Tweeting for a Cause – Typology and Content Analysis for the Movember Organization in the United Kingdom

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Social media has become one of the most influential marketing tools in today's business world. The analysis of content can provide major insights into the most interesting and successful content a company or organization can post on social media. At hand of these insights, organizations can improve their performance on social media significantly. MovemberUK and their Twitter account pose as the subject of study for this paper. The elaboration likelihood model by Petty and Cacioppo (1986) is used to comprehend how people perceive messages, and how followers of @movemberUK are influenced through text or other mediums. A literature review of the existing research on content coding shows how other authors have coded content of Twitter data for their research. Similarities are drawn between the literature and the categories and mediums corresponding to this study. 658 tweets directly sent from the @movemberUK account were coded manually for this paper. The analysis shows that tweets containing a picture and a call for participation in the campaign is the most effective combination to receive retweets and favorites on a tweet. The results are displayed visually in a conceptual model that can be used by other health-related organizations that are promoting campaigns, which need a community of participants in order to succeed.

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1. INTRODUCTION

1.1 Background

The Movember Foundation was formed in Australia in the early 2000s (Wassersug, Oliffe & Han, 2014) and at the time was only a local phenomenon, as social media was non-existent in today's form during the formation and therefore spreading the word was much harder than it is today. Now, Movember is a non-profit organization, which raises awareness for typical men's health issues, especially prostate cancer. In 2014, 233,000 American men were projected to develop prostate cancer (Bravo & Hoffman-Goetz, 2015) and it is the second most common type of cancer in the Western countries (Wang, Yin, Qu, Mu & Teng, 2015). They are counting around two million registered male participants, which they call 'Mo bros' (Wassersug et al. 2014). Movember is raising awareness through challenging their participants to shave their faces before the beginning of November every year, followed by growing a moustache for 30 days. The participants quite literally fulfill the slogan of the campaign "changing the face of men's health".

The nature of Movember's campaign is based on humor. Funny pictures, videos and posts by Mo bros are the tools of raising awareness among the rest of the population. Although the effect of humor on health-related topics is debatable (Boyle & Joss-Reid, 2004; McCreaddy & Wiggins, 2008) and other methods of campaigning, such as infusing fear (Emery, Szczypka, Abril, Kim & Vera, 2014) are seemingly more successful, Movember was able to raise AUD $141.5 million during the 2012 campaign, with a smaller group of participants than today, at about 1.1 million Mo bros (Movember Foundation, 2013). Furthermore, the Charity Brand Index by Third Sector names Movember as the most talked-about charity of 2013 (Pudelek, 2013).

With the help of Web 2.0, which enables "content sharing, information diffusion, relationship building and fans cohesion" (Chang, Yu, & Lu, 2015, p.777), Movember is now reaching masses of people in many different countries. When taking a look at their Twitter presences, a particular model they have followed becomes apparent. Many countries have their own Twitter Movember account, making it possible to tweet in several languages. The problem with the individual country account strategy is, that not all countries are equally involved in Twitter and therefore, these accounts are relatively small, do not provide a lot of information and the community does not grow significantly. We can see that at hand of Twitter accounts of Movember Austria (@movemberAT), which has 46 followers and 2 tweets[1], as well as the account of Movember Switzerland (@movemberCH), with an audience of 89 followers and 19 tweets.[2] This study should help to improve the Twitter presence of Movember accounts, by giving a guideline about the content that is successful in terms of retweets and favorites. According to Veale, Sacks-Davis, Weaver, Pedrana, Stoové & Hellard (2015), key strategies for successful user engagement are regular tweets, individualized interactions with users, posing questions, uploading multimedia content and showing celebrity involvement. The United Kingdom account poses as the example for this study. The @movemberUK account is one of the most followed accounts of the Movember foundation and has 48,160 followers and 5,641 tweets.[3]

The timeframe of tweets that will be analyzed in this research is from October 15th, 2013 to December 15th, 2013. Therefore the total frame is 62 days long. In that particular frame, @movemberUK tweeted 658 times (on average 10.6 times per day).

1.2 Scope of the thesis

The key concepts of this paper that will be discussed are used to answer the research question. Hence, the tweets that were directly sent by @movemberUK will be discussed, their content coded and put into perspective how the account has gained the most acknowledgment from users through retweets and favorites. Afterwards, an analysis of the results will be conducted and a conceptual model can be built.

1.3 Relevance

Academics can benefit from the research, because it presents new ways of user engagement in an online conversation and how this is achieved. Widening the horizon about use of content specifically targeted at the UK will support researchers in that country to effectively work together with organizations, marketing agencies and companies. Developing categories for the content under investigation will give an insight into which types of tweets are more effective than others.

Movember can more effectively target their preferred audience and create more buzz about their cause. The specific categories are also beneficial to other non-profit organizations, health organizations and other cancer campaigns. In the end, the implementation of the results can lead to increased donations and therefore success of the campaign.

The conceptual model gives a quick overview of the most successful factors in the Movember campaign and can encourage Movember and other organizations to use other forms of social media that are more suited for the factors that are presented.

The codebooks can be used to code tweets for cancer related causes and therefore do a content analysis without the need to develop a codebook before. This allows research and implementation to be faster and less costly.

In addition, the paper points out that celebrity endorsement is not as valuable in a campaign than expected. Therefore, organizations need not spend time on acquiring celebrities to endorse their cause in a distinctive manner.

1.4 Research question

The information provided before leads to the following research question:

What effect does the content of tweets have on retweets and favorites for the Movember campaign in the United Kingdom?

Retweets and favorites represent two of the basic functions that Twitter users can utilize. Definitions and usage of these functions will be explained in the literature review of this paper.

2. THEORY

A literature study is used to identify the theory and to set it into context with the results of the empirical part of this thesis. Also, a literature review discusses typology that was used in research articles before. The literature review helps to set categories and mediums for this study, which will be evaluated for analysis.

