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The Role of Emotional Expression in Accessing Social Networks: The Case of Newcomers' Blogs

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ABSTRACT

Research has established the critical role of social networks in facilitating adjustment to foreign environments. Increasingly, social interactions are happening through computer mediated technology. This paper explores the role of emotional expression in newcomers' blogs in developing and interacting with social networks in a new country. This research uses a dictionary-based text analytics approach to detect emotional expression in newcomers' blog posts and their associated discussions. Blog posts with more emotional expression had more associated responses; discussions tended to be more positive than posts; and the relative amount of negative emotion in the discussions increases as posts become more negative. Results suggest that expression of emotion in blogs can facilitate access to social networks and increase engagement in online communities by increasing the amount of responses and triggering congruent emotional response from blog readers, which is a precursor to affiliation and understanding. The findings in this paper highlight the role of emotional expression in blog posts and discussions, and its connection to developing social networks and engaging in online communities which has the potential to facilitate access to social support.

KEYWORDS: text analytics, blogs, expatriate adjustment, emotional expression, online communities, computer mediated communication

INTRODUCTION

Online communities have become an increasingly important part of the daily lives of individuals worldwide. While the communities can take many forms including

Facebook groups, web-based forums, newsgroups, and blogs, what is common among them is that they are all enabled by computer-mediated communication (CMC). A person's interaction and experience within an online community is dependent on several CMC-enabled factors including the topic of what is communicated (what is said) and the style and tone of the message (how it is said) (Arguello et al., 2006). A major component of message tone is the degree of emotional expression encoded within the electronic communication (Hine, Murphy, Weber and Kersten, 2009). Research suggests that emotional expression in CMC influences communication outcomes (Ellis et al., 2007; Hrastinski, 2008; Moore et al., 1999; Walther et al., 2005; Wright et al., 2013), including how individuals respond to messages (Ziegele and Reinecke, 2017), the result of negotiations (Hine et al., 2009), and the degree to which information diffuses throughout social networks (Stieglitz and Dang-Xuan, 2013). Within online community research, emotional expression has been studied primarily within a social support context including cancer support groups (Lewallen et al., 2014) and several experiments designed to simulate support groups (Biehl and Kahn, 2016; Rains et al. 2016)). A main purpose for studying emotional expression in the social support context has been to understand how to get helpful responses that meet people's psychological needs (Biehl and Kahn, 2016). Our manuscript contributes to the literature on emotional expression in CMC in several ways. First it delves much deeper into the interrelationship between the emotional expression in initial posts and subsequent responses than previous research; an area of inquiry that is critical to understanding online community building. Second, we conduct our research on emotional expression using a unique dataset of a newcomer blogging community comprised of a multitude of bloggers and discussants.

In this study, we focus on the revelatory case of newcomers to Canada. When moving to a foreign environment, individuals face uncertainty, ambiguity and anxiety (Adelman, 1988; Gao and Gudykunst, 1990; Nardon, Aten and Gulanowski, 2015) and disruption of social networks (Chib et al., 2013; van Bakel, van Oudenhoven, and Gerritsen, 2017; Wang, 2002; Crowne et al., 2015; van der Laken et al., 2016). To gain access to informational and emotional support, newcomers need to access new social networks locally (Nardon et al., 2015; Sonesh and DeNisi, 2016; van Bakel et al., 2017). Establishing new support networks in a foreign environment often takes time and effort (Hynie, Crooks, and Barragan, 2011; Makwarimba et al., 2013; McMichael and Manderson. 2004; Sonesh and DeNisi, 2016) and many newcomers are taking advantage of advances in CMC to develop relationships with local contacts (Mikal, Rice, Abeyta, and DeVilbiss, 2013; Ahmed and Veronis, 2017; Caidi et al., 2014; Crowne et al., 2015; Figer, 2014; Nardon and Aten, 2016; Nardon et al., 2015; Tabor and Milfont, 2013; Takeda, 2013).

