Measuring The Performance Of Social Media Marketing In The Charitable Domain

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Abstract
Social media services offer a new avenue for non-profit organizations (NPOs) to initiate viral and word-of-mouth marketing. Due to the widespread adoption of these sites, there is the potential for this type of marketing to reach a large audience. The emergence of social media as a new marketing platform leads to fresh challenges in that the online nature of it creates difficulties in attributing actions of intent on social media to real, meaningful action that can help NPOs. This paper provides an interdisciplinary approach to discovering the relationship between actions on social media and the performance of NPOs' social media marketing campaign. A framework is proposed which distinguishes, tracks and measures different stages of social media marketing activity in order to determine its success. The framework provides a number of metrics - taking into account the disciplines of computer science and management - that can be used to assess performance of NPO campaigns, and is tested on two sample charities. Future research directions for this project are then discussed.

Author Keywords
Social media, non-profit organizations, marketing, performance, measurement, web science

ACM Classification Keywords
J.1. ADMINISTRIATIVE DATA PROCESSING: Marketing

General Terms
Design, Management, Measurement, Performance, Verification

Introduction

As the current economic climate puts increasing pressure on non-profit organizations (NPOs), the use of social media technologies for spreading viral, word-of-mouth marketing in a cost-effective way by NPOs is also increasing. The extent of this uptake is now reaching the point where the use of these services is considered essential in order to perform adequately in this space [12].

Shifting to social media as a platform for marketing does, however, lead to new challenges that require addressing before the effects of this change can be fully understood and realized. It is currently not possible to determine the extent to which any offline action occurs as a result of online actions of intent via social media. Consequently, methods of how to measure the performance of this type of marketing by analyzing data from social media are needed. By successfully measuring and informing a campaign, it may ultimately be possible to discover a relationship between the online actions which may represent an inclination to support the cause, and the resulting 'real' action that subsequently occurs.

This paper describes the initial stages of the development of a measurement framework to examine the relationship between actions on social media and the performance of marketing by NPOs. Findings from a pilot test to ensure that the foundations of this framework are suitable for the specified task of monitoring marketing success are also discussed, before the possibilities for future work and development are considered.

Background

Previous research has found that, prior to the relative pervasiveness of social media, techniques for measuring marketing by NPOs focused on generally unsophisticated "accounting" metrics [1]. Little attention appears to have been paid to tracking the perception of the organization by their audience and instead the emphasis was on quantifying financial values such as the number of new donors [1].

In the social media environment, focusing on this type of measurement introduces challenges relating to the phenomena of "slacktivism" - a distinctive form of activism where digital actions are carried out to create the same positive feeling as real activism, but without the same levels of cost or risk [9]. Additionally, many activities that people may carry out on social media have been classed as "interpassive" rather than interactive – indicating that because they replace real action, they do not provide the same level of interactivity or show equal amounts of commitment as the offline equivalent [8].

Instead, new aims such as "sustained engagement" are now sought through viral campaigns and word-of-mouth (WOM) marketing on social media, whereby supporters of an organization are actively involved with contributing to the organization's social media presence and can potentially increase the brand's value on the Web [5]. It has yet to be fully determined, however,

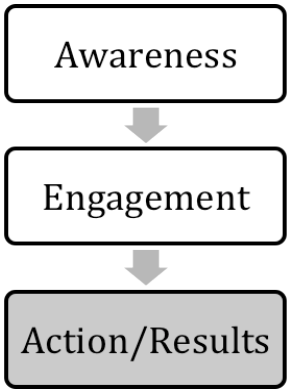

Figure 1: Stages to Achieve and Measure in a Charitable Marketing Campaign

whether the majority of action on social media that occurs around marketing campaigns is actually worth anything to the organization involved. This highlights the need for new methods of measurement in this area that focus more on the engagement with the audience than the financial returns.

Research Aims

The overall aim of this research is to determine how actions on social media relate to the performance of marketing in the NPO domain. In order to achieve this, a number of questions require answering:

- What opportunities exist for NPOs to use social media for marketing?
- How can the progress of such marketing campaigns be tracked?
- How can it be determined whether a social media campaign is successful?

The relationship between actions of intent on social media and real, charitable action can then be determined by using these findings to construct a framework that can measure digital campaigns.

Studying these issues from the constraint of any single discipline would limit the understanding of the effect the Web is truly having on this topic. For this reason, the disciplines of computer science and management in particular must be combined. Doing this will lead to a synthesized understanding of the area that can be used to develop a framework of metrics, which can track the performance of various aspects of social media marketing, and will be targeted towards non-profit organizations.

Towards a Framework for Measuring Social Media Marketing

In order to begin to attempt to measure this type of marketing, an initial framework for measurement has been devised. Previous work had begun to categorize interactions and behavior on social media, and it was observed that user actions on these sites might not necessarily mean that a user is actively engaging with the campaign [8]. Due to the interpassive nature of many of these actions, it was noted that different levels of interaction could be distinguished as 'stages' that a marketing campaign may hope to achieve from an audience member (Figure 1).

It was recognized that different metrics would be suitable for measuring the various phenomena at each of these identified stages. This would allow progressive measurement of the campaign to occur. Additionally, at each stage there are challenges in determining whether any interaction actually took place – such as knowing whether a marketing message was actually seen by a particular user.

