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Sex, Blogs, and Baring Your Soul: Factors Influencing UK Blogging Strategies

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There is an abundance of evidence to suggest that online behavior differs from behaviors in the offline world, and that there are a number of important factors which may affect the communication strategies of people within an online space. This article examines some of these, namely, whether the sex, age, and identifiability of blog authors, as well as the genre of communication, affect communication strategies. Findings suggest that the level of identifiability of the blog author has a limited effect upon their communication strategies. However, sex appeared to influence online behavior in so far as men were more likely to swear and attack others in their blogs. Genre had an important influence on disclosure with more self-disclosure taking place in the diary genre (i.e., blogs in which people talk about their own lives) comparative to the filter genre (i.e., blogs in which people talk about events external to their lives). Age affected both self-disclosure and language use. For example, younger bloggers tended to use more swearing, express more negative emotions and disclose more personal information about others. These findings suggest that age, sex, genre, and identifiability form a cluster of variables that influence the language style and self-disclosure patterns of bloggers; however, the level of identifiability of the blogger may be less important in this respect. Implications of these findings are discussed.

Introduction

The Internet can no longer be seen as a purely technological innovation. Rather it has generated, via computer-mediated communication (CMC), a psychological phenomenon with important implications for both online and offline life. One pertinent case in point relates to the manner in which the Internet offers its users increased flexibility in terms of self-presentation and communication opportunities. Moreover, simply being online is said to have a bearing on how much personal information individuals disclose as well as the language that they use (Ben-Ze'ev, 2003; Joinson & Paine, 2007; McKenna & Bargh, 2000). However, there are also likely to be a number of other important factors that differentiate online users within a specific online space that also exert influence on their communication strategies. The current study examines a number of these plausible candidates in UK blog posts. More specifically, this investigation considers whether the age and sex of the user, the level of anonymity or identifiability of the online individual, and the genre of communication influence the communication strategies of bloggers.

Comparing Self-Disclosure and Language Use in Online and Offline Contexts

In the online world, individuals can choose which particular aspects of their identity that they wish to promote and they may even embellish the more positive facets of their personality to other online users in order to garner more favorable impressions (Caplan, 2003). Furthermore, CMC may surpass face-to-face interaction because users have increased control over content and may therefore be selective about how they present themselves to others, ensuring an optimized presentation of the self. In this sense, CMC may become "hyperpersonal" (Walther, 1996, p. 5; Walther & Parks, 2002). Although this suggests a strategic element to online communication for many people, a number of theorists argue that the simple act of being online can also influence the manner in which we communicate with and relate to others. For example, although the disclosure of personal information to others in the offline world may be associated with increased vulnerability, this may be less true in online communication contexts (Ben-Ze'ev, 2003; Joinson & Paine, 2007). In other words, some people may feel more comfortable disclosing intimate and personal details to others while online and this may be because there is a reduced risk associated with this activity (McKenna & Bargh, 2000).

The notion that individuals express themselves rather differently online is a fairly well established phenomenon. Previous findings suggest that online communication tends to be more hostile and profanity-laced (e.g., Dubrovsky, Kiesler, & Sethna, 1991; Kiesler, Siegel, & McGuire, 1984; Kiesler, Zubrow & Moses, 1985; Siegel,

Dubrovsky, Kiesler, & McGuire, 1986) and that strangers disclose more freely via CMC than they do face-to-face (Bargh, McKenna, & Fitzsimons, 2002; Coleman, Paternite, & Sherman, 1999; Joinson, 2001; Tidwell & Walther, 2002). Moreover, in a review of the CMC literature, Derks, Fischer, and Bos (2008) concluded that emotional communication occurs more overtly and regularly online.

Although the findings cited above imply that for many individuals there is a disassociation between offline and online conduct, the artificiality of some of the tasks may be an issue for consideration. For instance, simple "getting to know you" style tasks have been employed by some researchers in the field (e.g., Bargh et al., 2002; Tidwell & Walther, 2002). Although zero-acquaintance interactions do take place in the online world, the circumstances are likely to be very different than those presented in these tasks. From what we know of personality as a predictor of Internet consumption (see Orchard & Fullwood, 2010), the process is likely to be more self-selecting. In other words, individuals choose a particular type of online activity to fulfil very personal needs. It could therefore be argued that types and extent of self-disclosure and the style of language used are intricately linked with the intended purpose of the online interaction. If participants do not choose their mode of engagement, motivational differences for selecting particular media options cannot be discriminated.

Furthermore, particular types of individuals are likely to be attracted to different user options online (see Orchard & Fullwood, 2010) and therefore this may also have a bearing on communication strategies. As an additional line of enquiry, it may therefore be fruitful to consider the individual differences in online users and how these may affect communication strategies within various online spaces.

Sex and Age Differences in Online Communication Strategies

The idea that the medium may not be the primary determinant of communication strategies in the online world is evidenced by the abundance of studies that indicate sex and age differences in self-disclosure and language use within various online settings. For instance, Hampe (2007) discovered a significant negative correlation between age and participants' self-reported disclosure of a sexual nature in online communication contexts. Nosko, Wood, and Molema (2010) found that as age increased the level of disclosure of personal information in Facebook profiles decreased. Goodstein (2007) suggests that the younger generation are more comfortable with disclosing very personal information online. Moreover, this may be because they see more benefits to self-disclosure, perhaps for relationship maintenance or impression management purposes (Fullwood, Sheehan, & Nicholls, 2009; Youn, 2005).