[1] Retrieved from: https://twitter.com/MovemberAT, June 14th, 2015

[2] Retrieved from: https://twitter.com/MovemberCH, June 14th, 2015

[3] Retrieved from: https://twitter.com/MovemberUK, June 14th, 2015

Literature was found using the Web of Science, as well as Google Scholar. Keywords in the search for literature were "Movember", "elaboration likelihood model", "content analysis", "social media", "Twitter", "campaign", "favorite tweets", "retweets", etc. The research was performed between April 20th, 2015 and June 27th, 2015, a total timeframe of 10 weeks. Searches for Movember only yielded nine articles on the Web of Science and therefore only required one search round to filter the most important articles, but other searches required more detailing, as elaboration likelihood model yields 492 articles in the first round and content analysis 555,525 articles, which was trimmed down by adding Twitter to the search cue (468 articles).

In order to explain the relationships that are made at hand of the Twitter campaign, the elaboration likelihood model by Petty and Cacioppo (1986) will be used. In the 1980s, there was still no consensus about when and how messages, recipients and various channels affected attitude change (Petty & Cacioppo, 1986). There was no common view on the effect of a given variable in any context, but rather that a variable will have different outcomes given a situation. For example, adding accreditation to a statement with, what the article calls, an 'expert' source, one would think that this statement has increased in agreement across readers. Researchers have found that this is not necessarily true. Kelman and Hovland (1953) agreed with the prior expected observation, whereas Rhine and Severance (1970) observed no visible effect and Sternthal, Dholakia and Leavitt (1978) found the exact opposite of the initial hypothesis.

The elaboration likelihood model (ELM) is made up of two routes that result in persuasive communication (see Petty & Cacioppo, 1986, p. 126), which is the starting point of the ELM. The central route is directed through "a person's careful and thoughtful considerations of the true merits of the information presented in support of an advocacy" (Petty & Cacioppo, 1986, p. 125). The other route, called the peripheral route, is influenced by sources other than the pure merits of the information that Petty and Cacioppo describe as an "attractive source" (1986, p. 125).

In the case of Movember and their tweets, we can call the tweet itself and the words it provides the pure merit of the message. This is where we follow the central route, where users look at only the true words that are communicated. On the peripheral route, the attractive source, we can find a different medium that is supposed to engage the user in a different way other than the simple text of the tweet. Here we can find pictures, videos, celebrity endorsements, etc. These mediums help to bring the content across, from a simple message to something unique and worth remembering. Bhattacherjee and Sanford (2006) state, "external information is the primary driver of attitude change and consequent behavior change" (p. 808), but the addition of heuristic cues can help to change attitudes in a less effortful way (Bhattacherjee & Sanford, 2006). People who initially lack motivation or ability (Chang et al., 2015) also get involved in the topic due to the addition of the attractive source.

To explore the meaning of the ELM, we will move through the process guided by an example of a campaign tweet. According to Snyder (1989), the goal of a campaign in a political setting is to increase votes for a particular party and therefore increase the share of seats in legislation. Hence, a campaign is used to increase one's own power. The same can be applied for a cancer campaign. Health organizations use their campaigns to spread the word of a certain disease or try to reduce the risk of a disease from occurring. The campaigns make the health organization more powerful. Looking at Movember, like it was stated in the introduction, the organization was small in the beginning and only present in Australia. Without social media, the organization could only grow slowly and nationally. Once the Web 2.0 started to emerge, campaigns could be launched at a relatively smaller cost and a bigger reach (Kazim Kirtis & Karahan, 2011; Castronovo & Huang, 2012). Now, Movember is known all over the world. The use of Web 2.0, which allows for direct communication, collaboration and user-generated content (Thackeray, Neiger, Hanson & McKenzie, 2008; Kaplan & Haenlein, 2010), has made the organization and their campaign more powerful.

Looking at the following tweet, we can see how Movember is trying to move their followers through the ELM:

> *Every Mo matters. 100,000 fighting the good fight. Sign up now and be a Mo that counts! uk.movember.com #GenMo*

The tweet was accompanied by the following image:

Figure 1: Example of picture in a tweet

This tweet was posted by @movemberUK on October 30th, 2013 at 6:07 pm. It was retweeted 81 times, favorited 10 times and got one direct reply.[4]

With this combination of text and picture, Movember has engaged all users, whether they follow the central or peripheral route in the ELM. The central route "requires a person to think critically about issue-related arguments" (Bhattacherjee & Sanford, 2006, p. 808), which makes it more effortful. The example tweet that was chosen is categorized as a "Participation" tweet (categorization will be further explained during the methodology), and therefore one that is arranged in the group that highly elaborates followers. The picture, which is a heuristic cue and therefore less effortful, is arranged in the

Table 1: Categories and mediums that lead people to be highly or lowly elaborated

High Elaboration	Low Elaboration
Donation	Celebrity Endorsement
Information	Event
Interaction	Inspiration
News/Blog	Picture
Participation	Promotion
Question	Video
Text	

[4] Retrieved from: https://twitter.com/MovemberUK, June 9th, 2015

group that lowly elaborates followers. In general, tweets that require people to think critically are placed in the high elaboration group. Tweets that are less effortful to comprehend are placed in the low elaboration group (table 1).

To start from the top: the persuasive communication is supposed to be achieved through the tweet. First, the user enters the central route of the ELM. The first stage that involves the target audience is the motivation to process. In that stage, fundamental attitudes towards the topic are being asked:

> *Is the topic relevant to the target or not? Is there a sense of responsibility?*

