Is Interactivity a Major Consideration for Facebook Pages? Evidence from WHO Facebook page

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Abstract

The use of social media for health promotion is an impressive and interesting approach to disseminating health information and providing health support. Facebook, for example, is well known for its user networking and interactivity and can serve as a promising platform for health promotion. The Facebook user's health consciousness and status can be understood by examining his/her attention (number of likes), involvement (number of comments) and virality/word of mouth (number of shares) and can be utilized by health promoters. The present study explores the 'WHO' Facebook page and provides suggestions to improve the user's attention, involvement and virality with respect to interactivity and category of posts. For this purpose, a sample of 264 posts in a predetermined time frame was collected and analysed. The results suggest that the virality has a greater influence on the interactive feature than attention and involvement. The results also imply that attention, involvement and virality differ respective to the category and interactivity of the posts.

Keywords: *E-health promotions, Facebook, WHO, Interactivity, Likes, Comments and Shares.*

Introduction

Since the inception of e-health, the Internet has become a strategic partner of health promotion because of the possibility of reaching a wider audience (Mimi *et al*, 2008). E-health uses Internet technology and electronic communication to support the delivery and management of health care services (Nazi, 2003; Oh *et al*, 2005). In the same vein, social media is perceived as an active partner to promote healthcare activities. Kaplan and Haenlein (2010, p.61) define social media as "a group of internet based applications that build on the ideological and technological foundations of Web 2.0, that allows the creation and exchange of User Generated Content". The reach and interactive features in social media opens a wide window of opportunity for health promoters to use it as an effective medium for dissemination of information. With seven functionalities, viz. presence, sharing, conversations, relationships, reputation, groups, and identity (Kietzmann *et al*, 2011), social media has significant potential in promoting a healthy environment among the world population. Websites like Facebook, Twitter, etc, enable user interaction in health promotion and increase the visibility of the shared message. Facebook, in particular, enhances this activity by offering separate pages to health promoters, which enable them to disseminate health services and information through various promotional strategies.

The current study discusses the interactive features of the health promotion offered in the Facebook page of the World Health Organization ('WHO').

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Health promotion in Facebook

Social media is a very exciting development in the history of communication technology. The emergence of Facebook, in particular, has facilitated interaction among users to share opinion and information. Facebook is famously known as a public profile that enables you to share your business and products with its domain users. The extensive proliferation of Facebook has resulted in its increasing use as a promotional platform, including that for healthcare promotion. Social media has eased the work of health promoters by allowing identification and interaction with the audience (Thackarey *et al*, 2008). Its interactive features make it an effective medium to reach the audience better. (Kreps and Neuhauser, 2010; Schein, 2011). Besides the reach, health pages in Facebook are unique in that they provide high interactivity to users through features such as sharing of videos and photos, contesting polls, campaigns and other interactive posts. Mixing various interactive threads in a single post allows users to like, comment and share posts effectively. Perhaps most importantly, Facebook has become an active entity among various socio-demographic groups. All these features associated with Facebook make it well suited for health promotion.

A number of health oriented pages are available in Facebook, but health.com, health digest, and World Health Organization ('WHO') are the top three active pages with 1,917,188, 1,257,889, and 740,504 followers respectively as on May 1st of 2014. Facebook pages of 'Health.com' and 'Health digest' focus on disseminating valuable health, food and lifestyle related facts. Unlike other Facebook pages, 'WHO' has a high level of social engagement in which almost all the comments boasting positive emotions. In the first 100 posts examined in these Facebook pages from January, 2014 to April, 2014, it is seen that 'Health.com' posts include sharing health tips (20), fitness (26), healthy food and drink (27), beauty and lifestyle (26), and societal (1) while 'health digest' shares health tips (20), fitness (5), healthy food and drink (37), beauty and lifestyle (9), smoking (2), brain teasers (6), motivation and other (15), and environment (6). The 'WHO' page in Facebook on the other hand, is oriented towards health, environment, safety, social, and information. 'WHO' has sorted its posts into 30 categories from 1948 to 2010 and has received a total of 1521 likes (n=30, m=50.7, s = 32.62) and had 62 comments with (53 positive, 8 neutral and 1 negative comment). Among the 30 categories, "polio" (n=4, m=63.5) has received considerable attention in the 'WHO' Facebook page. Since the start of its Facebook presence in 2010, there has been an increasing trend in sharing 'WHO' posts with 24 shares in 2010 (base year), 81 in 2011 (YoY% +337.5), 145 in 2012 (YoY% +179.01), 153 in 2013 (YoY% 105.5) and 115 in 2014 (until April 30).