In terms of language use, Fullwood et al. (2009) noted that bloggers older than 50 were more likely to use their blogs as an emotional outlet and to adopt a negative tone comparative to younger bloggers. In contrast, Mazur and Kozarian (2010) found that younger bloggers (aged 15 to 19 years) tend to construct their blogs with an emotional tone, perhaps because their blogs were often self-focused, discussing aspects of their day-to-day lives and their relationships. Furthermore, although they often presented themselves in their blogs in a positive light, they were markedly more negative when discussing their daily lives and personal experiences. However, this study only considered blogs by adolescents and young adults, and, therefore, it is difficult to decipher from this evidence alone whether or not younger bloggers write in a more emotional tone than older bloggers. Thelwall (2008) also noted that the pages of younger MySpace users (aged 16 to 19 years) contained more examples of swearing than the average profile, therefore suggesting that younger individuals may be more inclined to use profanity at least in some online spaces.

In terms of sex, Savicki (1996) noted more self-disclosing in female-dominated Internet discussion groups compared with those that were dominated by men. Nosko et al. (2010), however, found no significant sex differences in levels of disclosure in a social networking context. The authors conclude that males may feel less pressure to "conform to or adhere to strict social rules and male stereotypes for disclosure" (p. 412) in online communication contexts. However, we may also find that patterns of self-disclosure differ between various online spaces. Facebook and other social networking sites are considered to be anchored communication contexts. In other words, communication takes place primarily with people who are already known to the networker. If we compare this with an online context in which communication takes place principally with strangers, or in which the individual may chooses to remain anonymous, then patterns of disclosure may well be very different. Online communication contexts may also vary in terms of interactivity, synchronicity and bandwidth and all of these factors are likely to influence communication strategies.

There is also evidence to suggest that women communicate in a more emotionally expressive manner than men online. For example, Fox, Bukatko, Hallahan, and Crawford (2007) and Baron (2004) found that women used more emotionally expressive language in Instant Messenger conversations than men (e.g., increased emoticon use). Thelwall (2008) established that male MySpace profile owners from the United States use significantly more swear words than their female counterparts; however, this difference was not evident in United Kingdom MySpace pages.

Herring (1994) found the gender balance of online discussion groups to influence the prevailing communication style of the group. More specifically, groups that had more male contributors were characterised by coarser language use and a more typically argumentative discourse.

Furthermore, Herring (1996, p. 85) also acknowledged a "list effect" in online academic discussion lists. Contributors to lists that were dominated by females, irrespective of their sex, tended to adopt female language features. Whereas participants in male-dominated groups used male language features and this was regardless of their sex. This suggests that we may also be influenced by the communication strategies of others while online and further evidence to support this notion comes from Thomson, Murachver, and Green (2001). Specifically, they found that there was a tendency for individuals to take on the language style of their communication partner during e-mail correspondence, leading to the conclusion that gendered language is constructed during social interaction. The communication strategies that individuals employ will therefore not only be influenced by their age and sex but also by the context in which communication is taking place.

Genre and Online Communication Strategies

So far, the emerging pattern is that younger online users disclose more and use more emotionally expressive language. In terms of sex, although there are some inconsistencies, generally speaking women are more emotionally expressive and men use more aggressive and profanity laced language while online. However, it is also important to note the communication context (e.g., the sex of the conversational partner), as this is likely to also influence language use and patterns of self-disclosure. Taking this idea a little further, one may also consider the topic or genre of communication. Herring and Paolillo (2006) investigated language features in blogs, focusing specifically on differences between the sexes and two categories of subgenre. The two genre categories investigated were "diary" and "filter." Diary blogs were any that commented exclusively on the author's own life, whereas filter blogs were those that commented on events external to the author's life.

Their findings indicate that, irrespective of the author's sex, blogs that were classified as falling into the diary genre included more examples of female language features (e.g., personal pronouns). Blogs classified as filter, however, included more male language features (e.g., possessive pronouns) and this was regardless of sex. The authors therefore note that a blogger's prose may be directly influenced by the genre of communication. For instance, writing diaries has been customarily associated with women, whereas writing about external events (e.g., politics) may be more traditionally perceived as a masculine topic of communication. Therefore, bloggers are more likely to write in a style that is associated with the genre as opposed to their sex. Furthermore, previous evidence implies that men are more likely to write filter style blogs and women are more likely to write diary style blogs (Herring, Kouper, Scheidt, & Wright, 2004).

Further evidence for the effect of genre on communication strategies comes from Fullwood, Evans, and Morris (2011). In their study, they investigated language use in two distinct online genres on MySpace, namely, an interactive forum style genre and a noninteractive "about me" genre. Their findings indicate that MySpace users are more likely to communicate in a gender-typical fashion in a forum context. However, in the about me context, users were more likely to adopt language features that were typical of both of the sexes, therefore producing an effect of "linguistic androgyny." The authors cite Communication Accommodation Theory (CAT; Giles, Coupland, & Coupland, 1991) to help elucidate the findings. CAT suggests that individuals alter their style of communication to be more similar to those with whom they are communicating.