If the answer is yes, the next step is the ability to process. The message needs to be comprehensible and maybe even depends on prior knowledge, but if the answer in either one of the stages is no, then the user shifts to the peripheral route of attitude change. This means, the text itself was not appealing or comprehensible for the follower. Once on the peripheral route, the question is asked if there is a peripheral cue present. In our example, the cue is present by means of the picture. If there were no peripheral cue, the user would simply retain or regain their initial attitude. Thus, the user would not be influenced by the tweet and the goal of the campaign would not be reached, as the follower simply ignores what the campaign is telling him/her. But since there is a peripheral cue, we move the user to the peripheral attitude shift. That stage is only temporary and does not yet predict behaviour, but it moves the user back onto the central route and gives a new incentive to comprehend the message and make it relevant to the person. Now that the user has been guided through the stages of motivation and ability to process, either by central route or peripheral route, it is time to process the message and make up an opinion about it. That could be favorable, unfavorable or neutral. If it is the latter, the user shifts back to the peripheral cue. Then he/she retains or regains the initial attitude, so there is no change. If it is one of the two former, then the user moves into the attitude shifting stage. Whether the response to the message is favorable or unfavorable, the attitude changes positively or negatively to the central message. In case of a positive attitude change, the user might start participating in the Movember challenge himself, leading to an increased number of mo bros and possibly increased donations. Is the attitude change negative, the user might unfollow the Twitter account and the campaign loses a potential participant. The formed attitude is long lasting and the behaviour of the individual is more predictable. In the case of our example, we can see that the attitude is positive. There were a high number of retweets (81) and favorites (10). In addition, the only direct reply had a positive sentiment, by @maitlands94: *@MovemberUK We have took a step into the future and seen what our staff are going to look like in a months time! pic.twitter.com/CIUpDKLAZt*

2.1 Hypotheses

After looking at the theory, we formulate the following hypotheses:

H1a: Tweets with peripheral cues will have a higher retweet/tweet ratio than tweets without peripheral cues.

H1b: Tweets with peripheral cues will have a higher favorite/tweet ratio than tweets without peripheral cues.

Tweets with peripheral cues are less effortful for users to understand and they can grasp the essence of the tweet faster and are therefore more prone to diffuse the tweet.

H2a: A tweet containing a celebrity endorsement will accumulate a high retweet/tweet ratio.

H2b: A tweet containing a celebrity endorsement will accumulate a high retweet/tweet ratio.

Celebrity endorsements should function in the same way as an expert source, which should enhance the credibility of a statement. In the case of the celebrity endorsement, the visibility of the tweet should be far more effective than other tweets. This will be interesting to observe, as the literature in itself is not unanimous about this topic. Celebrity endorsements work like the peripheral cue in this case, as the names of the famous people will stand out more to the followers than the rest of the text.

3. LITERATURE REVIEW

3.1 Types of content that are present on Twitter today

To get a grasp about the different categories that can be found on Twitter and to relate them to the categories developed for the set of tweets of this study, looking at literature lays out the categories that have been used before by other researchers.

Chew and Eysenbach (2010) published a study after the H1N1 pandemic in 2009, to determine how the behaviour of tweeting changed during the crisis. The World Health Organization (WHO) preferred the term H1N1 to the popular term 'swine flu'. Therefore, Chew and Eysenbach have studied the change from the initial start of the study (May 1st, 2009) until the end of the project period (December 31st, 2009). They have coded the tweets under the principles of three major groups. First, they take the tweets basic content, secondly, how it is expressed, and lastly, what type of link is present in the tweet, if any. If there were any tweets that were ambiguous or neutral, they did not code them.

In their first category, Chew and Eysenbach developed six categories, namely (1) resource (news, updates, information about H1N1), (2) direct or indirect personal experience, (3) personal opinion or interest, (4) jokes/parody, (5) marketing (health campaigns, etc.) or (6) spam (unrelated posts about the pandemic, but still containing one of their key words).

In their second group, they identified seven different classifications: (1) Humor or sarcasm, (2) relief, (3) downplayed risk, (4) concern, (5) frustration, (6) misinformation and (7) questions.

In the last group, they observed seven categories and two more where the website could not be accessed or no URL was provided. The categories are (1) mainstream or local news, (2) news blog, feed or niche news, (3) government or public health, (4) personal blog, (5) social network, (6) online store and (7) others that could not be categorized under the listed terms.

Hambrick, Simmons, Greenhalgh & Greenwell (2010) have identified a different list in their study about athlete tweets that they collected from various professional and collegiate sports. In total they examined a random sample of 101 athletes' accounts and took their 20 most recent tweets for a content analysis. Their categories are (1) interactivity (direct communication with athletes and fans), (2) diversion (non-sports related information), (3) information sharing (insight into sport, teammates, etc.), (4) content (links to pictures, videos or other web sites), (5) fanship (discussing sports other than their own) and (6) promotional (publicity regarding sponsorships, etc.). They have found that 34% of tweets fall into the interactivity category which enhances the support of the fans for the team and the athletes and that ultimately leads to larger success in selling merchandise, tickets, etc. (Hambrick et al., 2010). Their categories are backed up by the research of

Ruggiero (2000), who claims that interactivity forms personal relationships between the people communicating. In the case of athletes, interactivity and Twitter, especially the dimension of reciprocal communication (Ha & James, 1998) applies, since it is easy to start a personal conversation with a fans' idol through the *@username* function of Twitter. This also applies to Movember, as followers can start an interactive communication with the organization by tweeting *@movemberUK* and directly get in contact with one of the social media representatives.

Thackeray, Burton, Giraud-Carrier, Rollins & Draper (2013) published a study about Breast Cancer Awareness Month (BCAM), in which they have identified eight categories of tweets. Being a health-related and even cancer-related campaign as well, some categories can be found in Thackeray's article that are also present in this study of Movember. Their categories are (1) clothing, (2) fundraiser, (3) walks, (4) early detection, (5) loved ones, (6) diagnosis, (7) treatments and (8) resentment. The amount of tweets that were grouped into each category is in the above-mentioned order. Therefore, tweets mentioning health-related information are at the lower end of the spectrum in this particular study.

The same finding is true for the study of Bravo and Hoffman-Goetz (2015) about the Canadian Movember campaign. One of their key findings was that the majority of tweets in their dataset did not mention prostate or testicular cancer. Their classifications are (1) health information (prostate cancer, testicular cancer, mental health and general men's health), (2) about the Movember campaign (vision, values and goals), (3) participation (community engagement activities, commercials, contests and giveaways and moustaches) and (4) other (celebrities or opinion leaders).

Another different categorization about tweets was made by Tsou and Yang (2012) during an analysis of tweets in the US presidential primaries election. They have looked at tweets sent (1) two days before election, (2) one day before election and (3) on the day of election. With their analysis they have observed the correlation between tweet frequency and the actual outcome of the election in different states. Their results have shown that there is a strong correlation between tweets and the outcome of the election, except for one candidate, who had a lot of buzz on Twitter, but did not reach a high percentage of votes. The study shows the possibilities of forecasting results by analyzing tweets in a particular setting.