One type of CMC that has received attention in the literature and is used in expatriate adjustment are blogging systems (Nardon and Aten, 2016; Nardon et al., 2015; Takeda, 2013) which support the initial posting of content but also facilitate interaction of users through discussions. Blogs are websites or parts of websites where people post writing and images on a regular basis, in a storytelling fashion, and readers can respond by posting comments and links to other blogs (Du and Wagner, 2006). When discussions on a blog topic occur, they can contribute to building of a sense of community which can be characterized by feelings of membership, influence, being supported, and potentially a shared emotional connection (McMillan and Chavis, 1986). Blogging technology provides new ways of communicating and new opportunities for research by allowing the non-obtrusive observation of a community, which may provide insights that are not available through traditional data sources (Takeda, 2013). Blogging allows a unique window into expressions and reflections about/on daily life absent of researcher intervention. Newcomer blogs and their associated discussions are thus a rich source of research data as they provide longitudinal accounts of their experiences, challenges and reflections as they transition to a new environment, attempt to engage with a new community, and seek adjustment resources through social networks (Nardon et al., 2015).

Given this nascent research area we used an inductive process of data analysis and theorizing (Meyers, 2013) to investigate the role of emotional expression in accessing social networks in a foreign environment using a blogging system. Our initial exploration of a dataset of newcomers' blog posts and associated discussions through text analytics was guided by the broad research question "What is the role of emotional expression in newcomers' blogging communities?" Following principles of inductive analysis, we iterated between our findings and literature until we arrived at the narrow question presented here: "What is the role of emotional expression in newcomer blogs in accessing social networks?" We found that emotional expression in blogs facilitated newcomers' interactions in the online blog community by increasing the number of responses and triggering emotional expressions in responses from readers that facilitate affiliation and belonging.

To spare the reader the ambiguity of the inductive process, we start by first presenting the literature on the role of emotional expression in facilitating the creation and strengthening of social ties, in which we came to draw upon through the process of the study, and then present our study. We conclude with some propositions and implications for theory and practice.

EMOTIONAL EXPRESSION AND SOCIAL TIES

People share their emotions for various reasons, including gaining social attention and support; soliciting comfort, consolation and empathy; legitimizing and validating their emotions; receiving advice; and facilitating bonding and strengthening social ties (Rimé, 2009). Studies suggest that the expression of emotions can influence mutual understanding and empathy, as well as the quality of relationships (Hess and Fischer, 2013). Research has established that expression and mimicry of emotions can also signal affiliation intentions and understanding of others' emotions (Hess and Fischer, 2013, 2014). For instance, in face to face interactions, a smile typically signals and promotes affiliative intentions whereas an angry face usually signals potential hostility and lack of affiliative intent (Bourgeois and Hess, 2008; Hess and Fischer, 2013, 2014). Similarly, mimicking the emotions of another can make them feel more accepted and better understood, increasing their sense of belonging (Hess and Fischer, 2013; Marcu, 2012; Yabar and Hess, 2007).

Emotional Expression in CMC

Information and communication technologies are increasingly used as a medium of social interaction (Chen and Choi, 2011; Chib et al., 2013; Chung, 2013; Derks et al., 2008; Mikal et al., 2013; Ye, 2006), and are particularly relevant for newcomers who lack other sources of information and support in the local environment (Ahmed and Veronis, 2017; Chu, Kwan, and Warning, 2012; Mikal et al., 2015; Nardon et al., 2015; Sirikul and Dorner, 2016; Yoon, 2017). For instance, in 2016, the average Internet user spent over two hours on social networking and messaging daily (Mander, 2017) with a primary purpose of accessing social support and interacting with others (Oh, Ozkaya and LaRose, 2014; Park, Kee, and Valenzuela, 2009).

Research has established that individuals frequently and explicitly express emotions in CMC and propose that this phenomenon is worth further investigation (Derks et al., 2008; Kafetsios et al., 2017; Rodríguez-Hidalgo et al., 2017). Depending upon the media type, emotional expressions in CMC can be represented in a variety of ways. When communicating in text, an emotional expression typically means a word, word stem, or emoticon. If communicating through voice, additional cues such as vocal inflection can be considered. Finally, if communicating through video, facial inflections can also be assessed for emotional expression. Research on emotional expressions in CMC (Derks et al., 2008) suggests that emotional communications are more frequent and explicit in CMC than in offline communication. Further, research has shown that textual cues such

as nonstandard or multiple punctuation, word choices, and emoji's can effectively express and transfer emotions in CMC (Harris and Paradice, 2007; Rodríguez-Hidalgo et al., 2017). Overall, this line of research suggests that words, word stems and emoticons can be categorized and counted as expressing positive or negative emotion.