Moreover, this may be a strategic attempt to gain approval by minimizing perceived differences. Fullwood et al. (2011) take the theory one stage further by suggesting that in online communication contexts, linguistic styles may converge in two distinctive ways. In an about me context, there may be a pattern of *generic convergence*, whereby individuals adopt the communication strategies of both sexes to appeal to a wider range of potential communicators. However, in the forum context there may be a pattern of *specific convergence*, whereby individuals signal their agreement or similarity of disposition to other forum users by adopting a linguistic style that is in keeping with their co-communicator. Overall, the findings from both of these studies suggest that the genre of communication is likely to have an important effect on the manner in which people communicate online. Therefore, simply taking the sex and age of the online individual into account may be insufficient.

Anonymity (Identifiability) and Online Communication Strategies

Just as the role of sex, age, and genre have been debated in influencing communication strategies online, anonymity, or identifiability, has also been perceived to be an important factor in explaining self-disclosure and language use on the Internet. In many online environments, users have the option to remain anonymous or to

choose how much identifying information they wish to disclose. Being less identifiable may make some individuals feel more comfortable about disclosing personal or intimate information to others online (Joinson & Paine, 2007; McKenna & Bargh, 2000). Joinson (2001), for instance, found that visually anonymous participants (i.e., those who were not represented with a picture) disclosed more personal information than those who were not visually anonymous. Qian and Scott (2007), however, suggest that bloggers who are visually anonymous do not disclose more, rather bloggers who withhold identification information (i.e., their name) disclose more freely.

To the contrary, Okdie (2011) found that anonymous participants (i.e., those who did not include their name) were no more likely to self-disclose in their blogs than those participants who used a user ID. Joinson (2001) argues that increased self-disclosure in CMC is due to an interaction between anonymity (reduced public self-awareness) and increased private self-awareness (which concerns how one appears to others). However, if one can communicate with others in different cities or countries, a certain level of anonymity is afforded no matter how much personal information is divulged because the likelihood of meeting these individuals face-to-face is very slim.

Furthermore, anonymity is conceptually problematic in the online world as individuals have far more control over the amount and types of information they disclose about themselves. For instance, although the inclusion of a picture may be considered to be a nonanonymous context, if this picture is blurred, or the individual's face is disguised or difficult to see, then for all intents and purposes this person may as well be anonymous (Qian & Scott, 2007). For these reasons, it may be better not to view anonymity as being dichotomous (i.e., in terms of one either being anonymous or identifiable) but, rather, as existing on a continuum (Qian & Scott, 2007; Scott, 2004). In this sense, there are degrees of identifiability.

Study Aims and Expected Outcomes

The evidence presented so far would seem to suggest that there are a number of important factors that are likely to influence an individual's language use and levels of self-disclosure within a particular online space. The current study therefore aimed to investigate the impact of sex, age, genre, and identifiability on the communication strategies of bloggers. The investigators decided to study the blogosphere as opposed to a number of other potential online spaces for a number of key reasons. First, blog users have the option of deciding how much identifying information they give away about themselves (Herring, Scheidt, Bonus, & Wright, 2004). Unlike the anchored communication context of the social networking site for example, we might therefore expect to see varying degrees of identifiability.

Second, blogs represent an arena in which one would expect increased levels of private self-awareness because by their very nature they are very personal accounts of an individual's life and experiences (Fullwood, Sheehan, & Nicholls, 2009). Therefore, we would expect some blog authors at least to disclose details about their personal lives. Third, Herring and Paolillo's (2006) analysis of blog genres shows that blogs can be easily categorized as fulfilling either a diary or filter function. This should therefore mean that a genre analysis would also be possible in this investigation. Finally, blogs are written by both men and women and by individuals of all ages. In the light of the previous research on this topic, it was expected that age, sex, genre, and identifiability would all have an effect on the communication strategies of bloggers.

Method

Participants

In total, 180 male blog posts and 180 female blog posts were coded. The *sex* and *age* of the blogger were coded by referring to the blogger's profile page. Bloggers had a reported mean age of 33.39 years ($SD = 12.89$). The average reported age of both female and male bloggers was the same: 33.39 years (female standard deviation [SD] =13.17, male SD =12.62). Bloggers were coded for their level of identifiability depending on the amount of identity information that was included in their profile. Low identifiability ($n = 161$) bloggers were those who included "no name" or a "first or last name only" and "no photograph." Moderate identifiability ($n = 132$) bloggers were those who included a "full name" and "no photograph" or "first or last name only" and a "photograph." High identifiability bloggers ($n = 67$) were those who included a "full name" and a "photograph."

Where possible, obvious "fakes" were excluded from the sample (e.g., profiles which included celebrity pictures or names). Blog posts were also categorized by genre, using the same coding system adopted by Herring and Paolillo (2006). Blog posts were therefore either categorised as "diary" (i.e., if they were written about the blogger's own life) or "filter" (i.e., if they were written about events external to the blogger's life). In total, 236

blog posts were categorized as diary blogs and 124 blog posts were categorized as filter blogs. The average age of diary bloggers was 33.14 ($SD = 13.61$). and the average age of filter bloggers was 33.86 ($SD = 11.39$). Using an independent measures t test, this difference was found to be nonsignificant.

