Wellbeing Effect of Social Media Postings Analysis Using Rasch Models

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Abstract. Social media usage is a highly developed research in the last decade. This media impact is positively related to the marketing process, communication, politics, news and the other latest information. However, the sharing of personal life, feelings or problems will affect the state of mental health (wellbeing). This study examined the effect of social media use to the condition of psychological wellbeing after the activity was performed. The research data was collected using ZSAI inventory (Zadrian Social-Media Addiction Inventory) with the sample consists of 326 people. Data analysis was performed by using Rasch model analysis. The analysis on the research results shows that there is a significant relationship between the usages of social media with the condition of individual subjective well-being. The users feels more comfortable and happy when the content that they shares through social media gets positive responses from others, feeling "empty" if cannot access social media in period of time, the needs to express personal feelings/problems on social media. Nevertheless, the social media users tend to feel addicted and lost productivity by using it.

Keywords: Social media, Wellbeing, Rasch Analysis, Addiction

1   Introduction

Communication through technology has created new phenomena in the world of psychology and communication. One technology with significant impact is the internet [1]–[4]. The existence of the Internet indirectly gave birth to a new generation of digital, also called Generation Ne (xt) or Digital Generation [5].

The Internet comes by offering a variety of conveniences in communications and improvised connections over time. The ease of sharing content and data has been very easy in the last decade [6], [7]. Based on Internet World Stats data in 2012 it was found that active internet users in the world are 2,405,518,376 people which in this case represents a significant increase of 544% when compared to 2000 [2], [3], [8]. When reviewed the data, within a month some of the accessed internet content comes from Facebook, Youtube, Google+, Twiter and LinkedIn [3].

Based on the study of internet users of the world, the use of the internet in the past few years focused more on the use of social media. This is evidenced by 86% of internet users in the United States and 79% of users coming from Europe are active social media users, while in Indonesia alone from 63 million active internet users, 95% of them are active social media users [7], [8]. The exposure of these statistics corroborates the evidence that the internet is a new

medium in the process of communication and socialization conducted by the community. Most Internet users take advantage of social media as a means to connect with colleagues, family and so forth.

Social media that developed rapidly serve as a medium to present themselves and connect with other users by carrying different concepts. Recent studies suggest that social media serve as a medium for sharing personal information, personal life, knowledge, professional life / work, etc. [3]. In addition, through social media, users can also get certain psychic support related to their condition [1], [3], [9]. This happens when the user uploads his / her condition (on many social media platforms also called post / post process) through social media and is responded by other users and anonymously. However, it is not uncommon to find misconduct in social media, such as unauthorized disclosure of information (such as uploading pornographic content, sadism, etc.), cyber bullying, internet addiction, risky behaviors and contact with hazardous communities [10].

If viewed from the user, social media is mostly used by people with productive ages [11]. Social media is widely used by the young generation, which in this study focuses on students in interacting with their environment. Having an account in social media is a common practice for students [12] and is generally used to present themselves, socialize, communicate and the like.

Access to social media from the younger generation in general make this activity as a means to express the condition of self, expression and other similar things [13]–[15]. Even some of these activities are related to individual mental health conditions, such as mood changes, individual motivations and perceptions. High social media usage activities can also trigger individuals experiencing dependence and disruption in everyday life [16]–[18].

This article discusses the effects of using social media for individuals on the well being condition, and then viewed from the gender and domicile. The next condition that discussed is the tendency of addiction and psychological effects that can be generated from the use of social media.

2 Method

The population of this study comes from all students of Universitas Negeri Padang consists of eight faculties. Samples were taken taking by the group of each faculty which consist of 326 people. In general, the demographics of the study sample consisted of 62.27% women and 37.73% of men, 45% from rural areas, 26.38% of small towns, 15.03% of cities, and 13.50% of the capitals. The research data were collected using ZSAI inventory (Zadrian Social-Media Addiction Inventory) with Alpha Crobach 0.91. ZSAI items were scored by using Likert scale type in range of 1 to 5 points. The data of this study was processing by using Rasch Models Analysis and Winstep version 3.73. Differences in the use of social media related to individual wellbeing are described using inferential statistics using student-t and Pearson Correlation.

3 Result and Discussion

Demographic analysis and social media usage conditions are needed for holistic user interpretation. Based on the data, there are the frequency conditions of respondents in accessing social media based on Table 1.