3.2 Functions on Twitter

3.2.1 Retweets

Mostly, those users that are interested in distributing information or engaging in conversations will use retweets (Boyd, Golder & Lotan, 2010). The function is the "key mechanism for information diffusion in Twitter" (Suh, Hong, Pirolli & Chi, 2010, p.2). Reasons for retweeting are such as spreading content to new audiences, commenting on a specific tweet by adding one's own words to the retweet, to gain followers, as an act of friendship and loyalty, among others (Boyd et al., 2010).

Retweeters are also concerned with the audience they are tweeting to. If they see content that they believe is of interest to their follower audience, they are more likely to retweet that particular message (Boyd et al., 2010).

3.2.2 Favorites

Twitter states that favorites are available for users to mark tweets, which they liked or archive them for later (Meier, Elsweiler & Wilson, 2014). However, it is one of the most unstudied concepts in all of Twitter and many people have different reasons for favoriting tweets. Meier et al. (2014) have conducted a study with 606 respondents that declared a total of 25 different motivations that people said were reasons to push the favorite button. Examples of the most frequently named motivations include liking, special authors, bookmarking, informational tweets, personal relation, emotional stimulus and agreement/approval of the message.

3.2.3 Replies and mentions

The functions of @replies and @mentions, where users are explicitly named, is a direct reply to a tweet sent by another user. It therefore distinguishes itself from the implicit mention through a Twitter hashtag (Sousa, Sarmento & Mendes Rodrigues, 2010). Furthermore, Sousa et al. (2010) have found out in their study about Portuguese Twitter users that the social aspect in replying is more prevalent than the topical aspect. In addition, replies and mentions are used to start conversations or encounter new interesting people to follow on Twitter (Suh et al., 2010).

4. METHODOLOGY

4.1 Data collection

The TwitterAPI (application program interface) was used to download a JSON file of the last 3600 tweets sent by MovemberUK. The tweets for the correct timeframe from October 15th, 2013 to December 15th, 2013 were collected in an Excel sheet to structure the data. Thus, a dataset of 658 tweets was left and the corresponding amounts for retweets and favorites were displayed next to the tweet itself. The TwitterAPI does not provide amounts of direct replies, which is the reason they were not used for the analysis of the categories.

Deriving out of the Excel sheet, the tweets were evaluated manually by human coding into different categories and the mediums that are used to express the category or rather enhance the message of the tweet.

Tweets that originated from different accounts other than @movemberUK, but were retweeted by @movemberUK, were excluded from the data analyses. Although those tweets are visible to their followers, the retweet and favorite count does not go toward the Movember account, but to the original post. Therefore, those messages would manipulate the results, because they would count towards the total amount of tweets, but do not show up in the retweet or favorite data. In addition, Twitter offers a setting that allows followers to deactivate retweets. Thus, a follower of @movemberUK that has deactivated retweets will not see what @movemberUK has retweeted. Consequently, it cannot be assured that every follower of the Movember account also sees those tweets, which would make the analysis biased.

4.2 Category and medium coding

In order to code the categories, two codebooks were developed at hand of a literature review (chapter 3) and by identifying other re-occurring commonalities in tweets that are especially suiting for the Movember campaign. One codebook was used to identify the categories of the tweets, while the other was used to display the mediums that were found in the individual tweets. After analyzing the first 100 tweets, common categories and mediums were identified and certain buzzwords and/or indicators have shown the affiliation of a tweet with a category or medium. Categories that were initially identified, however have been used only to a small extent, were discarded. Thus, the tweets under those categories were recoded into other fitting categories. Furthermore, if a tweet contained a URL, this URL was copied and pasted into a web browser to confirm the medium. In some cases, a picture or video accompanied the

medium "celebrity endorsement", however the medium "celebrity endorsement" was chosen given that situation instead of the other possible choices, because these tweets have a different standing than other pictures or videos.

4.3 Statistical analyses

Statistical analyses were performed using SPSS. The Excel datasheet was analyzed via a multivariate analysis of variance (MANOVA) to test significance of categories and mediums. Duncan's multiple range test was also used to identify subsets of comparable categories and mediums directly.

4.4 Inter-rater reliability

In order to calculate inter-rater reliability, another student involved with the Movember project coded 100 tweets. It was calculated using Cohen's Kappa and was found to be excellent based on 100 double annotations (Kappa = 1.0).

5. CATEGORIES AND MEDIUMS IN THE BRITISH CAMPAIGN

For the British campaign, as is stated in the methodology part, the content analysis was performed and eight categories and five mediums were identified. The classification was not strictly based on content alone, since some buzzwords appeared in tweets, however the content was not exactly representative of those buzzwords. For example, the word 'photo' in a tweet did not always ensure that a picture was the medium of that tweet:

> *"One week in. Send us your photos and let's see what you've grown! Remember every Mo matters. Be proud this #Movember"*

Thus, manual human coding provided the means to identify tweets that could be misleading if they were coded by a computer program.

