, emotionally stable and agreeable but less extraverted social-media users reporting greater levels of regret (Moore & McElroy, 2012).

One reason for the fact that no difference was found for emotions or level of identification between the two social media platforms, Facebook and Instagram, might be that the differences between the two platforms do not have such a big influence on the type of content that is posted. For instance, Facebook is usually used to keep in touch with old friends, who are often known from the offline world (Joinson, 2008; Ross et al., 2009). In contrast, a strong motivator to use Instagram is to cumulate as many followers as possible and these followers are often individuals who are not known outside the online world (Lee et al., 2015; Marwick, 2015). Nevertheless, it seems as if these differences in post type and audience do not have a significant influence on the emotions regarding or the level of identification with an automatically generated autobiography in this study.

Furthermore, the results of the current study concerning the fact that no difference was found between the pre- and post-measurement in negative emotions might be due to the nature

of the study. The theme of the study could have led to unconscious anxiety and worry about the type of posts they had posted in the past and if these were embarrassing for them. This might have led to a negative mindset before and an elevated score on the Negative Affect Scale on the pre-test when compared to normative scores for “In the moment” measures found by Watson et al. (1988). Consequently, these worries might not have been confirmed during the study, leading to less of an increase in negative emotions and a parallel increase in positive emotions afterwards. A similar effect was described by Thomas and Briggs (2016b), who reported that participants who were initially doubtful about printing their social media content in a book, were often very positively surprised and enjoyed looking at their curated book.

Moreover, the fact that identification with the automatically generated autobiography was only slightly above an average might be explained by the fact that people often do not post their whole lives on social media. Participants might have not fully identified with their automatically generated autobiography because they do not present their whole identity online, as shown in previous research (Marwick, 2013). One possible explanation might be, that the online identity is merely another dimension to a person’s whole identity. According to the Model of Multiple Dimensions of Identity (Jones & McEwen, 2000) a person has one core identity, with intersecting circles of relevant identity dimensions and contextual influences. Traditionally, these dimensions and influences include, for example, family background, race, or religion (Jones & McEwen, 2000). However, with the increasing influence of social media, it might be possible that an online identity is just another dimension of these intersecting circles and not a distinct dimension as suggested by Suler (2005).

Another possible factor that could influence the emotional reaction to one’s social media might be the extent to which individuals identify with their social media profiles. Jackson and Luchner (2018) found that people who were presenting a false self, by, for instance, posting information about themselves that is not true, reacted with greater negative emotions to feedback to their Instagram profile. A similar mechanism might also be true for the reviewing of one’s own social media in general, meaning that individuals who are their true self online and identify to a great extent with their profile, experience more positive emotions than individual’s who identify less with their social media profile. Thus, these findings might also suggest a mediating relationship of identity between reviewing one’s own social media and the experienced emotions.

Strengths and limitations

The study is, so far, the first quantitative study which researched whether the reviewing of an automatically generated autobiography could increase positive emotions. The effect of

reviewing social media has been researched mainly with a focus on negative emotions which are elicited while reviewing one's own social media profile (Y. Wang et al., 2011; Zhao et al., 2013). Nonetheless, this study showed that social media can also have a positive influence on emotions, a finding that is supported by the experiences reported by Thomas and Briggs (2016b). In the study, participants created a book based on their Facebook profile, using the same website (*MySocialBook.com*) and were asked to reminisce about it. Most of the participants enjoyed the process of reviewing their social media profile (Thomas & Briggs, 2016b).

Additionally, the fact that the participants in this study collected at least 68 posts on their social media sites might be seen an advantage since it indicates that all of them are rather active on Facebook or Instagram. Due to the fact that participants in this study had a certain amount of posts to reflect and reminisce on, compared to people who only reminisce based on ten or fifteen post in a similar time span, the results might be more convincing. However, the time span was not limited in this study, and, consequently, a better comparability could have been achieved by setting a limited timeframe for the posts, for instance limiting it to five years, or by asking participants about the number of posts in the last year, to be better able to assess the participant's activity on social media.