Table 1 Frequency of accessing social media and posting in a day

		Men	Women
Duration	≤ 1 hour	13.01%	4.93%
	2 – 4 hour	28.46%	31.53%
	5 – 7 hour	33.33%	40.89%
	8 – 11 hour	16.26%	14.78%
	≥ 12 hour	8.94%	7.88%
Post/Day	Never	29.27%	11.82%
	Once	43.90%	53.20%
	2 – 3 times	22.76%	30.05%
	4 – 5 times	3.25%	4.93%
	≥ 6 times	.81%	.00%

Table 1 shows that women generally spend more time using social media more than five hours a day, and more than half (58.20%) share content in the form of posting on social media at least once a day. While the more dominant males have duration in accessing social media under 4 hours in a day and generally do posting once a day. The data shows that the duration of frequency is related to the number of post on social media every day; the higher the duration of access each day will increase the number of posts.

The high duration of social media access becomes one of the indicators of the psychological effects that can be caused afterwards [19]–[21], which effect can be in the form of addiction [22], [23]. In detail, the effects on social media post are presented in Table 2.

The most obvious effect given by social media activity is the presence of happiness when there is a positive response to the shared content (item 5) with a logits value of -1.38, which means that respondents generally "feel good" about other users' responses to their content. Another condition that needs to be considered is the feeling of "emptiness" if in some time the user cannot access the social media (item 2) thus affecting the condition of wellbeing. The same thing happens when an individual receives a negative reply to the content that they share on social media.
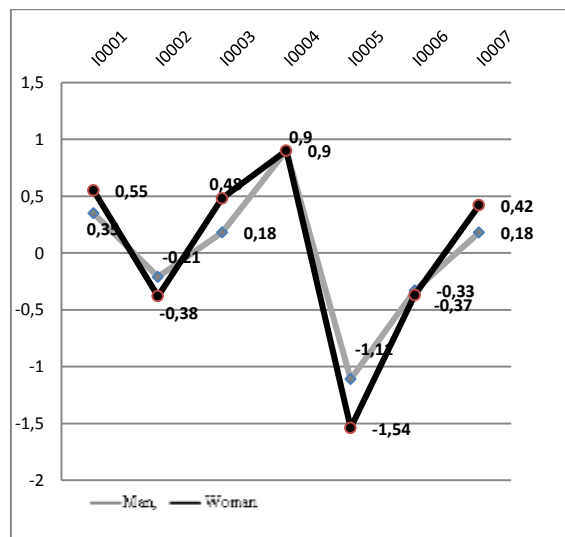
Table 2 Activities in Social Media Relating to the Individuals Wellbeing Conditions

Item	Total Score	Item Measure (Logits)
Feel uncomfortable when cannot update a post (i-4)	604	.90
The desire to always look perfect on social media (i-1)	681	.47
More comfortable sharing personal feelings/problems in social media (i3)	703	.36
Upset if disturbed while accessing social media (i-7)	695	.33
Life feels "empty" if not access social media (i-2)	836	-.32
Disrupted when receiving negative comments on social media (i-6)	843	-.37
Feel happy when getting a lot of	1063	-1.38

"like" on social media (i-5)

When seen from gender differences in social media usage activities related to wellbeing conditions are presented in Graph 2, there are variations in social media usage activity seen from gender, in some aspects men are more likely to have high activity, as well as women.

A very significant condition is seen in the feeling of happiness if the content shared has many positive responses, and this is more likely to be experienced by women, which is women in logits (-1.54) and men with logits (measure) -1.54. However, both men and women find it difficult to feel uncomfortable if they cannot share content through social media. The same thing also happened when receiving negative comments on social media, where both men and women would like to feel uncomfortable with it. On the contrary, contrasting results are shown in behavior to share the personal feelings/problems through social media which is more likely to be performed by women than men.
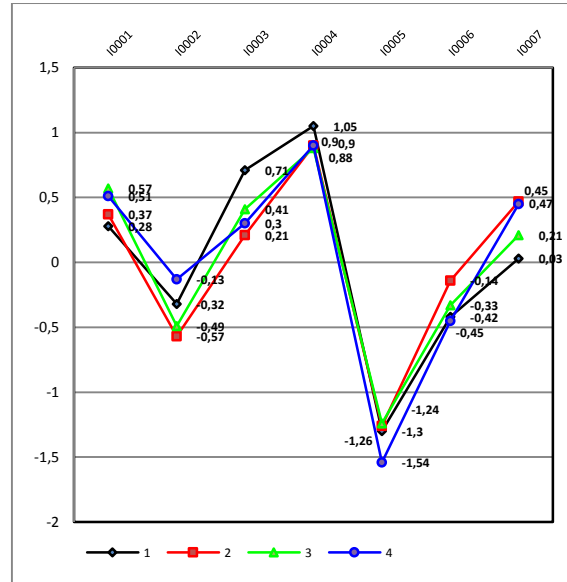