Extant research primarily focuses on examination and comparison of emotional expression in CMC and face-to-face interactions, and mainly in the contexts of health (Blank and Adams-Blodnieks, 2007; Derks et al., 2008; Kafetsios et al., 2017; Mo, Malik, and Coulson, 2009). In this paper, we focus on the underexplored context of emotional expression of newcomers and its implication for accessing social networks.

RESEARCH APPROACH

We approach this study using inductive reasoning (Meyers, 2013). That is, we started our analysis with the data guided by a broad research question “What is the role of emotions in newcomers’ blogging?” As we analyzed the data, and iterated with literature, until we arrived at an understanding of how emotional expression was influencing newcomers access to social networks which has guided us to the literature reviewed above.

In this paper, emotional expression refers to the existence of any word or word stem within our corpus that can be categorized as either positive or negative emotion. Given this definition, the two main approaches for detecting emotional expression are qualitative content analysis or a more automated text analytics approach. The prior requires multiple coders to be trained on detecting text that expressed positive and negative emotion while the latter approach can leverage existing previously validated emotional expression dictionaries. Additional advantages of text analytics over traditional manual content analysis is that it is “consistent (without random human error), replicable (the process is rule-based), scalable (coding efforts are the same regardless of the number of reports analyzed), and transparent (when the keywords/phrases and search criteria used to automate identification are made available)” (Boritz, Hayes & Lim, 2013). In addition, text analytics is being embraced by researchers due to its ability to process large amounts of text quickly (Krippendorff, 2013). Text analytics methods assist researchers to uncover meaning, patterns and structure within large bodies of text (Chakraborty, Pagolu and Garla, 2013; Miner et al. 2012; Struhl, 2015). While the qualitative approach can potentially offer a more nuanced analysis, given the size of our corpus and the advantages detailed above, we use text analytics methods that rely on categorization

models (dictionaries) designed to deal with polymorphy in language where one idea/concept can be represented by many different word forms (Krippendorff, 2013). In our study, we use previously validated dictionaries with established high reliability designed to detect the expression of positive and negative emotion in language (Pennebaker et al., 2015).

Data Collection and Organization

This paper is part of a larger project on the role of technology in newcomers' adjustment. The complete data collection and selection process is described in table 1. For this study, we use a dataset of blogs written by newcomers to Canada (Authors, 2015) identified through a key word search in technorati.com in 2012 followed by snowball sampling (Biernacki and Waldorf, 1981) to expand our dataset by following links to other blogs identified in our sample. In the first stage, using qualitative content analysis we identified all blogs written by newcomers to Canada. To be included in the final dataset, blogs needed to be written in English, by foreigners residing in Canada, and with an explicit purpose to discuss their process of immigration or life in Canada expressed in the "about page", and active in the last 2 years.

Table 1: Data collection and selection

Action	Description	Sample
Selection of Blogs	Key word search in Technorati.com: Canada immigrant, Canadian immigrant, foreigner Canada, immigrate Canada, Canada expatriate, Canada expat	236 blogs
	Elimination of duplicates, non English blogs, blogs not relevant to living abroad	18 blogs
	Snowball technique using blog rolls	44 blogs
	Final selection based on about pages explicit focus on experience of living in Canada	24 blogs
Selection of Posts	Collection of posts about living in Canada	945 posts
Creation of Complete Dataset	Elimination of blogs with less than 10 posts	21 blogs, 921 posts

For each blog, we selected all posts that had explicit references to the experience of living in Canada. This process resulted in 945 posts about living in Canada, immigration, and Canadian culture. We then eliminated blogs with fewer than ten relevant posts (three blogs), resulting in 921 posts from 21 blogsii. Of the 921 blog posts, 575 of them have a corresponding discussion associated with it. For the purposes of our study, a discussion is comprised of one or more responses to the

original blog post or to a response within the discussion itself. Discussion responses may be written by multiple individuals including the original blogger. A description of the dataset is depicted in table 2.