A further limitation is, that there exists a selection bias in the recruitment of participants, due to the large amount of posts (at least 68) that were needed to cumulate a book on the website. This might mean that the people in this sample might differ to the general population in the amount of posts they have collected on social media sites, such as Facebook or Instagram. Several studies have found a moderate relationship between personality and the frequency of social media use (Correa, Hinsley, & de Zúñiga, 2010; Gil de Zúñiga, Diehl, Huber, & Liu, 2017; Hughes, Rowe, Batey, & Lee, 2012). In a study including over 21,000 participants from 20 countries, Gil de Zúñiga et al. (2017) found that conscientiousness, extraversion, agreeableness, and openness were positively related with the frequency of social media use, while emotional stability was negatively associated with it. Therefore, the people who post frequently might differ in their personality from those who post less. As a consequence, one might argue that their emotional reaction to reviewing an automated autobiography, as well as the extent to which they identify with their automatically generated autobiography might differ too. Future research could further investigate to what extent the findings in this study regarding the change in emotions and the extent of identification with an automatically generated autobiography could also be applied to people who have fewer posts on social media.

Additionally, the two conditions (Facebook and Instagram) were not equal. Specifically, females were overrepresented in both groups, with 75% of all participants being female. This might suggest that there exists a gender difference in the use of social media platforms like Facebook and Instagram. In line with this, Mendelson and Papacharissi (2010) found in a sample of US-students, that females post more frequently on Facebook than males.

Moreover, the study design could have been improved by combining the quantitative research method with a qualitative design. More specifically, the questionnaires could have been supplemented with interviews from the participants about their emotions and identification with their autobiography. By including interviews, it would have been possible to find out about specific emotions that were sparked while reviewing the automatically generated autobiography in general, possibly adding specific emotions that were not included in the PANAS. Furthermore, participants could have elaborated on specific posts and moments which elicited specific emotions. In this way, the specific content which elicits positive or negative emotions might be determined. A similar design was employed by Thomas and Briggs (2016b), who reviewed an automatically generated autobiography together with participants and assessed their responses to evaluate the reminiscent value of social media, for example, for reminiscence therapy. Additionally, by including interviews it might have been easier to determine to what extent participants identify with their autobiography and whether they identify with some post more than with others. Therefore, more differentiation would have been possible.

Another way of improving the study design might be by including a control condition, which would help as another manipulation check to assess to what extent the act of reminiscing based on social media and the traditional way to reminiscence differ. Zhao and E. Lindley (2014) showed that social media sites are usually not overtly viewed as archives for reminiscence. However, they can complement traditional file storages, such as mobile phones or photo albums as the content on social media is more selective (Zhao & Lindley, 2014). To conclude, adding a control condition could have shed more light into the difference between traditional reminiscence and reminiscence based on social media.

Lastly, it should be noted that the reliability was insufficient for the post-test of the Positive-Affect Scale of the PANAS. The measure of .548 indicates poor internal reliability (George & Mallery, 1999). Consequently, the results should be interpreted with caution.

Practical implications

The present study shed some light on the reminiscent value of social media. Reminiscence is important at all ages, as it supports people in giving meaning to their life (Thomas & Briggs, 2016b). Furthermore, reminiscence can be used in therapy to help a person

to overcome, deal and accept past conflicts (Woods, O'Philbin, Farrell, Spector, & Orrell, 2018). In reminiscence therapy, the prompts for reminiscence are usually photographs or pictures and even music from the past (Woods et al., 2018). However, it might also be possible to regularly use social media and other digital prompts in reminiscence therapy as well, if the (long-term) relationship between reminiscence-cues using social media and wellbeing are researched in more depth.

Future research

In the present study, it was shown that the social media site, namely Facebook or Instagram, did not have any influence on the emotions or level of identification that was reported by participants. Consequently, the question arises, whether this similarity in emotions and identification might be due to similar content on both sites. Future research might do qualitative studies to see whether people create similar posts on Facebook and Instagram, despite the seeming differences in post type and audience.