Table 2: Codebook for categories and example tweets

Category	Definition	*Buzzwords/* Indicators	Example tweet
Donation	Content that advertises making a donation to a member, team or organization.	*Donate, donation, £, charity, funds, fundraising, fundraiser*	*"The Art of Mo" - Donate to have your custom Mo'trait created by @GalleryofMo | http://t.co/jzIItSR38X #Movember http://t.co/wcuFRIH9mL*
Event	Content that points out an event organized by Movember or one of their partners.	*Tickets, event, events, barber shop, gala*	*"Put your best foot forward this #Movember with @Mo_Running and join a 5km or 10km event! http://t.co/Ko4gjbFJmf http://t.co/gjIhK9LPWE"*
Information	Content that informs about how Movember works and what the subjects of the campaign are.	*Tip, reminder, rule, journey, story, statistics, facts, info, information, learn, health*	*"A reminder of who our brilliant partners are this #Movember: http://t.co/ZiVvG2qiAC http://t.co/nMKgUVYgTM"*
Inspiration	Content that suggests a certain style of moustache or leads people to the good cause of Movember.	*Inspire, moustache, style, guide*	*"Be inspired this #Movember with 'The 15 Best Moustaches In History' http://t.co/nOIgrFRHcX via @HuffPostArts #throwbackthursday"*
Interaction	Direct contact between followers and Movember itself.	*RT, @username,* mentioning a Movember e-mail address for support	*"@Bru_Thomas Why not just use the Movember website? It functions just like a JustGiving Page"*
Participation	Content that encourages people to take part in Movember, to sign up a team or shows the progress of a team.	*Support, sign up, join, team, mo bro, mo sista*	*The hour is upon us. Join up. Shave down. United we Mo. Sign up now: http://t.co/mUqK7YhIFm #Movember #GenMo http://t.co/UeDIkJGo3Q*
Promotion	Content that promotes Movember, the campaign, a product, a partner of the organization advertises a contest or a certain way to top up your donations by sponsors	*Rewards, contest, win, prize, competition, challenge, vote, football, cricket, rugby, formula 1, #movember, partner, app*	*"Our partner @ThreeUK are having fun with some #Movember ambassadors that involve @nathanwyburn1 - Prizes to be won! http://t.co/1dtduqu7Ge"*
Question	Content that starts or ends with a question, leading people to think critically and not only reading tweets.	*Question marks,* interrogatives	*"Wolves or Giraffes? #Movember"*

Several categories and mediums are related to what could be found in existing literature, like interaction, promotion, question, news/blog, events or pictures and videos.

Other categories are more specific for the Movember or non-profit organization context, such as asking for donations, like the fundraiser category in the BCAM campaign. Participation in their campaign, or inspiration in the form of different styles of moustaches, which could be associated in the same way that the clothing category is functioning for BCAM, are also more specific to the Movember campaign.

Furthermore, to get an idea about the tweets that are being diffused via the account of each category, table 2 shows the codebook for categories, plus example tweets per category.

The UK campaign tweeted 658 times in the researched timeframe. In figure 2, the total number of tweets per category is listed.

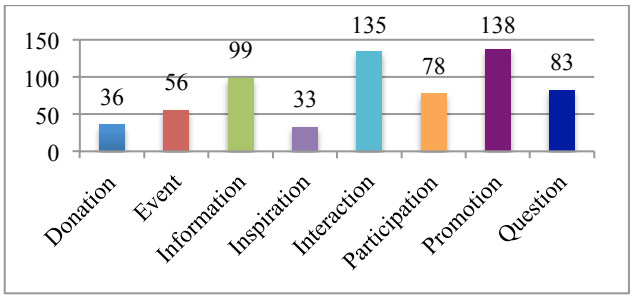

Figure 2: Number of tweets in certain categories

We can observe that the highest number of tweets is in the promotion category with 138 (21.0%) total tweets, followed by interaction with 135 (20.5%) and information with 99 (17.4%). On the lower end we see inspiration, donation and event. Hence, there is a mix between high and low elaboration classification among the most, as well as among the least used categories.

The medium codebook (table 3) shows how the content was enhanced or displayed by @movemberUK in the feed of their followers. News and blogs have been grouped together, as they both represent a way of delivering insights to the followers.

Table 3: Codebook for mediums

Medium	Definition	*Buzzwords*/ Indicators
Celebrity Endorsement	A tweet containing a message about or by a celebrity. Celebrity status is awarded to accounts of 50,000 followers and more.	*Football, rugby,* Mentioning @username explicitly, e.g. for a video, names of famous people in the tweet, etc.
News/Blog	Newspaper article or blog entry about the campaign, what it does, what Movember is, etc.	*News, blog, article, via @username,* foreign URLs
Picture	A picture accompanying the message to stand it in the personal feed of Movember's followers.	*Picture, photo,* Tweet that ends with a URL
Text	A plain text message tweet without other visual mediums.	Foreign URLs, only hashtags, no other mediums
Video	Video of celebrities wearing moustaches or informing about moustache growth, funny clips about Movember or members creating buzz around the Internet for the Movember cause.	*Video*, URLs leading to YouTube, Vimeo, etc.

Figure 3 shows how the total amount of tweets is distributed amongst the mediums. Text only was the most frequently chosen medium with 285 tweets. Pictures have been chosen 193 times, while the medium video was least frequently used at only 31 times.

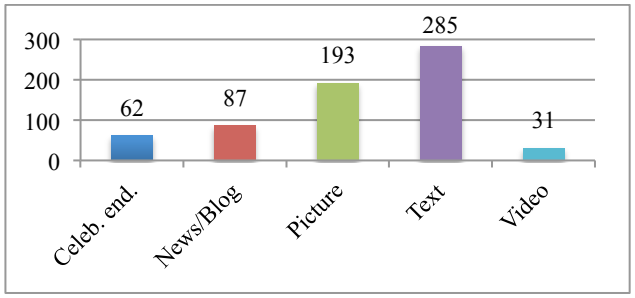

Figure 3: Number of tweets with certain mediums

6. RESULTS

Overall, @movemberUK got 7381 retweets and 2354 favorites. For a total of 658 tweets, that is a ratio of 11.22 retweets per tweet and 3.58 favorites per tweet.

In the following two tables, the total numbers of retweets and favorites is listed for each individual category and each individual medium, which were described earlier. The tables show which kind of content was most successful in increasing the reach of the message across the Twitter user base.

Table 4: Results for categories

Category	Retweets	Favorites
Donation	387	156
Event	301	124
Information	1720	437
Inspiration	313	97
Interaction	65	75
Participation	2182	550
Promotion	1384	605
Question	1029	310

Table 5: Results for mediums

Medium	Retweets	Favorites
Celebrity Endorsement	481	307
News/Blog	670	185
Picture	4162	1271
Text	1814	527
Video	254	64

Calculating a ratio of retweets per tweet and favorites per tweet allows having a more objective view of the influence of each category and each medium. These ratios are displayed in table 5 and 6.