Materials

A codebook was constructed to measure a variety of communication strategies relating to acts of self-disclosure and language use. The codebook included the following variables: strong swearing; moderate/mild swearing; positive expressions of emotion about others; positive expression of emotion about self; negative expression of emotion about others; negative expression of emotion about self; expressions of fantasies, positive hopes, and dreams; expressions of fears, worries, and concerns; disclosure of personal information about others; and attacks on others. For each of the variables, the coder counted the number of occasions that they occurred in each individual blog post. See the Appendix for the full version of the codebook.

Procedure for Data Collection and Analysis

The search function on the Blog UK website (http://www.blog.co.uk/) was used to find blog posts by both male and female authors. During the time of data collection in the summer of 2010, the search function permitted elaborate search options, for example, searches could be made for blog posts by specific age groups or by sex. This feature does not, however, appear to be present on the website currently. Although a search option is still available, it does not permit advanced searches to be conducted at present.

Blogs were searched for by sex and each blog post was considered independently and the entire textual content was coded. To ensure some form of randomisation, every fourth blog post displayed in the resulting search list was selected for inclusion. However, if the blog post was not text based, in English, and between 150 to 500 words in length, it was not included in the sample and this was to ensure standardisation. Once 180 blog posts had been collected for each of the sexes, data collection was concluded. Each blog post was copied and pasted into a word document (including information from the blog author's profile page) and the coding scheme was applied independently to each blog post by an experienced coder.

A second experienced coder coded a random subsample of the blog posts (20%) for inter-coder reliability purposes. Cohen's kappa was used to calculate the level of agreement between the two coders on each of the 10 communication strategy measures. This was achieved by summing the number of occasions in which the two coders agreed/ disagreed on whether each of the variables was present or absent from the blog post. Agreement levels were above 0.70 for all dependent variables and therefore deemed acceptable (Landis & Koch, 1977). Agreement levels on the sex and age of the blogger were 100% and near 100% for genre.

Results

Chi-Square Statistics

First, a number of two-way χ^2 tests were computed to test associations between identifiability and genre, between sex and genre and between sex and identifiability.

There was a significant association between genre and identifiability, χ^2 (degree of freedom [df] = 2) = 12.06, p = .002. Bloggers who were less identifiable were more likely to construct blogs of a diary genre, whereas bloggers who were more identifiable were more likely to construct blogs of a filter genre. Table 1 provides the frequencies for genre and identifiability.

There was also a significant association between identifiability and sex, χ^2 ($df = 2$) = 7.49, $p = .024$. This showed that female bloggers were more likely to be unidentifiable, whereas males were more likely to be moderately identifiable. Males were also more likely to be highly identifiable than females. Table 2 provides the frequencies for sex and identifiability.

The analysis of genre and sex revealed a significant association, χ^2 ($df = 2$) = 35.87, $p < .001$, with female bloggers being more likely to write in a diary style, whereas male bloggers were equally likely to write in a diary style and filter style. Table 3 provides the frequencies for genre and sex.

Table 1. Cross-tabulation to show the association between genre and identifiability.

Identifiability	Genre Diary	Filter	Total
Low	115	46	161
Moderate	89	43	132
High	32	35	67
Total	236	124	

Table 2. Cross-tabulation to show the association between sex and identifiability.

Identifiability	Sex Male	Female	Total
Low	68	93	161
Moderate	72	60	132
High	40	27	67
Total	180	180	

Table 3. Cross-tabulation to show the association between genre and sex.

Sex	Genre Diary	Filter	Total
Male	91	89	180
Female	145	35	180
Total	236	124	

Communication Strategy Measures

A 2 (sex) × 2 (genre) × 3 (identifiability) between subjects analysis of variance (ANOVA) was also employed to investigate any sex, identifiability, and genre differences in the language use and self-disclosure of bloggers. Although screening of the data suggests a negative skew, ANOVA is considered to be sufficiently robust to handle these sorts of violations (Glass, Peckham, & Sanders, 1972). Finally, to assess any effect of age, regression analyses were performed to investigate whether overall age, male age, and female age predicted any of the 10 communication strategy measures. Means and standard deviations are shown in Table 4.

Number of Incidences of Strong Swearing

There was a significant effect of sex, $F(1,348) = 5.63$, $p = .018$, but no effect of identifiability, genre, and no interactions. Males used strong swearing significantly more often than females.

Table 4. Descriptive statistics to show the average occurrence (and standard deviation) for each communication strategy for the three levels of identifiability and by sex and genre.