As mentioned above, the findings in the present study might suggest a link between the level of identification with one's own social media profile and the emotions that are experienced. It was suggested that identification might act as a moderating variable on the experienced emotions during reminiscence. This was based on the results of a study by Jackson and Luchner (2018) which showed that presenting a false self, lead to more negative emotions. Consequently, future research might examine the possible link between emotions and the level of identification during reminiscence based on social media posts.

Another possible direction for future research might be to explore how many friends and followers participants have on Facebook and Instagram and if there exists a difference in kind of followers. More specifically, future research might focus on the difference between friends or followers who are known from the offline world, and the ones who are only known from the online world, and post content to examine in how far friends and followers have an influence on post content. In this sense, future research might shine more light on the influence of (perceived) audience on post content.

Conclusion.

To sum it all up, this study intended to compare the social media sites Facebook and Instagram regarding the emotions and level of identification that were elicited by an automatically generated autobiography. The findings showed that the social media platform did not influence the emotions regarding and identification with an automatically generated autobiography. However, the study added to existing research by showing that the reviewing of one's own social media evokes significantly more positive emotions than negative ones.

Thus, prompting further research into the field of social media as a tool for reminiscence, for example, in the context of every-day reminiscence or reminiscence therapy, as well as the accompanying emotions, and the possible link between emotions and identification could be illuminating.

References

- Bazarova, N. N., Choi, Y. H., Sosik, V. S., Cosley, D., & Whitlock, J. (2015). *Social Sharing of Emotions on Facebook: Channel Differences, Satisfaction, and Replies*. Paper presented at the Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing, Vancouver, BC, Canada.
- Bennett, E., & Folley, S. (2014). A tale of two doctoral students: social media tools and hybridised identities. *Research in Learning Technology*, 22, 23791.
- Berk, L. E. (2013). Self and Social Understanding. In *Child Development* (Vol. 9, pp. 446-483). New Jersey: Pearson Education.
- Bluck, S., & Levine, L. J. (1998). Reminiscence as autobiographical memory: a catalyst for reminiscence theory development. *Ageing and Society*, 18(2), 185-208.
- boyd, d. m., & Ellison, N. B. (2007). Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230. doi:10.1111/j.1083-6101.2007.00393.x
- Butler, R. N. (1963). The Life Review: An Interpretation of Reminiscence in the Aged. *Psychiatry*, 26(1), 65-76. doi:10.1080/00332747.1963.11023339
- Camacho, M., Minelli, J., & Grosseck, G. (2012). Self and Identity: Raising Undergraduate Students' Awareness on Their Digital Footprints. *Procedia - Social and Behavioral Sciences*, 46, 3176-3181. doi:doi.org/10.1016/j.sbspro.2012.06.032
- Cappeliez, P., Guindon, M., & Robitaille, A. (2008). Functions of reminiscence and emotional regulation among older adults. *Journal of Aging Studies*, 22(3), 266-272. doi:doi.org/10.1016/j.jaging.2007.06.003
- Central Bureau of Statistics (2014). Most young people online with smartphone. Retrieved on 23.02.2019 from <https://www.cbs.nl/en-gb/news/2014/22/most-young-people-online-with-smartphone>
- Correa, T., Hinsley, A. W., & de Zúñiga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use1. *Computers in Human Behavior*, 26(2), 247-253. doi:doi.org/10.1016/j.chb.2009.09.003
- Curtis, T. (2015). At Arm's Length: The Selfie, Public Personae, and Instagram Use in Young Black Women and Adolescents. In *New Media in Black Women's Autobiography: Intrepid Embodiment and Narrative Innovation* (pp. 181-196). New York: Palgrave Macmillan US.
- Dunne, Á., Lawlor, M. A., & Rowley, J. (2010). Young people's use of online social networking sites – a uses and gratifications perspective. *Journal of Research in Interactive Marketing*, 4(1), 46-58. doi:doi:10.1108/17505931011033551
- Facebook Company Info. (2019). Retrieved March 2, 2019, from <https://newsroom.fb.com/company-info/>
- Federal Office of Statistics (2018). IT-Nutzung. Retrieved on 23.02.2019 from https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/EinkommenKonsumLebensbedingungen/ITNutzung/Tabellen/Internetaktivitaeten_Personen_Alter_IKT.html
- Fivush, R., Habermas, T., Waters, T. E. A., & Zaman, W. (2011). The making of autobiographical memory: Intersections of culture, narratives and identity. *International Journal of Psychology*, 46(5), 321-345. doi:10.1080/00207594.2011.596541
- George, D., & Mallery, P. (1999). *SPSS® for Windows® step by step: A simple guide and reference*. Needham Heights, MA, US: Allyn & Bacon.
- Gil de Zúñiga, H., Diehl, T., Huber, B., & Liu, J. (2017). Personality Traits and Social Media Use in 20 Countries: How Personality Relates to Frequency of Social Media Use, Social Media News Use, and Social Media Use for Social Interaction. *Cyberpsychology, behavior and social networking*, 20(9), 540-552.