Table 6: Ratios categories

Category	Retweets	Favorites
Donation	10.75	4.42
Event	5.38	2.21
Information	17.37	4.41
Inspiration	9.48	2.94
Interaction	0.48	0.56
Participation	27.97	3.99
Promotion	10.03	4.38
Question	12.40	3.73

Table 7: Ratios mediums

Medium	Retweets	Favorites
Celebrity Endorsement	7.76	4.95
News/Blog	7.70	2.13
Picture	21.56	6.59
Text	6.36	1.85
Video	8.19	2.06

Results are mainly based on the ratios that were calculated in the tables above, because judgment on numbers is more objective in that way.

6.1 Retweets

Overall, of the 658 tweets, 531 have been retweeted (80.7%). The tweet with the most retweets at 380 times was:

> "*Morning team. Lets do this. #DontMoAlone http://t.co/ENIZfc0kd2"*

In the content analysis, this tweet was classified as a participation tweet, which was enhanced by a picture. As seen in the codebook (table 2), the word *team* is included. Furthermore, the URL at the end of the tweet is an indicator for a picture, as stated in table 3. By pasting the link in a web browser, the picture also becomes visible.

The tweet was sent on November 1st, 2013 in the early morning. Hence, it was the official start into the month that got the most attention from followers.

Participation tweets were retweeted most with 27.97 retweets per tweet, followed by information (17.37) and questions (12.40). Therefore, categories that were grouped as high elaboration in table 1 make up the top three of retweeted categories and are all above the average of 11.22 retweets per tweet. Promotion (10.03), inspiration (9.48) and event (5.38) were all less frequently retweeted and make up the low elaboration categories. One category is posing as an outlier to that finding, as interaction tweets are far behind in retweet count at 0.48, which is well below the other categories and does not fit with the finding that high elaboration tweets have a higher retweet/tweet ratio. On the other hand, this can be explained by the fact that an interaction tweet is a reciprocal communication between a specific user and Movember UK. Therefore, fewer users take interest in that particular tweet and do not retweet it.

The key finding in the content analysis for mediums is that celebrity endorsements do not gain nearly as much retweets per tweet (7.76) as pictures, that have an overwhelming ratio of 21.56 retweets per tweet, compared to 8.19 retweets per tweet in videos, 7.70 in news/blogs and 6.36 in text only.

6.2 Favorites

Of the 658 tweets, 480 have been marked as favorites (72.9%). The same tweet that has been most frequently retweeted was also most frequently marked as a favorite (77 times). Looking at the ratios, the tweet confirms that pictures are also the most frequently marked as favorites. On the other hand, participation is not ranked among the top three categories to be marked as favorites. Accordingly, this participation tweet presents itself as an outlier.

Favorites behave differently compared to retweets, in the sense that low elaboration categories are more likely to be marked as favorites than high elaboration category. One interesting finding is that interaction is the only category that has a higher favorite/tweet ratio than retweet/tweet ratio. Thus, the personal interaction is more important to the individual user himself/herself than diffusing it among his/her own followers. When the user has marked it as a favorite, it moves into their own list of favorite tweets, that they can view again later on. It is a reminder that the official Movember UK account has acknowledged their message and acted upon it. The motivations that correspond to favoriting in this context are bookmarking, special authors and personal relation.

In case of mediums, we can see that celebrity endorsements are the second most frequently marked as favorites, behind pictures. Referring back to the motivations to favorite, reasons for this could be liking, special authors or bookmarking.

6.3 Effects for text only tweets

Among mediums, text had the lowest ratios in both retweets and favorites. In order to determine whether the other mediums are the driving force behind retweets and favorites in the categories, an analysis of the tweets that were text only and the corresponding categories is conducted. A comparison between the results of the categories with all mediums and the categories with text only is done.

Figure 4 shows how the 285 as text-classified tweets were distributed in each category. As we can see, almost all interaction tweets (135) were sent as text (120).

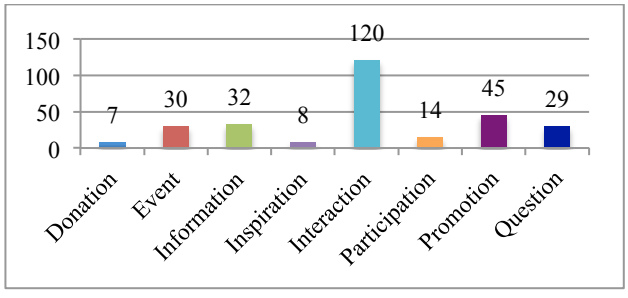

Figure 4: Number of text only tweets in certain categories

Table 8 displays the total number of retweets and favorites corresponding to the categories for text only tweets.

Table 8: Results in categories with text only

Category	Retweets	Favorites
Donation	87	22
Event	98	44
Information	852	177
Inspiration	42	20
Interaction	34	37
Participation	124	28
Promotion	349	136
Question	235	63

As was done previously, a ratio of retweet per tweet and favorite per tweet was calculated in order to get an objective dataset relatively to the total amount of tweets that were sent (table 9).

For the text only tweets, the retweet/ratio is 6.36. The ratios for donation (12.43), information (26.47), participation (8.86), promotion (7.76) and question (7.97), all lie above that average. Inspiration is slightly lower than the average (6.17). Only event (3.27) and especially interaction (0.28) take down the average significantly.

When comparing the categories with text only tweets to all tweets, it becomes clear that 6 of 8 categories have a smaller retweet/tweet ratio, and 7 of 8 categories have a smaller favorite/tweet ratio, for text only. The information category stands as the only one that shows higher ratios for both functions, when using text only.

Table 9: Ratios of categories with text only

Category	Retweets	Favorites
Donation	12.43	3.14
Event	3.27	1.47
Information	26.47	5.53
Inspiration	6.17	3.33
Interaction	0.28	0.31
Participation	8.86	2.00
Promotion	7.76	3.02
Question	7.97	2.17

6.4 Statistical analyses

A multivariate test is used to determine significance of categories and mediums in regard to amounts of retweets and favorites. There was no statistically significant difference in retweets and favorites for categories, $F(14,1234) = .907$, $p = .551 > .05$; $Wilk's\ \Lambda = .980$. On the other hand, there was a statistical significance in retweets and favorites for mediums, $F(8,1234) = 3.361$, $p = .001 < .05$; $Wilk's\ \Lambda = .958$ (see Appendix figure 6). The follow-up univariate test for mediums shows significance for retweets ($p = .001$), but no significance for favorites ($p = .105$), taken an alpha of .05 as significance level (see Appendix figure 7).