Dependent variable	Identifiability Low (n = 161)	Moderate (n = 132)	High (n = 67)	Sex Male (n = 180)	Female (n = 180)	Genre Diary (n = 236)	Filter (n = 124)
Strong swearing	0.21 (0.86)	0.20 (0.91)	0.21 (0.84)	0.32 (1.11)	0.10 (0.54)	0.18 (0.85)	0.27 (0.92)
Moderate swearing	0.59 (1.35)	0.62 (1.49)	0.57 (1.22)	0.77 (1.71)	0.43 (0.91)	0.58 (1.26)	0.62 (1.58)
Positive emotions about others	0.24 (0.62)	0.32 (0.78)	0.38 (1.11)	0.26 (0.79)	0.34 (0.79)	0.78 (1.52)	0.03 (0.17)
Negative emotions about others	0.15 (0.56)	0.09 (0.36)	0.18 (0.63)	0.16 (0.57)	0.12 (0.45)	0.20 (0.62)	0.03 (0.18)
Positive emotions about self	0.07 (0.31)	0.09 (0.39)	0.04 (0.21)	0.06 (0.25)	0.09 (0.39)	0.11 (0.40)	0.02 (0.13)
Negative emotions about self	0.11 (0.38)	0.13 (0.52)	0.10 (0.53)	0.10 (0.40)	0.13 (0.52)	0.18 (0.57)	0.00 (0.00)
Fantasies	0.11 (0.39)	0.25 (0.94)	0.13 (0.39)	0.12 (0.39)	0.21 (0.83)	0.22 (0.76)	0.05 (0.31)
Fears	0.17 (0.67)	0.17 (0.67)	0.15 (0.58)	0.12 (0.53)	0.22 (0.75)	0.24 (0.79)	0.02 (0.15)
Personal information about other	0.22 (0.91)	0.13 (0.59)	0.12 (0.44)	0.24 (0.95)	0.10 (0.38)	0.19 (0.73)	0.12 (0.72)
Attack	0.38 (1.27)	0.23 (0.68)	0.36 (0.98)	0.45 (1.32)	0.19 (0.61)	0.23 (0.76)	0.48 (1.41)

The number of incidences of strong swearing were predicted, $r^2_{adj} = .01$, $F(1,358) = 5.44$, $p = .020$, by overall

age (b =-.12, p =.020) and also, r^2_{adj} =.02, $F(1,178)$ =4.98, p = .027, by female age (b = -.17, p = .027) but not male age. As age increases participants use strong swearing less frequently and this trend remains significant in females but not males.

Number of Incidences of Moderate/Mild Swearing

There was a significant main effect of sex, $F(1,348) = 5.371, p = .021$, but no effect of identifiability or genre and no interactions. Males used moderate/mild swearing on average more often than females. The number of incidences of moderate/mild swearing was not predicted by overall age, male age, or female age.

Number of Incidences of Positive Emotion About Other

There were no significant effects of sex or identifiability however there was a significant effect of genre, $F(1,348) = 24.42, p < 0.001$. Bloggers expressed more positive emotion about others in the diary genre comparative to the filter genre. There was also a significant interaction between sex and identifiability, $F(2,348) = 4.10, p = .017$. Males had more expressions of positive emotion about others in the high identifiability condition (mean [M] =0.48) compared with low (0.24) and moderate (0.15) conditions. Female bloggers expressed more positive emotion about others in the moderate identifiability condition ($M = 0.52$) compared with low (0.25) and high (0.26) conditions. Overall age, female age, and male age did not predict the amount of positive emotion expressed about others by bloggers.

Number of Negative Expressions of Emotion About Others

Main effects for sex and identifiability were nonsignificant; however, there was a significant main effect for genre, $F(1,348) = 11.82, p = .001$. Bloggers expressed more negative emotion about others in the diary genre comparative to the filter genre. There was a significant interaction between sex and identifiability, $F(2,348) = 3.06, p = .048$. Males had more expressions of negative emotion in the high identifiability condition (M =0.28) compared with the low (0.13) and the moderate conditions (0.11). Female bloggers expressed more negative emotion about others in the low identifiability condition ($M = 0.17$) compared with the moderate ($M = 0.10$) and high identifiability (0.04) conditions. There was a significant interaction between sex and genre, $F(2,348) = 5.41, p = .021$. Males were more likely to express negative emotions about others in the diary genre ($M = 0.29$) compared with the filter genre (M =0.02), whereas females express negative emotions about others similarly in the diary (M =0.14) and filter (M =0.06) genres.

The number of negative expressions of emotion about others were predicted, r^2_{adj} = .03, $F(1,358) = 10.88, p$ = .001, by overall age (b = -.17, p = .001), r^2_{adj} = .02, $F(1,178)$ =4.12, p =.044, by male age (b =-.15, p =.044), and, r^2_{adj} = .04, $F(1,178) = 7.50, p = .007$, by female age ($b$ = -.20, p =.007). Overall, participants express fewer negative emotions about others as their age increases; this trend is seen in both males and females.

Number of Positive Expressions of Emotion About Self

There was a main effect for genre, $F(1,348) = 4.59, p = .033$, meaning that bloggers expressed more positive emotions about themselves in the diary genre comparative to the filter genre. There were no significant effects of sex and identifiability and no interactions. Overall age, female age and male age did not predict the amount of positive emotion expressed about themselves by bloggers.

Number of Negative Expressions of Emotion About Self

There was a main effect for genre, $F(1,348) = 12.09, p = .001$, meaning that bloggers expressed more negative expressions of emotion about themselves in the diary genre comparative to the filter genre. There were no significant effects of sex and identifiability and no interactions.

