

Social media campaigns on disability awareness: A content analysis of official government Twitter accounts

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Abstract

Increasing the public's awareness of disabilities is arguably one of the most important steps in removing social and environmental barriers facing individuals with disabilities. Increased awareness also encourages disabled persons to be more socially, physically, and spiritually active. However, most research in this area focuses on improving knowledge about disabilities, attitudes towards disabled individuals, and the acceptance of disabled individuals by their peers in the classroom. The advent of social media promises new opportunities to educate more people. The objective of this article is to provide an initial assessment of Twitter, a social media platform used by the Indonesian government to promote disability awareness. The sample includes 45 official accounts, and the posts were coded into 15 categories and 5 media types. Moreover, metrics of engagement for each category were also computed. The results show that infographics and videos were the media types that were used most frequently. The government posted frequently about new regulations, but the content did not receive a high level of engagement. The study also found significant differences between levels of engagement with posts in each content and media category. This study aims to help

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practitioners and academics to facilitate effective promotion of disability awareness via social media.

Keywords: Social media; Disability awareness; Campaign; Government; Indonesia.

1. Introduction

Social media offers a wide range of benefits to its users. It comprises various forms of internet-based communication, which are easy, affordable, and can overcome geographical distance (Korda & Itani, 2013). Social media applications intend to empower their users to create, associate, work together, and share in the process of creating as well as consuming content (Obar & Wildman, 2015). For over a decade, social media has filled in as a stage for making and distributing content. Furthermore, it is a spot where content can be “constantly altered by all users in a participatory and community-oriented style” (Kaplan & Haenlein, 2010). Social media makes it possible for people from various groups to interact using the platform; individuals can exchange information and subsequently engage in discussion. It has been shown that social media use can increase individuals’ participation in discussions revolving around politics and policy. Kim & Chen (2016) found a strong relationship between the use of social media and political participation in a study that also confirmed that age, gender, education, ethnicity, and income do not affect the social media activity of a person.

Social media also allows all groups of people to become involved in policy discussions. Social media also manages to encourage people to participate in the process of policy planning. A study conducted on transportation planning in Texas confirmed that social media is an efficient and effective platform for involving community members in the process of policy making (Majumdar, 2017). In the medical world, social media is used to promote health and target changes in the behavior of particular groups. Social media is an effective tool in influencing individuals’ behavior and knowledge about healthy lifestyle choices (Korda & Itani, 2013). In addition, Murray, Burns, See, Lai and Nazareth (2005) have shown that social media is able to improve user knowledge, social support, and clinical outcomes.

Researchers view social media as an opportunity for the government to promote disability awareness within society. Disability awareness is characterized by a positive attitude towards, and strong empathy for, those with disabilities (Foley, Tindall, Lieberman, & Kim, 2007). The delivery of disability awareness has three main objectives: understanding the challenges faced by disabled individuals, helping to eliminate the negative attitudes towards disabled individuals, and eliminating negative beliefs that become

obstacles to a person with a disability (Columna, Lieberman, Arndt, & Yang, 2009).

The importance of teaching disability awareness has made this subject attractive to researchers. Various researchers have tried to elucidate an effective way of teaching to improve knowledge on disability awareness. Based on a review of the literature, material for this purpose is delivered through social interaction (Piercy, Wilton, & Townsend, 2002; Barrett & Randall, 2004), simulation (Pivik, McComas, Macfarlane, & Laflamme, 2002; Hutzler, Fliess-Douer, Avraham, Reiter, & Talmor, 2007), curriculum (Martinez & Carspecken, 2006; Holtz & Tessman, 2007), and multi-media curriculum (Watson, Otey, Westbrook, Gardner, Lamb, Corrigan *et al.*, 2009; Adibsereshki, Tajrishi, & Mirzamani, 2010). Unfortunately, these previous studies have focused solely on the delivery of material regarding disability awareness in the classroom, to communicate the rights and obligations of persons with disabilities as a part of that classroom. Therefore, a disability awareness campaign targeted towards a larger group of people that aims to improve their understanding about these matters is required.

Social media provides a great opportunity to promote disability awareness amongst a wider target audience. The researchers argue that social media is an effective method of promoting disability awareness to broader society. Government, through their official social media accounts, can publish content related to the rights of persons with disabilities. The government can also make use of various features of social media, such as hashtags, to promote this content.

This paper aims at identifying government strategy used to promote disability awareness via social media. Specifically, this paper offers an empirical description of the government's campaign strategy used to promote disability awareness through social media. Specifically, we will classify tweets into certain categories. We will also identify the popularity of content that falls into different categories and types of media (text, link, video, infographic, photo and picture) attached to the posts by using a stakeholder engagement index.