Graph 1 The Differential Item Functioning (DIF) of the use of social media related to wellbeing condition based on Gender

The subsequent analysis was conducted on the wellbeing conditions of individuals that related to activities in social media based on their domicile [24]–[27]. The significant difference in the use of social media that affects the wellbeing conditions of an individual is at expressing the personal feelings/problems through social media and feelings of happiness when the content being shared gets a "like" response. In general, individual wellbeing conditions that are influenced by activities in social media vary, both in terms of gender and from user domicile.

Users who come from cities tend to be reluctant to express the personal feelings openly through social media when compared to users of other domiciles. Another striking condition lies in the feeling of happiness after getting a positive response from content shared on social media, which the users who live in the rural area/village are happier than others. Distribution of wellbeing conditions in relation to activity in terms of domicile can provide a general overview of the distribution of social media users' demographics and their relation to psychological effects [28], [29]. The continued effect on wellbeing conditions from those obtained from this analysis

is with regard to the contribution of content shared on social media to users based on their domicile clusters [24], [28], [30].

Graph 2 The Differential Item Functioning (DIF) of the use of social media related to wellbeing condition based on Domicile

The strong condition of variability and the distribution of individual wellbeing conditions in activity in social media are also evidenced by testing the mean differences in Table 5.

Table 3 Differences in well conditions of social media activity based on Domicile

Analysis	F	Sig	t	df	Sig
wellbeing condition	7.432	.007	.921	231	.358

3.1 The Tendency of Social Media Addiction

The high liveliness of respondents in using social media is then used as an assumption to see the contribution of their use to the well-being condition of the respondents [25], [31]–[33]. Table 4 shows that the significant relationship between social media use behavior and the well-being condition of the respondents after the activity.

Table 4 contributions of social media posting with individual subjective well being condition

Analysis	r	Sig.

	Pearson Correlation	.577	.000

A significant relationship between the level of activity of social media usage and the individual wellbeing condition is one of the key factors. Changes in self-atmosphere such as happiness, emotional control, self-disclosure, and mood are some important things to note due to the use of social media [26], [28], [31]. This is reinforced with the fact that the duration of social media usage by the respondents is high. There are strongly predicted that there is a tendency to use social media in order to maintain mood, the need to share, the need to hear, the need of self actualization of social media users.

One of the important aspects of this diagnosis is the fact that the "emptiness/hollow" condition that the user can experience if they cannot access social media for a certain period of time. This fact is an important indicator in classifying individuals has experienced addiction conditions [27], [34]. Other conditions are individuals who cannot accept comments or unexpected responses that may affect the user's mood.

The tendency and diagnosis of addiction is an important key to studying the contribution of social media use to individual wellbeing [27], [35]. The further effects that can be caused by the use of social media, especially excessive use can be the focus of other findings.

4   Conclusion

The analysis of the research results shows that there is a significant relationship between social media use behavior with the condition of individual subjective well-being. Individuals tend to feel more comfortable and happy if the post or content that he shares through social media get many responses from other users. This suggests that there is a need to be recognized and noticed through social media. The right proportion in the use of social media will make this activity one of the tension-releasing activities in everyday life, but excessive activity (the duration of access time is too long) will make individuals within the category of addiction [36]–[38].

There is considerable variability in the use of social media that related to wellbeing conditions when viewed from gender and domicile. The dominant diversity is related to the desire express the personal feelings in social media and mood conditions that could disrupted if the users cannot access social media.

The diagnosis of addiction can be known through an analysis of the behavior of social media access in depth. This is evidenced by the condition of individual dependence on social media in improving the mood, the need to express the personal feelings and the need to self-actualization. In-depth attention and analysis are needed to see in what extent the use of social media can be categorized as addictive and interfere with the user's daily effective conditions. Psychotherapy and counseling services are also needed for users who are indicated to be addicted [39].

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