A Duncan's multiple range test describes the subsets of means that significantly differ from each other. Therefore, we can observe patterns of significance, by comparing the categories and mediums with each other. The subsets group together certain categories and mediums and determines in that way which are more effective than others and if that result is substantial.

Table 10: Duncan's test for number of favorites for categories

	Subset		
Category	**1**	**2**	**3**
Interaction	0.56		
Event	2.21	2.21	
Inspiration		2.94	
Question		3.73	
Donation		4.33	
Promotion		4.36	
Information		4.46	
Participation			7.05
Sig.	0.113	0.059	1.000

Concerning favorites for categories (table 10), there are three subsets that significantly differ from each other. Interaction has significantly lower numbers of favorites than all categories except for events. Participation is the only category that significantly differs from all of the other categories, meaning that they get significantly higher amounts of favorites than the other categories. Six categories get similar amounts of favorites and therefore do not differ from each other statistically.

Table 11: Duncan's test for number of retweets for categories

	Subset			
Category	**1**	**2**	**3**	**4**
Interaction	0.48			
Event	5.38	5.38		
Inspiration	9.48	9.48	9.48	
Promotion		10.03	10.03	
Donation		10.75	10.75	
Question		12.40	12.40	
Information			17.33	
Participation				27.97
Sig.	0.054	0.162	0.117	1.000

For retweets (table 11), participation is also significantly higher than the other categories, so participation also gets significantly higher retweets than other categories. The information category also shows promising numbers, as it leads the second highest subset with 17.33 retweets/tweet. Interaction on the other hand is again the lowest category for retweets and significantly less than all other categories.

Mediums show two subsets for favorites and for retweets alike. In the first subset for favorites, text, video and news/blog do not significantly differ from each other. Celebrity endorsements and pictures make up the second subset. They differ significantly from the other subset and gain more favorites.

Table 12: Duncan's test for number of favorites for mediums

Medium	Subset 1	Subset 2
Text	1.85	
Video	2.06	
News/Blog	2.13	
Celebrity endorsement		4.95
Picture		6.62
Sig.	0.791	0.088

For retweets, only pictures are in subset 2 and therefore differ significantly from the other mediums in their ability to generate retweets. The other mediums all get similar amounts of retweets and do not significantly differ from each other.

Table 11: Duncan's test for number of retweets for mediums

Medium	Subset 1	Subset 2
Text	6.36	
News/Blog	7.70	
Celebrity endorsement	7.76	
Video	8.19	
Picture		21.56
Sig.	0.693	1.000

7. DISCUSSION

As the results have shown, participation tweets and pictures are the most likely to be retweeted. Pictures have an influence on participation tweets, as the participation category has shown a large difference for the analysis of text only tweets. Therefore, Movember should combine those types of tweets in order to reach many Twitter users. The high amount of retweets on participation tweets indicates that followers of MovemberUK want their own followers to know that there is a campaign that is fighting for men's health. By increasing the number of participants, more mo bros and mo sistas register their official mo space, where other people can make contributions to the participants fund. Ergo, the more participants, the more donations should be collected. The next highest ratio for categories measured with all mediums is that of information tweets. What is interesting is that the ratio is even higher when information tweets are text only. Hence, for messages that provide them with information, the peripheral cue is not as important as the message itself. The only other category that had a higher ratio in retweets for text only is donation. Thus, it can be said that the messages for information tweets and donation tweets are better distributed when they rely on the pure merit of the message and let users follow the central route of the ELM.

The comparison of the ratios for categories for all mediums and for text only showed that in general, the number of retweets and favorites are higher when mediums other than text are included. The significance shown during the multivariate analysis confirms that mediums, and therefore peripheral cues, have an influence on the amounts of retweets that are accumulated, especially through pictures. However, the univariate analysis of mediums has shown that the type of medium that is used does not significantly influence favorites. Therefore, hypothesis 1a is not rejected, while hypothesis 1b is.

The medium celebrity endorsement was not as successful at engaging followers as was hypothesized in the beginning. Hence, hypothesis 2a is rejected, considering that the ratio of retweets per tweet for celebrity endorsement tweets is within the second subset of the Duncan's test for retweets and below the overall average of 11.22 retweets/tweet. Nonetheless, hypothesis 2b is not rejected, because celebrity endorsements is part of the second subset that accumulates the highest number of favorites.

8. CONCEPTUAL MODEL

The conceptual model (figure 5) displays the major findings of the results and discussion in a figure. Conversation participation is at the center, surrounded by the measures retweets and favorites. In the discussion it was stated that participation and information were the most successful categories for increasing retweet and favorite numbers. Thus, they have a positive impact on conversation participation, just like pictures, which is the most influential medium, as it gains the most retweets and favorites.

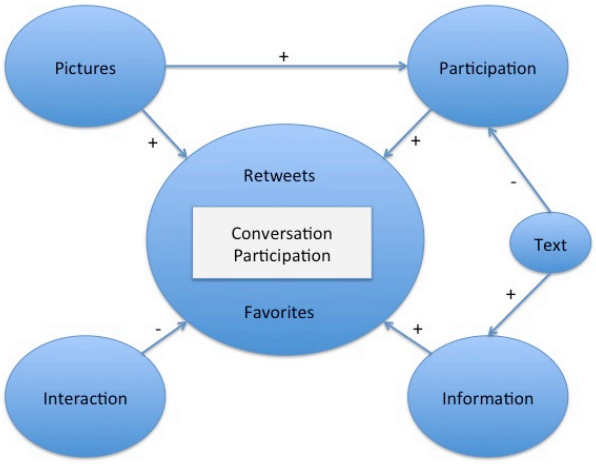

Figure 5: Conceptual model for conversation participation

Pictures positively influence participation, as the analysis of categories with text only tweets has shown. Amounts of retweets drop heavily when participation is displayed as text only and favorites dropped to half. Therefore, text negatively influences participation. On the other hand, numbers of retweets and favorites for information increase when they are displayed as text only.