The first section of this study provides background information containing scientific arguments on the importance of establishing a strategy to raise disability awareness in the digital era. The next section contains a review of the existing literature relating to this topic. In the following sections, a framework to analyze the disability awareness campaign carried out by the Indonesian government through their Twitter accounts will be

described. The research methods will be described, followed by the results of the study, and finally, a discussion of the research as well as conclusions drawn.

1.1. Research on campaigns for disability awareness

Studies on media usage by disadvantaged groups of citizens are conducted to understand the benefit of social media as a means of sharing information between its users. In the past, researchers have specifically focused on groups such as the elderly (Pimmer, Chipps, Brysiewicz, Walters, Linxen, & Gröbhiel, 2016), teenagers (Olumide & Ojengbede, 2016; Stevens, Gilliard-Matthews, Dunaev, Woods, & Brawner, 2017), parents (Love, Sanders, Turner, Maurange, Knott, Prinz *et al.*, 2016), children (Weinmann, Radon, Sukalla, Gerlich, Barth, Novak *et al.*, 2018), and diabetics (Ruddock, Poindexter, Gary-Webb, Walker, & Davis, 2016). So far, there have been no studies that have analyzed the role of the government in sharing information on disability awareness through social media. At this time, the body of research is more focused on the delivery of materials relating to disability awareness in a classroom setting.

Studies by Barrett and Randall (2004) and Piercy and colleagues (2002) have reported the impact and effectiveness of social interaction between a person with disabilities and their able-bodied peers. According to the researchers, this interaction improves the acceptance of persons with disabilities in a classroom environment. The results of both studies show that the method of social interaction can improve the attitudes of non-disabled persons toward persons with disabilities. Studies by Hutzler and colleagues (2007) and Pivik and colleagues (2002) focused on a simulation method to improve the awareness of non-disabled persons. Pivik's group (2002) aimed to assess the effectiveness of a virtual reality game to educate students on accessibility and attitude barriers, while Hutzler's group (2007) examined the impact of an elite wheelchair basketball game on children's behaviors towards persons with disabilities. Both found that a simulation method can improve the knowledge of children about individuals with disabilities.

The use of curriculum as a form of intervention of able-bodied students' attitudes towards students with disabilities was the focus of studies by Holtz and Tessman (2007) and Martinez and Carspecken (2006). Holtz and Tessman (2007) examined the effect of viewing an educational video on Tourette's syndrome on the behaviors and knowledge of children, while

Martinez and Carspecken (2006) observed students' behaviors before and after implementation of a disability awareness program. Both showed the same result, that is, curriculum can change the behaviors, knowledge, and attitudes of able-bodied students towards disabled students.

The last group consists of studies that highlight interventions with multi-media curricula (Watson *et al.*, 2009; Adibsereshki *et al.*, 2010). Adibsereshki and colleagues (2010) examined the effectiveness of a multi-media program to improve social acceptance of students with physical disabilities. The authors concluded that this method can increase the acceptance of students with physical disabilities within the class. Watson and colleagues (2009) conducted a study to evaluate the impact of print- and web-based activities to facilitate teaching of disability awareness, mainly surrounding students with mental illness. The results showed that this intervention had a small but significant impact.

1.2. Social media and citizen engagement

The presence of government in social media is believed to give various benefits to the government. Those benefits are to improve efficiency and productivity (Kuzma & Wright, 2013), improve participation of the individuals in making policy (Bertot, Jaeger, & Hansen, 2012; Bonsón, Torres, Royo, & Flores, 2012), strengthen the local democracy (Ellison & Hardey, 2014), and allow for collaboration between actors (Chun, Shulman, Sandoval, & Hovy, 2010).

Some of these benefits have been confirmed by Sandoval-Almazan & Gil-Garcia (2012), who examined the ability of social media to improve individuals' political participation. Furthermore, social media use is also an appropriate means to increase public awareness of politics (Hong, Lee, & Suh, 2013); social media can empower the public through research (Gao, Waechter, & Bai, 2015). Lastly, social media has been shown to increase public trust in government (Meijer, Koops, Pieterse, Overman, & Ten Tije, 2012; Krishnamurthy, 2016).

The function highlighted in this study is the use of social media to increase public participation. Kaplan and Haenlein (2010) defined social media as an internet-based application which is a framework of the presence of Web 2.0, and allows users to share content that they create. These features are known as co-creation functions; Web 2.0 allows users to collaborate, connect with each other, and share content (Chun *et al.*, 2010).

