

การสร้างเครื่องมือวัดระดับการแสดงอารมณ์ในสื่อออนไลน์ The Development of Online Emotion Expression (OEX) Measurement

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Abstract

Online emotion expression measurement (OEX) was developed to measure emotion use and expression in social network and other online spaces. The original version of this scale consisted of 10 items with two dimensions, wording & linguistics and perception about one's own emotion expression. Two hundred and forty participants who were college students were asked to fill in the questionnaire. Factor analysis and Cronbach's alpha were used to test validity and reliability of the tool. The researchers used the results from the analyses to determine remove one item and adapt the wordings in another item. The final version of OEX measurement was presented in the study.

Keywords : Emotion Expression, Social Network, Measurement

บทคัดย่อ

เครื่องมือวัดระดับการแสดงอารมณ์ในสื่อออนไลน์ (OEX) ได้ถูกพัฒนาเพื่อวัดระดับอารมณ์และการแสดงออกในสังคมออนไลน์และการใช้งานอินเทอร์เน็ตอื่น ๆ เครื่องมือวัดต้นฉบับมีจำนวน 10 ข้อ ซึ่งประกอบด้วย 2 มิติย่อย คือ การแสดงอารมณ์ทางภาษา และการรับรู้เกี่ยวกับการแสดงอารมณ์ของตนเองของผู้ใช้งานสื่อออนไลน์ นักศึกษามหาวิทยาลัยจำนวน 240 คนได้ให้ข้อมูลเพื่อทดสอบเครื่องมือวัด การวิเคราะห์หาค่าความเชื่อมั่นและความเที่ยงใช้วิธีการวิเคราะห์องค์ประกอบและสัมประสิทธิ์แอลฟาของครอนบาค และสืบเนื่องจากการวิเคราะห์ ผู้วิจัยได้ลบเครื่องมือวัดออก 1 ข้อ จึงเหลือ 9 ข้อ และได้ปรับภาษาที่ใช้ในข้ออื่น ๆ บางข้อ ซึ่งเครื่องมือวัดที่ปรับแก้แล้วได้ถูกนำเสนอในบทความ

คำสำคัญ : การแสดงอารมณ์, สังคมออนไลน์, เครื่องมือวัด

Introduction

Most people use social network to communicate to others and the social networks that are popular in Thailand are Facebook and Line (Jaihan & Phisalpong, 2017). They could use social network as medium to transfers their knowledge, message, emotion, and opinions to others and also receive which from others, too (Phoovatis, 2015). In Thailand, internet provider companies have increasingly improved their systems all the time (Thongchawna & Phrakrusudhikhampirayana Thongpan, 2017). This yields the business to use it to gain more marketing revenue (Jarurat, 2014). Social network does not only about the tangible objects, like money or network system, but it could be also about users' behavior and their attitude. Similarly, online advertising was

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2 แขนงวิชาภาพยนตร์ คณะวิทยาการจัดการ มหาวิทยาลัยราชภัฏสวนสุนันทา

designed to be more interactive (Chobdamrongtham, Adisornprasert, & Yansomboon, 2011). To exposure to contents in online space over the certain level could bring about the problem, in young adolescents, such as addiction and health problem (Wonganantnont, 2014). Moreover, the more time an individual spends online, the less time one has for real-world contexts (Ansongkhram, 2013). Therefore, the current study aims to construct a measurement to indicate the amount of emotion that social network users disclose in online space.