Interaction tweets were always on the low end of conversation participation, which is why they are displayed as a negative influence.

9. CONCLUSION

To conclude, MovemberUK already has a very good social media campaign, that leads to many followers and high amounts of donations for cancer research. The organization acts accordingly with the key strategies of user engagement by Veale et al. (2015) that were introduced in the introduction.

By delivering the conceptual model, MovemberUK can implement new methods surrounding their social media strategy. As the model shows, pictures are the most reliable medium to increase retweets and favorites. Therefore, a recommendation is to shift the strategy to an Instagram page, as this social media site is solely based on pictures. Providing users with images is a promising way to engage them and

making it easy to understand the cause of the Movember organization. Encouraging people to participate is the most important thing for MovemberUK, in order to gain recognition and spread the cause across the Twitter platform. Together with providing information about the disease and the organization itself, these two categories provide the means of highest engagement with the followers and are thus central to Movember's cause.

Interaction tweets have no visible effect on retweets and favorites, and therefore do not contribute to the central focus of conversation participation. Hence, Movember should direct their focus even more on the one-to-many conversations and away from the one-to-one conversations they have with individual followers.

The research question is answered, as the paper has outlined which types of content have the highest effect in terms of retweets and favorites.

In the end, this thesis has added a conceptual model to existing literature that outlines the most effective factors that increase amounts of retweets and favorites that can be used by organizations to enhance their social media channels, especially Twitter. The model is most applicable to cancer fighting organizations that are looking to engage people in a community. Asking for participation and delivering the necessary information about the organization, campaign and disease are the main drivers of these campaigns to succeed and collect donations for their cause.

10. LIMITATIONS

In the original research proposal, the idea was to compare the German and British Twitter campaign of Movember. After attempting to code the @movemberGER tweets, that idea was discarded. The source of the tweets was Facebook, meaning that the Facebook and Twitter accounts were linked, and all Facebook posts were automatically posted on Twitter as well. Therefore, every tweet was shortened with a URL in the end, because Facebook does not limit posts to 140 characters. Moreover, pictures or videos were not displayed in the tweets and could only be seen by clicking on the URL, which lead to Facebook. All in all, a comparison of two countries would have been biased and a proper analysis of Twitter content also relies on the source.

Furthermore, there was a large numbers of 404 errors in links that were posted in tweets which were supposed to link to a page on the Movember UK website.

There are limitations concerning the qualitative research method that was used in this study. The generalizability of the studied subject of MovemberUK cannot be guaranteed, as the results may be a country-specific and also not generalizable to other non-profit or for-profit organizations. Moreover, the analysis of data and developing the typology was time consuming, which prohibited analyzing a larger set of data and making working comparisons in between other countries. Furthermore, researcher bias is more likely to occur in qualitative research settings than it is in quantitative research.

10.1 Further research

After conducting this study, further research is necessary into more hard facts about the organization and how the Twitter campaign has not only influenced the conversations that took place on social media, but also how flow of donations presented itself during the November campaign. The number of cancer screening examinations and the diffusion of cancer among the population in relation to the Movember campaign are interesting topics as well. However, this requires the checking of many variables, as not all potential donors or cancer patients follow the Movember campaign via the Twitter channel.

In addition, comparing the UK campaign to other active country channels of Movember can lead to more insight into the reliability of the measures undertaken in this study. At hand of further research, the conceptual model could be tested in other settings, country-specific for Movember, but also for different organizations.

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13. APPENDIX

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.081	27.282[b]	2.000	617.000	.000
	Wilks' Lambda	.919	27.282[b]	2.000	617.000	.000
	Hotelling's Trace	.088	27.282[b]	2.000	617.000	.000
	Roy's Largest Root	.088	27.282[b]	2.000	617.000	.000
Categories	Pillai's Trace	.020	.907	14.000	1236.000	.550
	Wilks' Lambda	.980	.907[b]	14.000	1234.000	.551
	Hotelling's Trace	.021	.906	14.000	1232.000	.552
	Roy's Largest Root	.015	1.308[c]	7.000	618.000	.244
Medium	Pillai's Trace	.042	3.350	8.000	1236.000	.001
	Wilks' Lambda	.958	3.361[b]	8.000	1234.000	.001
	Hotelling's Trace	.044	3.372	8.000	1232.000	.001
	Roy's Largest Root	.037	5.682[c]	4.000	618.000	.000
Categories * Medium	Pillai's Trace	.093	1.110	54.000	1236.000	.275
	Wilks' Lambda	.909	1.110[b]	54.000	1234.000	.274
	Hotelling's Trace	.097	1.111	54.000	1232.000	.274
	Roy's Largest Root	.063	1.436[c]	27.000	618.000	.072

a. Design: Intercept + Categories + Medium + Categories * Medium

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Figure 6: Multivariate Tests

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	num_favorites	5474.899[a]	38	144.076	4.148	.000
	num_retweets	82545.339[b]	38	2172.246	3.482	.000
Intercept	num_favorites	1808.821	1	1808.821	52.073	.000
	num_retweets	15638.416	1	15638.416	25.065	.000
Categories	num_favorites	130.188	7	18.598	.535	.808
	num_retweets	2831.430	7	404.490	.648	.716
Medium	num_favorites	630.902	4	157.725	4.541	.001
	num_retweets	4798.551	4	1199.638	1.923	.105
Categories * Medium	num_favorites	1242.861	27	46.032	1.325	.127
	num_retweets	23853.592	27	883.466	1.416	.080
Error	num_favorites	21466.830	618	34.736		
	num_retweets	385582.141	618	623.919		
Total	num_favorites	35376.000	657			
	num_retweets	550555.000	657			
Corrected Total	num_favorites	26941.729	656			
	num_retweets	468127.479	656			

a. R Squared = ,203 (Adjusted R Squared = ,154)

b. R Squared = ,176 (Adjusted R Squared = ,126)

Figure 7: Tests of Between-Subjects Effects