- Glass, G. V., Peckham, P. D., & Sanders, J. R. (1972). Consequences of Failure to Meet Assumptions Underlying the Fixed Effects Analyses of Variance and Covariance. *Review of Educational Research*, 42(3), 237-288. doi:10.3102/00346543042003237
- Goffman, E. (2002). The presentation of self in everyday life. 1959. *Garden City, NY*, 259.
- Haight, B. K., & Webster, J. D. (1995). *The art and science of reminiscing: Theory, research, methods, and applications*: Taylor & Francis.
- Hughes, D. J., Rowe, M., Batey, M., & Lee, A. (2012). A tale of two sites: Twitter vs. Facebook and the personality predictors of social media usage. *Computers in Human Behavior*, 28(2), 561-569. doi:doi.org/10.1016/j.chb.2011.11.001
- Instagram Press (2018, August 28). New Tools to Help Keep Instagram Safe. Retrieved from <https://instagram-press.com/blog/2018/08/28/new-tools-to-help-keep-instagram-safe/>
- Jackson, C. A., & Luchner, A. F. (2018). Self-presentation mediates the relationship between Self-criticism and emotional response to Instagram feedback. *Personality and Individual Differences*, 133, 1-6. doi:doi.org/10.1016/j.paid.2017.04.052
- Joinson, A. N. (2008). *Looking at, looking up or keeping up with people?: motives and use of facebook*. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Florence, Italy.
- Jones, S. R., & McEwen, M. K. (2000). A conceptual model of multiple dimensions of identity. *Journal of college student development*, 41(4), 405-414.
- Krasnova, H., Wenninger, H., Widjaja, T., & Buxmann, P. (2013). *Envy on Facebook: A hidden threat to users' life satisfaction?* Paper presented at the Proceedings of the 11th International Conference on Wirtschaftsinformatik (WI2013), Universität Leipzig, Germany.
- Lee, E., Lee, J.-A., Moon, J. H., & Sung, Y. (2015). Pictures Speak Louder than Words: Motivations for Using Instagram. *Cyberpsychology, Behavior, and Social Networking*, 18(9), 552-556. doi:10.1089/cyber.2015.0157
- 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. doi:doi.org/10.1016/j.chb.2015.04.064
- Marwick. (2013). Online identity. In *A companion to new media dynamics* (pp. 355-364).
- Marwick. (2015). Instafame: Luxury selfies in the attention economy. *Public Culture*, 27(1 (75)), 137-160.
- Mendelson, A. L., & Papacharissi, Z. (2010). Look at us: Collective narcissism in college student Facebook photo galleries. *The networked self: Identity, community and culture on social network sites*, 1974, 1-37.
- Moore, K., & McElroy, J. C. (2012). The influence of personality on Facebook usage, wall postings, and regret. *Computers in Human Behavior*, 28(1), 267-274. doi:doi.org/10.1016/j.chb.2011.09.009
- Muise, A., Christofides, E., & Desmarais, S. (2009). More Information than You Ever Wanted: Does Facebook Bring Out the Green-Eyed Monster of Jealousy? *CyberPsychology & Behavior*, 12(4), 441-444. doi:10.1089/cpb.2008.0263
- Nelson, K., & Fivush, R. (2004). The Emergence of Autobiographical Memory: A Social Cultural Developmental Theory. *Psychological review*, 111(2), 486-511. doi:10.1037/0033-295X.111.2.486
- Oldmeadow, J. A., Quinn, S., & Kowert, R. (2013). Attachment style, social skills, and Facebook use amongst adults. *Computers in Human Behavior*, 29(3), 1142-1149. doi:doi.org/10.1016/j.chb.2012.10.006
- Parambouskis, O., Skues, J., & Wise, L. (2016). An exploratory study of the relationships between narcissism, self-esteem and Instagram use. *Social Networking*, 5(02), 82.