The number of negative expressions of emotion about self were predicted, r^2_{adj} = .01, $F(1,358)$ =5.45, p =.020, by overall age (b = -.12, p = .020) and, r^2_{adj} =.02, $F(1,178) = 5.10, p$ =.025, by female age (b =-.17, p =.025) but not male age. Overall, participants express fewer negative emotions about themselves as their age increases; this trend is present in female participants but not males.

Number of Expressions of Fantasies, Positive Hopes, and Dreams

There was a main effect for genre, $F(1,348) = 5.26$, $p = .022$, meaning that bloggers made more expressions of fantasies, positive hopes, and dreams in the diary genre comparative to the filter genre. There were no significant effects of sex or identifiability and no significant interactions.

The number of expressions of fantasies, positive hopes, and dreams were predicted, $r^2_{adj} = .03$, $F(1,178) = 6.17$, $p = .014$, by male age ($b = -.18$, $p = .014$) but not by overall age or female age. Male participants expressed fewer fantasies, positive hopes, and dreams as their age increased.

Number of Expressions of Fears, Worries, and Concerns

There was a main effect for genre, $F(1,348) = 7.77$, $p = .006$, meaning that bloggers made more expressions of fears, worries, and concerns in the diary genre comparative to the filter genre. There were no significant effects of sex or identifiability and no significant interactions. Overall age, female age, and male age did not predict the amount of expressions of fears, worries, and concerns made by bloggers.

Number of Incidences of Disclosing Personal Information About Others

Sex, genre, and identifiability resulted in nonsignificant main effects and interactions. The number of incidences of disclosing personal information about others was predicted, $r^2_{adj} = .01$, $F(1,358) = 5.78$, $p = .017$, by overall age ($b = .13$, $p = .017$) and also, $r^2_{adj} = .02$, $F(1,178) = 4.34$, $p = .037$, by male age ($b = .16$, $p = .037$) but not female age. Overall, participants disclosed more personal information about others as their age increased; this trend was seen in males but not females.

Number of Incidences of Attacking Others

There was a significant main effect of sex, $F(1,348) = 5.26$, $p = .026$, but no effect of identifiability and genre, and no interaction. Males attacked others on significantly more occasions than females. The number of incidences of attacking others was not predicted by overall age, male age, or female age.

Correlational Statistics

Finally, Pearson's correlations were computed between positive emotions about self and negative emotions about self, and between positive emotions about others and negative emotions about others. These were broken down by sex. There was a significant positive correlation between positive emotions about self and negative emotions about self for females, $r(180) = .244$, $p = .001$, but not for males. Females who blogged positive emotions about the self were also likely to blog negative emotions about the self; however, for males these categories appear to be more mutually exclusive. There was also a significant positive correlation between positive emotions about others and negative emotions about others for males, $r(180) = .334$, $p < .001$. Males who blogged positive emotions about others were also likely to blog negative emotions about others; however, for females these categories appear to be more mutually exclusive.

Discussion

The study findings reveal that women are more likely to construct diary style blogs than filter blogs, whereas men appear equally as likely to construct blogs of both genres. This is in line with previous findings (e.g., Herring, Kouper, Scheidt & Wright, 2004) and implies that, by and large, women write about their own lives, whereas men are as prone to discuss events external to their own lives as they are to write about their own experiences. Writing about external events (e.g., politics) may be considered to fall within the male domain, whereas writing in a diary style is traditionally associated with females (Herring & Paolillo, 2006).

The study also reveals that male bloggers are more likely than female blog authors to identify themselves and that female bloggers tend to be less identifiable, on the whole, than their male counterparts. This suggests that men may be less concerned with online privacy issues than women, a phenomenon that has been previously reported in the literature (e.g., see Fogel & Nehmad, 2009; Sheehan, 1999; Youn & Hall, 2008). This

may be a reflection of men being more confident in linking their name to their online musings or perhaps they are more motivated to advertise personal ownership of their blogs. Previous research reveals that important sex differences in the self-concept begin to surface during adolescence. More specifically, girls are more self-conscious, susceptible to criticism, and more concerned with promoting interpersonal harmony than boys.

On the other hand, boys are more concerned with accentuating their achievements and competency (Rosenberg & Simmons, 1975). In this sense, female bloggers may be less likely to identify themselves because they are less sure of themselves. This may be further evidenced by the fact that female blog authors who blogged positive emotions about themselves also tended to blog negative emotions about themselves, whereas male bloggers were more consistent in that respect. Male blog authors, on the other hand, may wish to appear to be more consistent as a reflection of their confidence and, perhaps, their prowess as a blogger in a bid for kudos. This may be one reason why they were more likely to identify themselves.

Findings also revealed that the less identifiable a blogger was, the more likely they were to write in a diary style. Conversely, the more identifiable a blogger, the greater the likelihood of them constructing a filter style blog. This suggests that bloggers on the surface feel more comfortable talking about their own lives when they are less identifiable. However, it is possible that this effect may have been moderated by sex and, in particular, when it came to writing about other people. For instance, women were more likely to express negative emotions about others when they were less identifiable, whereas the opposite was true for men. Men were also more likely to express negative emotions about others in the diary style genre, whereas women expressed negative emotions about others similarly across the diary and filter genres. Perhaps in expressing negative views about other individuals, women would be more concerned about how this would effect their social standing, especially if these comments were ever traced back to them.