Emotion uses in internet has been explore in the area of cyberbully and trait aggressiveness (Bekiari & Pachi, 2017). Indirect aggressiveness refers to the verbal communication that is used for blaming, bullying, railing, and also persuading others to leave the cyberbully victim alone (Coyne & Archer, 2004). There might be a myth from Thai soap opera that women are very expert in verbal and indirect aggressiveness, but in fact, both genders have the same level of it (Coyne & Archer, 2004). Website and social network application are not only the place to express the existing emotion, but it could cause emotional experience on the users, too. Likewise, media could drive people to commit suicide, not only to make them depress but also provide them the simple method to do it (Baymukhambetova, Ogiyenko, Ibrayeva, Nurmagambetova, Kovsh, & Shilov, 2017). Fortunately, Kongrach (2011) found that many Thai young adults had digital literacy skills to scene out what they should not believe. In some research studies, positive side of emotion used in online space was discussed. Media fans, for instance, show their happiness and respect toward their favorite TV shows or films (Arunrangsiwed, Komolsevin, & Beck, 2017). To express negative emotion in online space could also bring other friends to help solve the individual's life problem (Arunrangsiwed & Puxtaran, 2017). In the study of Theocharis and Bekiari (2017), verbal aggressiveness measurement was constructed, but no one had constructed emotion expression scale, especially for using in online contexts. Hence, the current study would construct the particular scale and test its validity and reliability. This would benefit future studies that investigate the emotion used in social networks.

Literature Review

1) Social network

People are likely to use social network whether they work in professional fields or as general worker (Senkaew, 2017). This leads many researchers to explore the effect of social network uses. Perceived good will, honesty, and emotion in social network communication could benefit the relationship of investment advisors and investors (Tattapan & Jiyajan, 2017). Social network system could be used to broadcast live streaming news regarding sport events, which helps entertainment in sport fans (Punpong, 2016). Some men also used social network to post their muscle, which is the way to strengthen their own perceived masculinity (Wisetsri, 2017). These mentioned studies could point out that social network could sent some effect on its users, and could lead to the users' behaviors that have never existed in the world before social network era. Therefore, emotion expression in social network should be studied.

2) Emotion

Emotion is the topic that has been explored in various fields, such as psychology, media studies, and technology uses. Emotion use could perform as the predictor in life satisfaction,

self-esteem, and also self-motivation (Panjiang, 2013). Positive emotion could be diminished when media audiences found the violence in their favorite text (Arunrangsiwed, Teerawatworakun, Poontin, Seedoung, Panyaram, Bunyapukna, & Cheachainart, 2017).

Negative emotion could be heightened when there is the change in familiar technology (Arunrangsiwed, 2017). The emotion expression could be developed in adolescent age by family and teacher-student communication (Isaranurug, 2006). There are many types of emotions mentioned in the study of Küblbeck & Ernst (2006), Kao & Lee (2006), and Chumkamon & Hayashi (2014), which are anger, happiness, anxiety, sadness, excitement, frightening, disgusting, and boring. The researchers of the current study would construct the measurement to indicate the emotion expression in general, so it could be applied to use in many fields.

Method

Ten-item scale was developed to measure the level of expressed emotion in social network communication. This scale has two dimensions, and is named, “Online Emotion Expression” scale (OEX). The first five items were to measure the emotion expression by wording or linguistics, for example, how the people use “!” symbol for many times in one sentence. For the sixth to tenth item, the contents in items directly refer to their own perception regarding emotion used in their social network posts, which is similar to general scale used in the area of social science and psychology. All items were 4-point Likert scale (1 = disagree; 2 = somewhat disagree; 3 = somewhat agree; 4 = agree).

The researchers collected the data by using paper questionnaire. Two-hundred and forty participants were conveniently selected from five universities in Bangkok metropolitan area. Because the questionnaire had to be completed by social network users, the researchers choose to use university students as samples. On top of the questionnaire, the participants were informed that during they were filling in the questionnaire, they need to think about the time that they use social network.

After the data collection process, all participants’ answers were typed into the spreadsheet and analyzed by using a statistic package in the computer lab of Suan Sunandha Rajabhat University. Factor analysis and Cronbach’s alpha was used to determine if the measurement could be used in future research studies.

After the analysis, the researchers would consider the research results based on the following assumptions:

Table I. Assumption for validity and reliability test

Statistic	Assumption
Cronbach’s alpha	> .600
KMO	> .500
KMO significance (p-value)	< .050

Statistic	Assumption
Determinant value	> .00001
Extraction	> .300
Correlation between items	< .800

Result

To test validity and reliability of the constructed scales, the researchers have to determine if the results do not violate any assumption. Firstly, Cronbach’s alpha of the online emotion expression scale is acceptable, which is .766. The researcher also analyzed Cronbach’s alpha of both dimensions, wording and perceived self-emotion-expression, and found that they are .608 and .728, respectively.