- Payne, J. (2013). Mixed ANOVAs. Retrieved June 2, 2019, from <https://www.jeunesepayne.com/mixed-anovas>
- Postmes, T., Haslam, S. A., & Jans, L. (2013). A single-item measure of social identification: Reliability, validity, and utility. *British Journal of Social Psychology, 52*(4), 597-617. doi:doi:10.1111/bjso.12006
- Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the Uses and Gratifications Theory to Exploring Friend-Networking Sites. *CyberPsychology & Behavior, 11*(2), 169-174. doi:10.1089/cpb.2007.0056
- Reese, E., Yan, C., Jack, F., & Hayne, H. (2010). Emerging Identities: Narrative and Self from Early Childhood to Early Adolescence. In K. C. McLean & M. Pasupathi (Eds.), *Narrative Development in Adolescence: Creating the Storied Self* (pp. 23-43). Boston, MA: Springer US.
- Ross, C., Orr, E. S., Sisc, M., Arseneault, J. M., Simmering, M. G., & Orr, R. R. (2009). Personality and motivations associated with Facebook use. *Computers in Human Behavior, 25*(2), 578-586. doi:doi.org/10.1016/j.chb.2008.12.024
- Ruth, J.-E., & Vilkkko, A. (1996). Chapter 10 - Emotion in the Construction of Autobiography. In C. Magai & S. H. McFadden (Eds.), *Handbook of Emotion, Adult Development, and Aging* (pp. 167-181). San Diego: Academic Press.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76*(3), 482-497. doi:10.1037/0022-3514.76.3.482
- Sheldon, K. M., Elliot, A. J., Kim, Y., & Kasser, T. (2001). What is satisfying about satisfying events? Testing 10 candidate psychological needs. *Journal of Personality and Social Psychology, 80*(2), 325-339. doi:10.1037/0022-3514.80.2.325
- Suler, J. (2005). The online disinhibition effect. *International Journal of Applied Psychoanalytic Studies, 2*(2), 184-188. doi:doi:10.1002/aps.42
- Thomas, L., & Briggs, P. (2016a). Assessing the value of brief automated biographies. *Personal and Ubiquitous Computing, 20*(1), 37-49. doi:10.1007/s00779-015-0896-2
- Thomas, L., & Briggs, P. (2016b). Reminiscence through the Lens of Social Media. *Frontiers in Psychology, 7*(870). doi:10.3389/fpsyg.2016.00870
- Upbin, B. (2012, September 26). Facebook Buys Instagram For \$1 Billion. Smart Arbitrage. Retrieved March 2, 2019, from <https://www.forbes.com/sites/bruceupbin/2012/04/09/facebook-buys-instagram-for-1-billion-wheres-the-revenue/#6f42eeb14b8a>
- Wang, Q., Lee, D., & Hou, Y. (2017). Externalising the autobiographical self: sharing personal memories online facilitated memory retention. *Memory, 25*(6), 772-776. doi:10.1080/09658211.2016.1221115
- Wang, Y., Norcie, G., Komanduri, S., Acquisti, A., Leon, P. G., & Cranor, L. F. (2011). "I regretted the minute I pressed share": a qualitative study of regrets on Facebook. Paper presented at the Proceedings of the Seventh Symposium on Usable Privacy and Security, Pittsburgh, Pennsylvania.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Williams, H. L., Conway, M. A., & Cohen, G. (2008). Autobiographical memory. *Memory in the real world, 3*, 21-90.
- Wilson, A., & Ross, M. (2003). The identity function of autobiographical memory: Time is on our side. *Memory, 11*(2), 137-149. doi:10.1080/741938210