The 'WHO' page shares a wide range of posts that includes health information, campaign, photo, videos, quiz and surveys from different countries in the world. With 'WHO' being an active participant in world health promotion, its Facebook page has facilitated its promotional initiatives and health visibility. While 'WHO''s work is indeed commendable, research on member response to the various posts by 'WHO' will help in improving its Facebook reach and presence.

Promotional research in social media has become an important field of study in recent years. Such research seeks to understand the effectiveness, interactiveness and share value of social media as a vehicle for promotions. A health promotional Facebook page typically publishes posts involving different interaction levels. It has been identified by earlier researchers that a post commonly comprises of three levels of interaction. (Coyle and Thorson, 2001; Fortin and Dholakia, 2005): low for pictorial posts, medium for event posts and high for video posts (Vries *et al*, 2012). Recognizing the level of interaction with which the user responds better is important to know the effectiveness of the post. The reach of a post can be measured using three attributes, viz. 'number of likes', 'number of comments' and 'number of shares'. Strategically, the likes, comments and shares represent attention, engagement/involvement and word of mouth that a user feels towards a post, respectively. This study aims to understand the relationship between interactive level and attention, engagement and virality. The interactive level in Facebook pages can be categorized into low, medium and high. From an overview of Vries et al (2002) and the panel observation on 'WHO' posts, the detailed structure of interactivity and their conceptual framework are shown in Figure 1. The primary research questions can thus be framed as follows:

RQ1: How can the posts of 'WHO' is enhanced to receive more attention (likes), engagement (comments) and virality (shares)?

RQ2: Do the attention (likes), engagement (comments) and virality (shares) differ respective to interactivity level and category of the posts?