Table 2: Bloggers in the dataset

	Country	Gender	Arrive	05	06	07	08	09	10	11	12	# posts
Aiglee	Venezuela	Female	2007	-	-	22	17	2	-	2	-	43
Alice in Canada	USA	Male	2008	-	-	-	8	13	3	2	-	26
Canada Immigrant's Blog	Middle East*	Male	2006	-	7	1	6	5	1	2	1	23
Canada Pisani	USA	Family	2008	-	-	-	18	26	14	7	-	65
Canadian Boondiada	USA	Male	2008	-	-	-	27	5	-	-	-	32
Cooking in someone else's kitchen	UK	Female	2007	-	7	7	6	-	5	7	-	32
Correr es mi destino	France	Female	2004	-	2	21	9	9	12	5	9	67
Dear England, Love Canada	UK	Female	2008	-	-	-	-	-	38	17	-	55
Dear to Toronto	Middle East*	Male	2007	-	-	-	2	4	5	2	4	17
Expat Travels	USA	Female	2007	3	18	12	1	2	-	1	-	37
Expatlogue	UK	Female	2010	-	-	-	-	-	-	37	10	47
Filipino in Canada	Philippines	Female	2006	1	-	-	28	-	-	1	-	30
How to live in Canada	Brazil	Male	2003	-	1	2	30	15	-	-	-	48
My journey as a newcomer in Canada	Mexico	Female	2010	-	-	-	-	-	-	11	-	11
Prairie Road	USA	Family	2006	-	-	22	10	8	2	2	-	44
The Expatriate Mind	USA	Male	2005	9	5	7	11	17	12	13	15	89
The Zieglers Blog	Argentina	Family	2005	-	-	-	-	-	23	53	17	93
Two moms to Canada	USA	Female	2007	-	15	15	11	-	-	-	-	41
Welcome Canuck	Philippines	Unknown	1997	-	12	1	1	-	-	2	-	16
WMTC	USA	Female	2005	32	7	9	7	5	10	2	3	75
Wondrous Canadian Renewal	USA	Male	2006	4	16	5	1	2	1	1	-	30
Total number of posts				49	90	124	193	113	126	167	59	921

Analytical approach

We used the Lexical Inquiry Word Count (LIWC) 2015 software (Pennebaker et al., 2015), a widely-used dictionary-based text analytics software (see for example Buck and Penn, 2015; Minor et al., 2015). The most recent version of LIWC contains approximately 6,400 words, word stems, and select emoticons organized hierarchically within a multitude of categories and reflects 86% of the words that people use in writing and speech (Pennebaker et al., 2015). For this study, we make use of the ‘affective processes’ category and its main associated subcategories, illustrated in table 3. The Affect variable is a composite variable reflecting the total amount of emotional expression (both positive and negative emotion) in a text. We will use the term emotional expression to refer to the Affect variable for the remainder of the paper. The emotional expression, positive emotion and negative emotion variables are all expressed as ‘percentage of text’. For example, for a given blog post, a positive of emotion score of 5 would be interpreted as ‘5% of the text in the blog post expresses positive emotion’.

Table 3: LIWC Affect-related Categories/Subcategories

Affect Hierarchy	Number of Words/stems	Examples
Affect (EmoExpr)	1393	Happy, cried...
Positive Emotion (PosEmo)	620	Love, nice, sweet...
Negative Emotion (NegEmo)	744	Hurt, ugly, nasty...

In addition, we used the emotional tone summary variable (Cohn, Mehl, and Pennebaker, 2004). Emotional tone is measured by calculating the difference between positive and negative emotion and then normalizing the result on a 0-100 scale. This allows the comparison of emotional tone across bodies of text of different lengths. A relatively high emotional tone reflects “a more positive, upbeat style” while a low number “reveals greater anxiety, sadness, or hostility” for a given body of text (Pennebaker et al., 2015). An emotional tone of around 50 suggests “either a lack of emotionality or different levels of ambivalence” (Pennebaker et al., 2015).

All blog posts and associated discussions were ‘cleansed’ before being analyzed. This involved correcting all spelling mistakes and removing any superfluous text that may impact the results, such as email addresses, hyperlinks, and standard headers. In the analysis of the text, blog posts are assessed separately from their associated discussions.