- Wong, P. T., & Watt, L. M. (1991). What types of reminiscence are associated with successful aging? *Psychology and Aging*, 6(2), 272-279. doi:10.1037/0882-7974.6.2.272
- Woods, B., O'Philbin, L., Farrell, E. M., Spector, A. E., & Orrell, M. (2018). Reminiscence therapy for dementia. *Cochrane Database of Systematic Reviews*(3). doi:10.1002/14651858.CD001120.pub3
- Woodward, K. (1997). *Identity and difference* (Vol. 3). London: Sage.
- Zhao, X., & E. Lindley, S. (2014). *Curation through Use: Understanding the Personal Value of Social Media*.
- Zhao, X., Salehi, N., Naranjit, S., Alwaalan, S., Volda, S., & Cosley, D. (2013). *The many faces of facebook: experiencing social media as performance, exhibition, and personal archive*. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Paris, France.

Appendix A - Questionnaires

PANAS

you feel this way right now, that is, at the present moment (5-point-Likert-scale)

interested	irritable
distressed	alert
excited	ashamed
upset	inspired
strong	nervous
guilty	determined
scared	attentive
hostile	jittery → regretful
enthusiastic	active
proud	afraid

From Watson et al. (1988)

Identity measures

1. While reviewing the automatically generated autobiography, I felt that it expressed my true self.
From Sheldon et al. (2001)
2. I identify with the generated autobiography.
From Postmes et al. (2013)

Appendix B – Informed consent

Informed Consent

Purpose and nature of research:

This research aims to compare Facebook and Instagram in regard to the extent individuals identify with an automatically generated autobiography based on their social media posts and the experienced emotions. Therefore, you are asked to first answer a short questionnaire. Afterwards, you sign in with your Facebook or Instagram account into the app *MySocialBook.com* and review the automatically generated autobiography. You can take as much time as you like to review your automatically generated autobiography. Subsequently, you are asked to fill in an online questionnaire related to your level of identification with your autobiography and your feelings while watching it. The whole experiment lasts about 45 minutes. All of your data from the questionnaire will be stored anonymously and the data stored in the app will be deleted immediately after the experiment.

'I thereby declare that I have been informed in a manner which is clear to me about the nature and method of the research as described in the aforementioned. My questions have been answered to my satisfaction. I agree of my own free will to participate in this research. I reserve the right to withdraw this consent without the need to give any reason and I am aware that I may withdraw from the experiment at any time. If my research results are to be used in scientific publications or made public in any other manner, then they will be made completely anonymous. My personal data will not be disclosed to third parties without my express permission. If I request further information about the research, now or in the future, I may contact D. Klink (d.klink@student.utwente.nl).

If you have any complaints about this research, please direct them to the secretary of the Ethics Committee of the Faculty of Behavioural Sciences at the University of Twente, Drs. L. Kamphuis-Blikman P.O. Box 217, 7500 AE Enschede (NL), telephone: +31 (0)53 489 3399; email: l.j.m.blikman@utwente.nl).

Signed in duplicate:

.....
Name subject Signature

I have provided explanatory notes about the research. I declare myself willing to answer to the best of my ability any questions which may still arise about the research.'

.....
Name researcher Signature