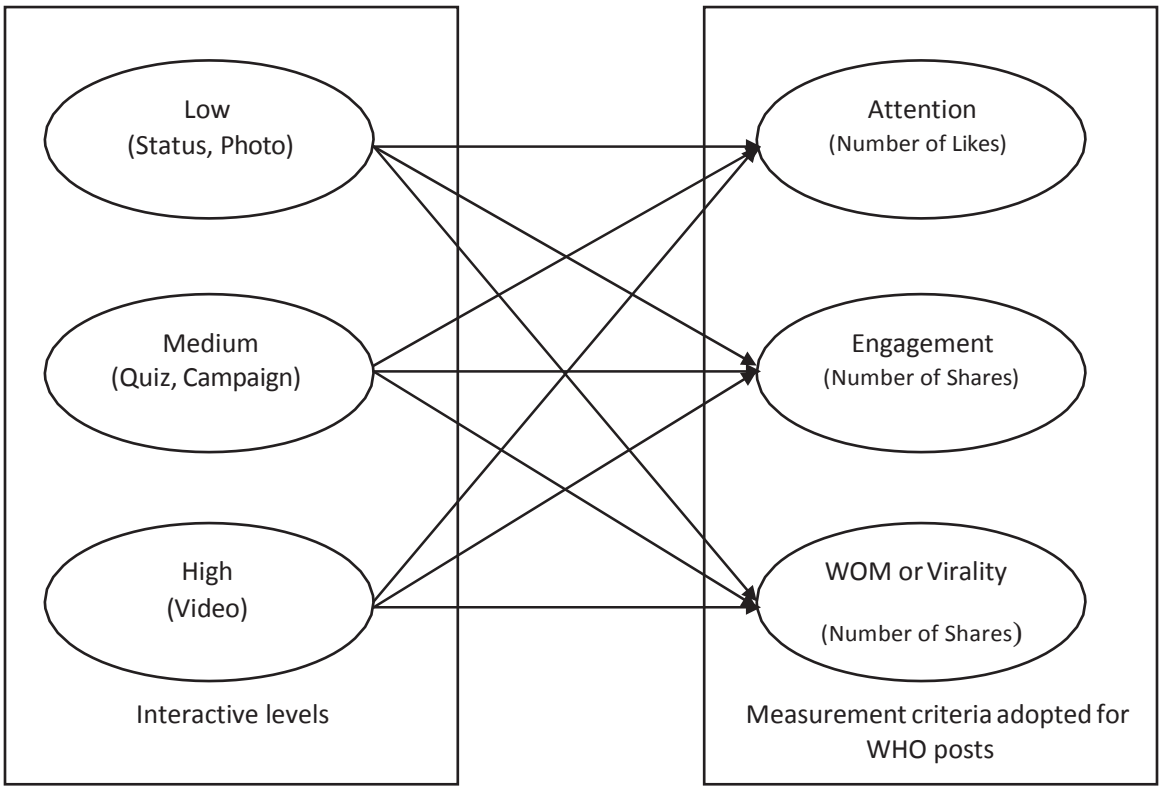

Figure 1: Conceptual framework of the study

Methods

To best answer the proposed research questions, a content analysis was conducted on the 'WHO' Facebook page. Content analysis provides both qualitative and quantitative insights with respect to the research objectives. This research uses quantitative content analysis to answer the research questions. A sample of 264 posts collected from January 2013 to April, 2014 was used for analysis. These posts were further analyzed to examine specific aspects of the proposed research question. The posts were recorded in an excel sheet incorporating the following attributes; category of the posts, number of likes, number of comments, number of shares, three stage interactive level, key purpose of posts and country discussed on the post. The number of likes, comments and shares in the posts are considered as the target variables for the research study. After three levels of examination, the posts were segmented into nine groups; campaign (10), information (67), photos (40), questions (10), quiz (1), status (119), survey (4), video (9), vote (1). The interactive levels were coded in binary values as 1 for the level and 0 for baseline. The purpose of the posts was also recorded respective to the content of the posts.

To answer the RQ1, a detailed descriptive examination on the posts was performed. Further, as suggested in the conceptual framework, the relationship between interactivity levels and the measurement components were measured using non-linear quadratic, cubic, exponential regression models. Since, the predictor

variables were measured in binary coding system, the above mentioned regression models help in standardizing the results. In the case of RQ2, multivariate analysis of covariance (MANCOVA) was conducted to know the between subject effects of the interactive level for likes, comments and shares; using 'category of the posts' as covariates.

Table 1: Descriptive statistics for the posts examined

Purpose of the posts						
	Likes		Comments		Shares	
	Mean	Std.Dev	Mean	Std.Dev	Mean	Std.Dev
Health	708.52	574.6	26.68	31.57	320.16	477.01
Environment	477.53	181.3	16.92	22.30	81.96	59.57
Safety	591.22	526.7	29.33	27.28	352.11	564.30
Sanitation and Hygiene	804.40	399.2	20.20	10.54	467.00	594.33
Other WHO status	689.28	495.6	28.96	25.78	156.37	143.73
Category of the posts						
	Likes		Comments		Shares	
	Mean	Std.Dev	Mean	Std.Dev	Mean	Std.Dev
Campaign posts	415.10	180.09	14.00	9.24	254.2	204.04
Information posts	699.70	571.67	23.95	20.36	496.23	698.37
Photo posts	765.58	514.58	20.57	15.47	159.35	139.09
Question posts	745.80	688.61	68.80	90.60	197.00	203.53
Quiz posts*	198.00	-	29.00	-	149.00	
Status posts	699.39	524.17	27.54	27.00	197.65	229.76
Survey posts	183.00	83.88	13.00	8.04	25.25	28.5
Video posts	373.00	142.54	14.88	6.37	141.88	80.57
Vote posts*	232.00	-	54.00	-	53.00	-
Total	670.29	529.6	25.80	29.15	265.26	416.10
*n=1						