DATA ANALYSIS

We started our analysis by exploring whether the emotional content in blog posts was associated with the amount of subsequent discussion, operationalized as the number of responses following a post. We split the sample based on the number of responses associated with a blog post. Our initial split involved isolating posts that had no responses ($n=346$), and then splitting the remaining sample into approximately two equal sized subsamples; posts that had 1-5 responses ($n=291$) and posts that had greater than five responses ($n=284$). Statistical testing determined that there were no significant differences in the relative amounts of emotional expression between the posts with zero responses and the posts with 1-5 responses. We thus collapsed those two subsamples into a single category of posts with 0-5 responses ($n=637$) and then compared them to the subsample of posts with more than 5 responses ($n=284$). We performed t-tests across the two subsamples for each of the emotional content variables (see table 4).

Table 4: Emotional Expression in Blog Posts Based on Number of Discussion Responsesⁱⁱⁱ

	0-5 Responses (n=637)		>=6 Responses (n=284)		t	p
	Mean	SD	Mean	SD		
Tone	57.00	25.50	56.40	23.20	.337	0.736
EmoExpr	3.85	1.81	4.24	1.80	-3.021	0.003**
PosEmo	2.77	1.51	2.96	1.36	1.789	0.074
NegEmo	1.01	1.08	1.22	1.03	-2.655	0.008**

**significant at .01

The mean percentage amount of emotional expression is significantly higher in the group of blog posts that have greater than 6 responses than the group that had 0-5 responses. While there is no significant difference in positive emotion across the subsamples, the proportional amount of negative emotion is significantly higher in the blog posts with more responses than what is found in the blog posts of the other subsample.

Given our initial result, we were interested in understanding whether an association exists between emotional expression in blog posts and emotional expression in the responses of the resulting discussion. To do this we restricted our sample by removing the blog posts that had no associated discussion. We then performed matched pair t-tests across the emotional content categories for blog posts and their associated discussion (see table 5).

Table 5: Emotion in Blog Posts and Associated Discussions

	Posts (n=575)		Discussion (n=575)		t	p
	Mean	SD	Mean	SD		
Tone	57.68	24.19	75.70	26.09	-13.56	0.000**
EmoExpr	4.07	1.79	6.99	4.25	-15.57	0.000**
PosEmo	2.91	1.42	5.65	4.34	-14.62	0.000**
NegEmo	1.09	1.01	1.27	1.33	-2.97	0.003**

*significant at .05; ** significant at .01

Overall, there is significantly more relative emotional expression in the discussion compared to its associated post. Specifically, the emotional tone of the discussions is significantly higher (more positive) than the posts. This is reflected in the higher relative amounts of positive emotion variable for the discussions. Interestingly, the discussions also have significantly more proportional negative emotion than the posts but the differential between the content is smaller than the positive emotion.

To further explore the association between blog posts and discussions we split the sample based on the 'emotional tone' of the blog post itself. That is, we were interested in understanding whether positive, negative or neutral blog posts resulted in different emotional expressions within the responses. The overall mean and standard deviation of emotional tone for all corpora used in creating the LIWC variables is 54 and 23 respectively (Pennebaker et al., 2015). We used the mean as a starting point and went one half of a standard deviation (11.5) in either direction to create our subsamples. This resulted in a neutral tone subsample of blog posts and associated discussions that had an emotional tone between 42.5 and 65.5 (n=190), a negative tone subsample where post emotional tone was less than 42.5 (n=158) and a positive tone subsample where emotional tone was greater than 65.5 (n=227). We performed t-tests across the subsamples for the emotional content categories for blog discussions (See table 6 below).