2. Methods

This research observed 45 official government accounts that consist of ministries and non-ministry institutions. The researchers used the keyword “disability” to find tweets related to disability awareness campaigns. After observation, 20 accounts that discuss disability awareness campaigns were found. Tweets in this study were collected automatically using the assistance of Nvivo application. Utilizing automatic processes requires accuracy and caution to avoid various difficulties in the process of data analysis (Lewis, Zamith, & Hermida, 2013). Therefore, this study uses a combinatory approach which combines the automatic data collection and manually coding. The coding and analysis are also conducted with the assistance of Nvivo.

The coding process began by importing the dataset into the Nvivo application. As stated previously, this study aims to contribute to theory development by identifying concepts or categories of information that the government shares through social media by conducting an “analytic generalization” (Yin, 2014). This study uses a content analysis method to interpret content shared by the government through social media (Krippendorff, 2013). Specifically, the collected tweets are grouped into certain themes without prior hypotheses. This is done to reduce the subjectivity of the researchers in interpreting information. The coding process was initially conducted by the author. Next, the data enters the second and third rounds of the coding process to ensure reliability. This process is assisted by two people who are not affiliated with this study.

In addition, this study used an index of social media engagement (Bonson, Royo, & Ratkai, 2014) to measure the degree of engagement with certain categories of posts and types of media attached to posts (Tab. 1).

Table 1 - Calculation of the stakeholder engagement index

Concept	Symbol	Formula	Details
Popularity	P1	Post ‘liked’/total posts	Proportion of posts with ‘likes’
	P2	Total ‘likes’/total posts	Average ‘likes’ per post
	P3	$(P2/\text{number of followers}) \times 1,000$	Popularity of posts among followers
Commitment	C1	Posts with comments/total posts	Proportion of posts with comments
	C2	Total comments/total posts	Average comments per post
	C3	$(C2/\text{number of followers}) \times 1,000$	Followers’ engagement

	V1	Posts shared/total posts	Proportion of shared posts
Virality	V2	Total shared/total posts	Average of posts shared
	V3	$(V2/\text{number of followers}) \times 1,000$	Virality of posts among followers
Engagement	E	$P3+C3+V3$	Stakeholder engagement index

3. Data Analysis

3.1. Tweeting about disability awareness

A summary of the contents of disability awareness posts shared by official government social media accounts is presented in Table 2. From the 45 social media accounts observed, we found 20 accounts discussing disability issues. Those 20 accounts shared 184 posts about disability awareness.

Table 2 - Contents of posts related to disability awareness campaigns

Categories	Percentage	Engagement
Regulation of the rights of persons with disabilities	21%	.033017
The right to obtain proper jobs	19%	.086146
Procedure to interact with persons with disabilities	18%	.095081
Policy for persons with disabilities	8%	.016517
Disaster	7%	.012556
Sports	7%	.043073
Congratulatory	5%	.042166
Self-development	5%	.006348
Messages of equality	4%	.040806
The right to information and communication	2%	.025693
Political rights for persons with disabilities	1%	.009068
Tourism	1%	.004534
Education	1%	.086146
Other social protections for persons with disabilities	1%	.04534
Transportation	1%	.02267

Content shared by the government through their social media accounts included regulations on the rights of persons with disabilities, the right to obtain decent jobs, interaction with persons with disabilities, policies relating to persons with disabilities, disasters, sports, congratulatory messages, self-development, messages of equality, the right to information and communication, the political rights of persons with disabilities, tourism, education, social protection for persons with disabilities, and transportation. The three most common topics were regulations on the rights of persons with disabilities, the right to proper jobs, and methods to interact with persons with disabilities. Meanwhile, the least common topics were the political rights of persons with disabilities, tourism, education, social protection for persons with disabilities, and transportation.

After calculating the relative percentage of each type of content, the popularity of these categories was calculated by using a stakeholder engagement matrix (Bonson *et al.*, 2014). As seen from the levels of engagement in Table 2, the content with the highest level of engagement discusses ways to interact with persons with disabilities, followed by their right to obtain a decent job as well as education. Low-engagement content included the political rights of persons with disabilities, self-development, and tourism.

To attract audience attention, posts are usually accompanied by media. Table 3 represents the media types which were attached to the posts analyzed in this study. Five types of media were found in the analyzed posts: text, hashtags, infographics, photos, and links. The most common media type is text, followed by hashtags and infographics. Links were the least common type of media used.

Table 3 - Media types used in disability awareness campaigns

Media	%	Engagement
Text	39%	.022732
Hashtag	25%	.07836
Infographic	20%	.089332
Photo	9%	.049591
Link	7%	.014997

Each type of media has its own levels of engagement. In this case, these levels indicate which types of media are preferred by society. The results indicate that people prefer posts with infographics, followed by posts with hashtags and photos. Meanwhile, posts with links demonstrated the lowest level of engagement. In addition to posts with links, individuals engage the least with text-only posts.