This idea can be further substantiated if we consider the fact that women also have a greater concern in promoting interpersonal harmony (Rosenberg & Simmons, 1975) and place more emphasis on social networks than men do (Antonucci & Akiyama, 1987). Men, on the other hand, seem happier to identify themselves when they are expressing negative and positive emotions about other people. Men may be more self-assured and independent and therefore less likely to be concerned by the social implications of these messages being traced back to them. Mazur and Kozarian (2010) also suggest that men are less likely to receive comments on their blogs than women. In this sense, it may be accountability rather than identifiability that is important. Men may continue to express negative emotions about others, even when they are identifiable, until they are challenged or held accountable for their comments.

In terms of genre, the diary style blogs were much more likely to contain acts of disclosure than the filter style blogs, which are as follows: positive expressions of emotion about others; positive expressions of emotion about self; negative expressions of emotion about others; negative expressions of emotion about self; expressions of fantasies, positive hopes, and dreams; expressions of fears, worries, and concerns; and disclosure of personal information about others. This finding is unsurprising and it makes sense that more disclosure would occur when people are writing about their own lives than when they are writing about events external to their lives. A diary style of blogging would tend to facilitate self-disclosure, whereas a filter style would not necessarily.

In terms of age, younger bloggers appear to have more freedom of expression in their blogs (i.e., with increased swearing). Younger bloggers also constructed their blogs in an emotionally laden tone, with more negative expressions of emotions about the self and others. These findings support those of Mazur and Kozarian (2010), but are in contrast to those of Fullwood et al. (2009), whose research suggests that older bloggers may be more likely to construct their blogs as an emotional outlet using a negative tone. It is likely that the type of negativity recorded in the Fullwood et al. (2009) study is qualitatively different from that which was measured in the current study and further investigation should examine the types of negativity expressed by different age groups in their blog posts.

Mazur and Kozarian (2010), however, did note a discrepancy between how younger blog authors talked about themselves and how they talked about their own lives and experiences. Specifically, younger blog authors often talked about themselves positively, but talked about their experiences and lives in a more negative way. In this sense, further studies may also wish to consider the type of negativity that is being expressed. For instance, does the negative tone of a blog reflect negative emotions about the authors themselves, or about the authors' lives, or about events external to the authors' lives?

This study also revealed that younger female bloggers swore more regularly and disclosed more information about themselves. This may be in part explained by generational differences in attitudes toward the use of technology and online indiscretion. Previous research suggests that women are more concerned with privacy and the disclosure of personal information online than men.

Moreover, greater computer self-efficacy is associated with lower levels of computer anxiety and more positive attitudes towards using the Internet generally (e.g., Fogel & Nehmad, 2009). It is possible that older female bloggers are more discrete online due to concerns about who might gain access to their revelations. Younger Internet users are also said to be more willing to provide information about themselves as they see more benefits to self-disclosure (Youn, 2005), perhaps for relationship maintenance or impression management purposes, and this may be more important for younger females. Male bloggers tended to behave more aggressively than their female counterparts, for example, by swearing and attacking others. Stereotypic male communication strategies have been noted in many other online arenas, for example, discussion forums (see Herring, 1994 for some of these), and this would therefore seem to be a fairly persistent phenomenon.

The degree to which bloggers made themselves known to their audience appeared to have limited influence on disclosure and language use (or least those communication strategies measured in this study). This suggests that the simple act of being online gives bloggers a sense of freedom and protection and that this is unlikely to be considerably enhanced by anonymity. This may also be unique to certain online contexts, particularly ones in which online individuals feel that their potential audience is quite small. The findings may also imply that accountability is more important than identifiability when it comes to disclosure and language use. The fact that some bloggers were less identifiable than others may reflect a desire for privacy rather than a need to distance themselves from their blogs. Bloggers may choose to remain anonymous because their musings, although not necessarily contentious, are private and personal to them. Bloggers may also choose to remain anonymous because they do not want individuals known to them in the offline world linking their blog content to them; therefore, some unidentifiable bloggers may be attempting to avoid harassment or ridicule.

Overall, we would conclude that age, sex, genre, and identifiability form a cluster of traits that influence the communication strategies of bloggers. Although identifiability did not have as strong an impact as expected, the fact that it interacted with other factors suggests that it may have an attenuated effect and that its role has been over-emphasized in some previous research, and although the genre of the blog seemed to have the greatest influence on the communication strategies that were employed, sex, and age differences in language use and disclosure were still evident. This suggests that at least in part the online behavior of bloggers can be predicted by individual differences. In conjunction with this notion, it may be worth exploring personality correlates with blog content. Indeed, Guadagno, Okdie, and Eno (2008) have shown that personality traits can predict an individual's inclination to construct a blog. However, to the authors' knowledge no research to date has looked at whether personality has an influence on actual blog content, blog style, and an individual's motivation for constructing their blog.