Results

Of the 264 posts collected; 168 posts are health oriented posts, the others include safety (9), environment (28), sanitation and hygiene (5) and 'WHO' updates and status (54) of the remaining 96 posts. Considering the category of the posts, photo posts are found to have high mean likes, question posts have high mean comments and informational posts have high mean shares compared to other categories. 49 countries are represented in the examined 264 posts. Philippines (23), Guinea (10), Eastern Mediterranean (5), India (5), Syria (5), Brazil (4), South Sudan (4), Indonesia (3), Africa (2), Australia (2), Cebu (2), China (2), Mexico (2), Nepal (2), Russia (2), and Vietnam (2) feature more than once in these posts. Posts associated with India (n=4, mean likes = 1597.40, mean comments = 65.20, mean shares = 668.60) appear to be popular. The detailed descriptive results of the collected posts are given on Table 2.

The non linear regression estimation results are presented in Table 3. The effects of the interactive level on 'WHO' Facebook posts target variables, viz. number of likes, comments and shares are different. Low (H1a) and medium (H1b) interactive levels have significant influence

on the target variable; 'number of likes' (in quadratic and cubic models), whereas 'number of shares' show significant relationship towards medium (H3b) and high (H3c) interactive levels (in quadratic, cubic and exponential models). H1c: high interactive level towards number of likes and H1a: low interactive level towards number of shares shows an insignificant model and the hypothesis is not supported. The model for 'number of comments' representing the hypotheses; H2a, H2b, H2c are not significant with any of the interactive levels.

Table 2: Non linear regression functions for likes, comments and shares associated with interactive level

Likes						
Variables	**Quadratic model**		**Cubic model**		**Exponential model**	
	Std. Co-eff	**t-value**	**Std. Co-eff**	**t-value**	**Std. Co-eff**	**t-value**
Low	-0.139	-2.267	-0.139	-2.267	-0.099	-1.603 ^{ns}
Medium	0.501	2.128	0.219	2.128	0.080	1.296 ^{ns}
High	-0.033	-0.530^{ns}	-0.033	-0.530^{ns}	-0.012	-0.194 ^{ns}
Comments						
Variables	**Quadratic model**		**Cubic model**		**Exponential model**	
	Std. Co-eff	**t-value**	**Std. Co-eff**	**t-value**	**Std. Co-eff**	**t-value**
Low	-0.042	-0.684^{ns}	-0.042	-0.684^{ns}	-0.066	-1.078^{ns}
Medium	0.130	0.543^{ns}	0.057	0.543^{ns}	-0.005	-0.74^{ns}
High	0.022	0.354^{ns}	0.022	0.354^{ns}	0.058	0.936^{ns}
Shares						
Variables	**Quadratic model**		**Cubic model**		**Exponential model**	
	Std. Co-eff	**t-value**	**Std. Co-eff**	**t-value**	**Std. Co-eff**	**t-value**
Low	-0.059	-0.958	-0.059	-0.958	-0.027	0.979
Medium	0.943	4.044*	0.413	4.044*	-1.22	-1.981**
High	0.134	2.177**	0.134	2.177**	0.175	2.859*
Sig: ns: not significant; **0.05; *0.005						

The between subject effects using MANCOVA shows that the 'number of likes', 'number of comments', and 'number of shares' significantly differs with the interactive level (Wilks' Lamda = 0.911, f =8.410, sig < 0.005, observed power = 0.993) and category of the posts (Wilks' Lamda = 0.929, f =3.223, sig < 0.005, observed power = 0.928). The differences in the effects of the subject indicate that 'number of shares' (f=16.57, sig<0.005, observed power = 0.982) significantly differs respective to the interactive level of the posts. The 'number of likes' (f=2.97, sig<0.10, observed power = 0.575) and 'number of shares' (f=2.94, sig<0.10, observed power = 0.569) showed a moderate power with respect to the category of the posts.