Table 6: Emotional Expression in Blog Discussions Based on Blog Post Tone

	Low Tone Post Discussions (n=158)		Neutral Tone Post Discussions (n=190)		High Tone Post Discussions (n=227)		Low: Neutral		Low: High		Neutral: High	
	Mean	SD	Mean	SD	Mean	SD	t	p	t	p	t	p
Tone	70.16	27.44	75.39	25.27	79.81	25.16	1.85	0.065	3.57	0.000**	1.78	0.075
EmoExpr	7.05	4.70	6.83	4.29	7.08	3.89	-.441	0.660	.07	0.948	.604	0.546
PosEmo	5.39	4.84	5.51	4.28	5.95	4.00	.241	0.809	1.25	0.213	1.10	0.273
NegEmo	1.59	1.54	1.27	1.32	1.05	1.14	-2.11	0.035*	-4.02	0.000**	-1.88	0.061

*significant at .05; ** significant at .01

The movement of the emotional tone of the discussions is consistent with the tone of the posts. That is, the tone of the discussions becomes more positive as the blog posts become more positive. This result is significant when comparing the tone of the negative post discussions to the positive post discussions but not for the other subsample comparisons. Similarly, the relative amount of positive emotion in the discussion increases as the posts become more positive although the differences are not significant. Negative emotion in discussions decrease as posts become more positive. These differences are significant when comparing the discussions in the negative post subsample with the other two subsamples.

DISCUSSION

We explored the role of emotional expression in newcomers' blogs and the resulting engagement of social networks, by using a text analytics approach on a dataset comprised of blogs written by newcomers to Canada and their subsequent responses. Results suggest that expression of emotion in blogs can facilitate access to social networks by increasing the amount of responses and triggering congruent emotional expressions within responses from blog readers, which is a precursor to affiliation and understanding (Hess and Fischer, 2013) as we discuss below.

We found that blog posts with more emotional expression had more associated responses, suggesting that emotional expression in CMC has the potential to facilitate access to social networks, which is a precursor to accessing resources in support of adjustment. The fact that posts with relatively more emotional expression stimulate more discussion is consistent with research on online leadership where it was found that forum posts that have more affect generate more responses (Huffaker, 2010). It is also consistent with the social sharing of emotion perspective (Rimé, 2009), which suggests that the expression of both positive and negative emotions stimulates the need to share and to discuss from both the sender (blog writer) and the target (blog readers) perspective. Therefore,

Proposition 1: Emotional expression in blogs will facilitate access to social networks

The fact that significantly more negative emotion is associated with more responses while there is no significant difference between positive emotion and number of responses could be a result of the negativity bias (Rozin and Royzman, 2001), which states that negativity elicits stronger and quicker responses than neutrality or positivity. Other research has found a similar effect associated with negative and positive emotion, where Facebook posts with high negative sentiment receive more

feedback relative to those posts that have higher positive sentiment (Stieglitz and Dang-Xuan, 2012). Thus,

Proposition 2: The expression of negative emotions in blogs will facilitate more engagement than the expression of positive emotions

Further, we found that discussions are more positive than posts, suggesting that responders are reacting to affective content and responding to those posts more positively. Research suggests that the expression of positive emotions can signal and promote affiliative intentions and strengthen the relationship between expresser and observer (Hess and Fischer, 2013, 2014). Discussants' expressions of positive emotions can also provide newcomer bloggers with emotional support, comfort, and enhanced feeling of empathy (Rimé, 2009). Thus,

Proposition 3a: Expression of emotions by bloggers promotes affiliative intentions by readers;

Proposition 3b: Expression of emotions by bloggers strengthens the relationships between bloggers and discussants

While overall discussions are more positive than posts, the relative amount of positive emotion in discussions increases as posts are more positive in tone and the relative amount of negative emotion in discussions increase as posts are more negative in tone. This suggests that emotional mimicry is occurring, which is evidence of increased social bonding between bloggers and responders (Hess and Fischer, 2013), and as a result increased affiliation and belonging. Emotional mimicry is part of a process that connects people together; something that is positive. Following this perspective, a negative event could occur and be expressed in a negative way, but the resulting potential mimicry would lead to affiliation and belonging which is positive. The result is also consistent with emotional contagion research, which posits that emotions expressed by a person or group influences the emotions of another person or group in a consistent direction (Schoenewolf, 1990), even in text-based communication (Kramer, Guillory, and Hancock, 2014; Hine, Murphy and Ambwani, 2010). Emotional mimicry and contagion are congruent responses that increase affiliation and belonging. Therefore,

Proposition 4: Emotional congruency in the blogging context can increase affiliation and belonging to the online community

Implications

This study suggests that bloggers need to be aware that meaning is communicated both by ‘how you say something’ as well as by ‘what you are saying’, a perspective put forth previously in the context of email (Kruger et al., 2005). Thus, the emotion words and phrases that are used in a post affect the blogging community members’ desire to interact (through participation in a discussion), and the choice and amount of emotionally expressive words in their responses. Organizations supporting and preparing newcomers for international assignment may need to include in their training elements of online communication to facilitate interaction in online communities as well as use this understanding in their own online communication.