Further research could consider the role of interactivity and how this influences the communication strategies of bloggers. Previous findings suggest that our communication strategies are likely to be influenced by the sex of the individual with whom we are interacting (e.g., Herring, 1994; Thomson et al., 2001). Although it has been suggested that the majority of blogs are written as monologues, and therefore lack an interactive dimension (Mazur & Kozarian, 2010), bloggers who do receive feedback are said to be more likely to continue blogging (Kawaura, Yamashita, & Kawakami, 1999), emphasizing that feedback is important to bloggers. Further research should therefore explore the nature of interactivity in blogs and how this may influence communication strategies.

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Appendix

Codebook

Variables A, B, C, and D should be gleaned from the Blogger's profile page. All other remaining variables should be coded from the actual content of the blog post.

A) Sex
1) Male
2) Female
B) Age
List the blogger's age as indicated on their profile page.
C) Name
1) No name (i.e., left blank)
2) First name only
3) Last name only
4) Full name listed
D) Picture
1) No pictures of the blogger included
2) Picture(s) of the blogger included
E) Strong swearing
Count the number of strong swear words used in the blog.
F) Moderate/Mild swearing
Count the number of moderate swear words used in the blog.

The following table (adapted from Thelwall, 2008) should be used to determine the number of each type of swear word. Also note that "words are not categorised by the degree of offence given but by public average perceptions, which depend partly upon usage. For example *nigger* and *queer* could be extremely offensive in an abusive context but inoffensive in a reclaimed context. Similarly, *Jew* and *gay* could be used as insults or as neutral self-descriptions." Swear words included in blog posts that are not included in this list should be checked against the list and categorized according to the relative strength of the word.

Swear words	Strength
For example: cunt, fuck, fucked, fucken, fucker, fuckin, fucking, fuckstick jew, kike, motherfuckin, motherfucking, muthafucker, muthafuckin, mutherfucker, nigga, niggah, niggas, niggaz, nigger, nigguh, paki, spastic.	Strong

For example: arse, arsehole, arsed, ass, asshole, bap, bastard, bimbo, bird, bitch, bloody, bollock,　　　Moderate/mild
　　bonk, boob, bugger, bullshit, butt, butthead, butthole, christ, cock, cocksucker, cow,
　　crap, damn, dick, dickhead, dipshit, dork, dorky, fanny, fart, gay, git, hell, hussy,
　　idiot, jerk, jesus, jug, knocker, minger, moron, pig, pillock, pimp, piss, pissed,
　　pissin, pissing, poof, poofter, poofy, prick, pussy, queer, retard, screw, screwed,
　　　shag,
　　shagged, shagging, shit, shite, shithead, shittin, shitty, skank, slag, slagged, sod, slut,
　　tart, tit, titties, tosser, turd, tart, tarty twat, wank, wanker, wanking, whore

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G) Positive expression of emotion about others.

Count the total number of instances.

When someone expresses positive, warm views about another individual or individuals. For example, "My parents are amazing people," "My sister and I had a wonderful time in Blackpool," or "We were a loving family."

H) Negative expression of emotion about others.

Count the total number of instances.

When someone expresses negative views about another individual or individuals. For example, "My Parents were cold people," "I hated going to Blackpool with my sister because we had a terrible time," or "My sister and I were so upset by our parent's break-up."

I) Positive expression of emotion about self.

Count the total number of instances.

When someone expresses positive, warm views about themselves. For example, "I felt so good about myself when I got my degree," "I thought I looked great this morning," or "We'll never be the same again, but I'm okay with it."

J) Negative expression of emotion about self.

Count the total number of instances.

When someone expresses negative views about themselves. For example, "I felt so bad when I failed my degree," "I thought I looked awful this morning," or "Sadly, we'll never be the same again."

K) Expressions of fantasies, positive hopes and dreams.

Count the total number of instances.

Comments on what bloggers would like to achieve, both realistic (hopes and dreams) and unrealistic (fantasies and dreams). For example, career-aspirations such as "I've wanted to be a doctor since I was a little girl"; sexual fantasies such as "I've always wanted to have a passionate night with (insert famous pop star)"; ambitions such as "I want to be a millionaire"; positive hopes and dreams such as "I'm happy now and I hope I stay this way."

L) Expressions of fears, worries, and concerns.

Count the total number of instances. For example "I'm terrified of the thought that I might get cancer," "My biggest nightmare is that I'll be alone," "We're worried that our parents have split for the final time," "I'm worried about the future with the changes in climate," and "I'm worried that on my wedding night my partner will think I'm too fat."

M) Disclosing personal information about others.

Count the number of instances.

Should include any instance where the blogger discloses personal information about another individual. This can include information pertaining to their disposition, personality, history, habits, or behavior. For example, "My Dad likes to bite his finger nails," "Joe is really ratty in the morning," "The conflict with my brother has been going on for years," and "My next door neighbour has always been a nasty piece of work."

N) Attacking others

Count the number of instances.

Should include any instance where the blogger attacks another individual, which can include insults, disparaging comments, and nicknaming. For example, "Lucy's singing voice sets my teeth on edge," "John Smith is sad and he'll never get a girlfriend," and "We used to call him tubby because he's so overweight."