Next, KMO value does not violate the assumption which is at least 0.5. KMO value of this scale is .822 ($p = .001$). The determinant value is .156, which is also acceptable and shows that some variances of each item are overlapped with one another. For the correlation between items which should be less than .800, none of the paired items exceed this assumption, which means that the researchers do not need to consider removing any item out. The correlation is range from .026 to .454.

For the extraction value, one of the item has this value less than .300, which is the item #4 (Extraction = .238). The content in this item is “I use the symbol ‘!’ very often.” Therefore, this item should be removed from the scale.

The last part of the current analysis is to check if the components in actual scale are similar to the dimensions drawn by the researchers. The researchers constructed the scale to consist of two dimensions, 5 items for each dimension. However, the result of factor analysis is different from the expectation. Almost all of the items seem to be in the same component, but the third item. The content in this item is “I like to use a moderately-rude word in social network.”

Table II. Original scale with extraction value and component

Items	Extraction	Component #1	Component #2
1st dimension: wording & linguistics			
1. I like to spell the words from sound, like Argh, Ahh, Wa Wa Wa, Booooo.	.465	.620	
2. I usually repeat the same word many times in a post.	.363	.539	
3. I like to use a moderately-rude word in social network.	.612		.699
4. I use the symbol “!” very often.	.238	.451	

tems	Extraction	Component #1	Component #2
5. I generally write some words to represent the laughing, such as LoL, LMAO, HaHa, etc.	.337	.535	
2nd dimension: perception about one's own emotion expression			
6. I like to describe my own emotion in my post.	.562	.636	
7. When I post something in social network, I am very serious.	.455	.553	
8. When I am happy, I would express my positive feeling in to my own post or comment.	.533	.715	
9. Social network is a very good place for me to express my angriness.	.565	.651	
10. When I post my photos in social network, I usually have a facial expression.	.360	.596	

Table III. Results of factor analysis and Cronbach's alpha

Statistic	Values
Cronbach's alpha	.766
KMO	.822
KMO significance (p-value)	.001
Determinant value	.156
Extraction	.238 - .612
Correlation between items	.026 - .454

Discussion

Based on the result of factor analysis, it suggests that the 4th item of OEX should be removed from the measurement. Therefore, the final version of the measurement consists of 9 items. another diagnose is that the dimensions set by the researchers do not match the components suggested by the statistical analysis. This means that the researchers need to rewrite the content in the third item, which is the only item being in another component. The suggestion is to add more detailed description in parentheses, such as “moderately-rude words are Fuckin’ awesome, Holy shit/crap, This is bad ass, You’re so damn cute, etc.” The examples should be flexible depend on the language that this measurement got translated into. Like, in Thai version, the example should be โคตรเจ๋ง (super cool) or โหดส์ต (the strong expression to something more-

than-enough).

The researchers hope that the OEX measurement could be used in various areas of social sciences, communications, and psychology. Emotion expression could be both positive and negative. Strauss (2012) believed that emotion expression of students in school could help teachers to understand more about their students and be able to solve the problems on time. Positive emotion expression in social network could also encourage other users, and negative emotion expression would also allow others to help and heal the particular user's pain. Without emotion expression, people might face the repression, depression, and suicidal thought. The OEX measurement allows future studies to investigate this variable and connect it to other variables to contribute more to the knowledge and theory in social sciences and communications. The final version of the measurement is shown in the appendix of this paper.

Appendix

Final version of Online Emotion Expression (OEX) Measurement

1. I like to spell the words from sound, like Argh, Ahh, Wa Wa Wa, Booooo.
2. I usually repeat the same word many times in a post.
3. I like to use a moderately-rude word in social network (for example, fuckin' awesome, holy shit, holy crap, bad ass, damn hot).
4. I generally write some words to represent the laughing, such as LoL, LMAO, HaHa, etc.
5. I like to describe my own emotion in my post.
6. When I post something in social network, I am very serious.
7. When I am happy, I would express my positive feeling in to my own post or comment.
8. Social network is a very good place for me to express my anger.
9. When I post my photos in social network, I usually have a facial expression.

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