4. Discussion

This study aimed to provide an overview of an alternative method for a disability awareness campaign: social media. Social media promises – and has been shown – to increase public participation (Haro De Rosario, Sáez-Martín, Caba Pérez, 2014). In fact, a study by Johannessen and colleagues found that social media is a mode of communication used by the public, politicians, and governments (Johannessen, Flak, & Sæbø, 2012).

In the midst of a wider search for methods of promoting disability awareness to the general public (Clark, 2015), this paper attempts to provide empirical evidence on the use of social media for disability awareness campaigns. It does so by providing an overview of its use by official government accounts in Indonesia, in the belief that social media can become a powerful tool in the campaign for disability awareness.

The results showed that of the 45 accounts observed, only 20 accounts actively campaigned for disability awareness. Furthermore, only .059% of the overall posts of these 20 accounts discussed about awareness. This suggests that social media, as a platform for promoting disability awareness, has not yet attracted the attention of the government.

Regarding the various types of content distributed, it was found that the government tends to distribute content pertaining to certain regulations, such as Law No. 8 of 2016 on Persons with Disabilities. A campaign on the equal rights of persons with disabilities in obtaining employment and decent salaries was the second most common topic of the social media posts. Thirdly, some government social media accounts attempted to educate the public on how to interact with person with disabilities.

This study is in line with the findings of the study by Zayer and Gunes (2018), which found that role differences will cause differences in the distribution of information on disability awareness on social media. For instance, government regulators and policymakers share tweets regarding regulations governing the rights of persons with disabilities. Social media

can help the government publicize these regulations in hopes of increasing public awareness on the rights of persons with disabilities.

This study is also in accordance with the findings of Kempe, Kleinberg, and Tardos (2003) which found that the government chose social media, in this case, Twitter, to share information about disability awareness. They assumed that followers of specific Twitter accounts would have an understanding of the rights of persons with disabilities shared by the account. Using social media to share information about disability awareness increases the chance of this information reaching as many audiences as possible. This study is in accordance with a previous study, which found that Twitter is not only a platform used for discussion, but also one used for broadcasting (Thackeray, Burton, Giraud-Carrier, Rollins, & Draper, 2013).

Researchers used stakeholder engagement to assess the level of public engagement with posts that related to disability awareness. Stakeholders' engagement behaviors with social media posts, such as comments, "likes", and shares can illustrate the rate of engagement with a particular post (Bonson *et al.*, 2014). The results of the study show that the public is most interested in content that shares information about how to interact with other members of society. Campaigns surrounding the rights of persons with disabilities to obtain decent jobs were ranked second, followed by the rights of persons with disabilities to obtain education.

To improve citizen engagement, the government must develop a strategy that coincides with the wishes of its followers. To elaborate, they should carefully select the media included in the post, such as hashtags, photos, infographics, and so on (Abdelsalam, Reddick, Gamal, & Al-shaar, 2013). The results of this study show that the government's strategy to improve engagement with audience members is to incorporate media such as hashtags, infographics, links, photos and text. Users were most engaged with posts that included infographics, followed by posts with hashtags and photos. On the contrary, posts with only links and text had low levels of engagement. The results of this study do not agree with the results of research conducted by Bonson and colleagues (2014) and Abdelsalam and colleagues (2013). These researchers found that incorporating photos and text lead to the highest levels of engagement. Furthermore, they also found that audience members often shared content with text, which (besides media), had the lowest level of engagement.

5. Conclusion

This study aimed to examine how an alternative approach to promoting disability awareness through social media can reach a wider audience. The results show that the Government of Indonesia uses social media accounts to campaign for disability awareness. They do so by sharing content pertaining to the rights of persons with disabilities, their rights to obtain decent jobs, methods of interacting with persons with disabilities, policies relating to persons with disabilities, disasters, congratulatory and self-development messages, messages of equality, information and communication rights, political rights of persons with disabilities, tourism, education, social protection for persons with disabilities, and transportation. The government has also used strategies to increase the level of engagement with this content by attaching media such as text, hashtags, infographics, photos and links.

This study has several limitations. Firstly, the researcher only observed ministries and institutions at the central government level. Further research can and should be conducted at the local level of government. Secondly, the researcher uses an index of stakeholder engagement to measure the popularity of the posts. Further research should use other methods to directly measure the effects of social media disability awareness campaigns on the attitudes of audience members towards persons with disabilities.

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