The results of our study also suggest that those concerned with stimulating discussion with their posts may benefit from using emotionally expressive language as this is linked to higher levels of responses. Specifically, they should be aware that the use of negative emotion in their posts will have a greater likelihood of garnering responses than the use of positive emotion. While not intuitive, if the goal is to stimulate interaction within a blogging community, strategically using negative emotion words may be a viable strategy. For example, if a newcomer was blogging about their experiences at a local bank and their goal was to generate as much discussion as possible about others’ experiences, our results would imply that starting the blog post by saying “I was very frustrated and angry when I tried to setup my bank accounts today” as opposed to “Today I went and set up my bank accounts” that the first wording would generate more discussion. We see similar strategies used in attempts to engage community constituents in important policy decisions; by putting forth an initial proposal that will be knowingly perceived as negative, the level of community engagement is raised and usually a moderate solution emerges. However, this can result in collateral damage in social capital, so this approach needs to be considered carefully before proceeding.

This study has important implications for global mobility research and practice. The importance of social networks and social support has been long recognized in global mobility research (Farh et al., 2010; Stroppa and Spieß, 2011; Podsiadlowski et al., 2013; Van Bakel et al., 2017). Research on global mobility suggests that online technologies (e.g., forums, blogs, social media) play an important role in social networking, and access to online social support in the host country (Crowne and Goeke, 2012; Crowne et al., 2015; Mai, 2017; Authors, 2015). As technology changes the ways individuals access social networks and social support, it is imperative to better understand influences on these interactions. This study contributes to this growing body of knowledge by highlighting the importance of

emotional expression through written language in engaging in an online community of newcomers.

Limitations and Future Research

Our research is restricted to newcomers to Canada writing in English. We do not know if emotional expression would have the same influence in responses if blogs were written in other languages. Also, our sample is restricted to newcomers to Canada, a multicultural country that prides itself on its openness to other cultures. Newcomers to other countries may express different types and amounts of emotion in their blogs and discussions. Further research needs to explore the role of emotional expression on responses and support in other languages and contexts. Our current exploration of emotional expression in newcomers' blogs did not take into consideration the main topic or type of the blog post. Future research should explore the potential moderating role of blog type in the relationship of emotional expression between blog posts and discussions.

This research relied on a previously validated emotion dictionary that has shown high degrees of reliability across many studies. However, because this dictionary is generic, it lacks domain specific context and thus there may be 'emotional expression' that occur in our corpus that remain un-detected. This limitation has been acknowledged in previous research (Loughran and McDonald, 2011) and attempts at creating a standardized process for building domain specific dictionaries has recently been put forth (Deng, Hine, Ji and Sur, 2019).

We are excited about the possibilities of the application of text analytics to newcomers CMC endeavors. While this study focuses on blogging, there are many other sources of newcomer online content including host country discussion forums, twitter, facebook and other publicly available sources. Other text analytic dictionaries such as assessing text coherence and cohesion (McNamara et al., 2014) or communication vagueness (Hiller, Marcotte and Martin, 1969) could also be applied. Results from these techniques can be used as independent variables in a variety of other linear and non-linear predictive models. Other non-dictionary approaches such as topic modeling, co-occurrence analysis and machine learning could all be used to analyze newcomers' online corpora. As more and more newcomer content is posted online, text analytics holds great promise to add additional insight into this important domain of inquiry.

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ⁱ Technorati was Internet search engine specializing in searches of blogs, no longer in operation.

ⁱⁱ All blog posts and associated discussions were 'cleansed' before being analyzed. This involved correcting all spelling mistakes and removing any superfluous text that may impact the results, such as email addresses, hyperlinks, and standard headers.

ⁱⁱⁱ For all of the reported variables except 'emotional tone' in tables 4-6, mean amounts represent proportions of words in the category of interest.