Managerial Implications

The present research aims to provide empirical suggestions to promote the 'WHO' Facebook page. For this purpose, the interactive level, category, purpose and country details were empirically examined. Our study results can be augmented through exploring and understanding how the 'number of likes, comments and shares' can be increased. In a broad sense, it is

understandable that the variables 'number of likes' and 'number of comments' refer to the attention and involvement of the post viewer respectively. More importantly, it can be perceived that 'number of shares' can be directly linked to viral communication in social media. The above rationale is used in formulating the results and suggestions in improving the 'WHO' Facebook page.

Discussion to improve the attention (likes)

"Likes" are an effective tool to draw the attention of the users/viewers towards a particular Facebook post or comment. A user may like a post for various reasons associated towards it. This research studied the importance of interactive level and its impact on user likes. 'WHO' customizes posts in eight categories; campaign, information, photos, questions, quiz, status, survey, video, and vote. Among these categories, posts containing photos are found to have received more likes than the other seven categories. This is an important implication for 'WHO' to enhance the likes of the posts. Although photos are less interactive than videos, events and campaigns, they are better received through likes. Thus, the photos uploaded by 'WHO' are apparently more expressive in delivering the message of the post and this will be a big attraction for users. From a broader perspective, posts with photos control high emotional content and this has the potential to attract attention even before looking at the written content. 'WHO' can add photos with survey and campaign posts to highlight its importance in their Facebook page.

Discussion to improve the involvement (comment)

As mentioned earlier, comments mean user involvement. A user may like a post for various reasons, but would not feel "involved" with the topic unless the message stays in his/her mind, and this happens when the user is able to record his/her inputs in the post. Thus, Question posts record a high average for 'number of comments'. This result is understandable since, users are encouraged to respond and engage in these posts. Engagement motivates users to interact more, and this in turn increases the morale of a Facebook page. The 'WHO' Facebook page, being a genuine repository of facts and figures, can include more question posts to increase user involvement/engagement. As observed from the results, nearly 5% of likes translate as comments. Being more realistic in nature, 'WHO' Facebook page must allow at least 50% of the users to respond in the form of comments and answers. For this, 'WHO' can add more question posts to engage the hitherto silent user.

Discussion to improve the virality (Shares)

"Shares" can be directly attributed towards 'word of mouth' or 'viral communication'. Sharing a 'WHO' Facebook post, in first will introduce 'WHO' as an active player in the Facebook network. Attracting users are a primary benchmark for any Facebook page, the same is applicable to 'WHO' to promote health through Facebook. The results clarify that medium and high level interactivity has significant effect on the number of shares. When it comes to category, information posts are mostly shared by users, as expected. 'Shares' are an important tool to increase the visibility of any Facebook page. Thus, the 'WHO' Facebook page can share interactive information including, question posts and campaigns.

Eliciting attention, involvement/engagement and making it viral are some of the essential components that should be improved to promote a Facebook page. The interactive features associated towards posts significantly influences the 'number of shares' of posts. To increase the promotion potential and to enhance the page viability, 'WHO' can concentrate more on information, oriented posts to enhance their page presence. Although attention and involvement are necessary, it is more important for 'WHO' to first promote their Facebook pages to their maximum capacity.

With more than 1.23 billion users, Facebook rules the internet, which is now undeniably an important platform for the promotion of brands and commodities. While commercial brands use Facebook to promote their products or services, there are other Facebook pages that work towards societal development. The Facebook page of 'WHO' is one of the premier societal pages available in social media, and its visibility and range can be extended further by focusing on increased user involvement through interactions and shares.

Health promotion through social media shows promise in both academia and health care sectors because the primary notion of health promotion is to share and create awareness of health. Not much research is available on health promotion through social media, especially in the

area of understanding the relationship between interaction level and user attention, engagement and information spreading. This research shows that interactivity is very important to increase the 'number of shares' of a page. This result offers insight and guidance to both 'WHO' and other professional health bodies, to fashion their Facebook pages such that there is more focus on user interactions so that the reach and popularity of the page can be significantly enhanced in order to maximize the potential of social media in health promotion.

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