The first stage was identified as 'awareness' based on numerous publications which state that raising awareness of a cause is often one of the main objectives of any campaign [4][6][9]. This reflects the aim of making people aware of an NPO's cause, but will likely fail to differentiate between interpassive users on social media who imply they are interested in a campaign but have no intention of actually supporting it. Metrics for this stage were chosen to have some similarity to the financial metrics used in previous charitable marketing analysis and so the key metric is 'audience size' (the number of followers who could *potentially* see a message, as it cannot be determined

whether every follower actually saw the tweet). The audience size is an obvious measure of the campaign's outreach, but does not indicate that any interaction from the users has occurred. It can, however, be used in calculations for engagement to determine the proportion of the audience who has been shown to be interacting. In addition, 'mentions' was used as the number of users who are aware and talking about the organization.

Developing from simply being aware of a campaign, the next stage was noticed to be 'engagement', which would indicate that a supporter is sufficiently interested in the campaign to interact with it and show a higher level of support. As with awareness, engagement is referred to in many existing articles on this topic, and is often described as the objective of any marketing campaign [5][6]. Actions at this stage are less likely to be – but could still be - interpassive and consequently represent a somewhat more valuable form of interaction. This may indicate an inclination to further support the organization, and could be useful in determining the campaign's success. The number of 'retweets' and 'replies' were identified as essential metrics for measuring the interaction of an audience with the organization, as they are the key features that display interaction on Twitter. Additional metrics for this stage were also chosen, consisting of: 'feedback percentage' based on the methods described in [7] and [11] to show the proportion of users actually engaging with the campaign; and 'URL click through rate' (URL CTR), adapted from Kaushik's proposed method in [10] to assess the number of clicks on a shortened link. As these metrics assess and analyze more committed interactions than simply following or mentioning a Twitter account, it is believed that they will be useful in determining the overall performance of a marketing campaign.

A final stage was identified as the action and results that may occur as a consequence of the social media marketing. However, assessing the performance of this stage could not be carried out using the data available from social media and was not focused on at this early stage. This framework therefore currently focuses only on the stages of awareness and engagement, and no metrics were chosen to attempt to quantify this final step (Figure 2).

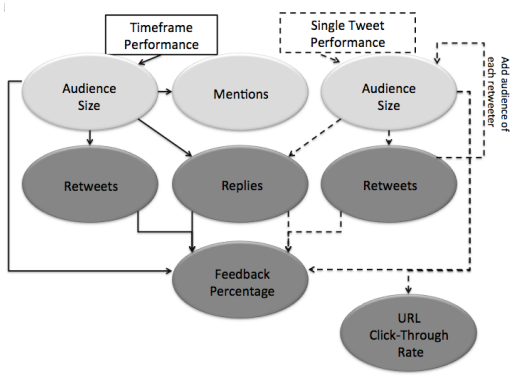

Figure 2: Proposed Framework of Metrics

Preliminary Testing and Findings

Validating the framework's suitability and usefulness involved carrying out a pilot study on two purposively chosen cases that were selected for their previous and predicted use of Twitter. The UK-based Dogs Trust charity was chosen, having previously attributed Twitter with the successful re-homing of dogs [3]. It was believed that their use of the network would therefore be relatively advanced. The World Food

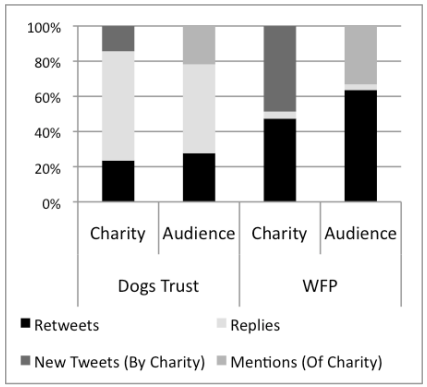

Chart 1: Breakdown of Tweets collected

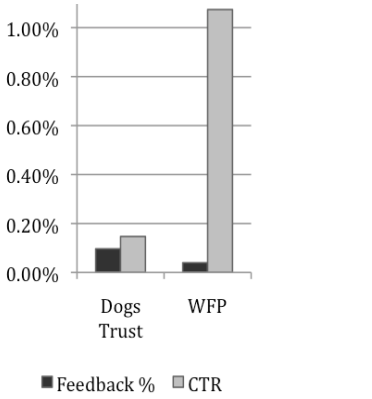

Chart 2: Engagement measures on a single sample tweet, showing the percentage of each organization's audience (including the followers of anyone who retweeted the message) who interacted with the message by retweeting or replying (Feedback %), or clicking on the link in the tweet (CTR).

Programme (WFP) was also selected as a successful international organization. Due to the topical hunger crisis that was occurring in East Africa at the time of the study it was believed that they would be significantly active on social media and could therefore suitably represent charitable use of the services. Data was captured using a Java program that queried the Twitter Search API at hourly intervals for a period of 2 days. All tweets that were from, or in any way referred to, the two chosen organizations' accounts were collected (including retweets, mentions and replies).

Analysis of the data indicated that there is a distinction between awareness and engagement that can be exposed by using the metrics in this framework. This indicates there is potential for succeeding in the aim of tracking the progress of a social media campaign. The most obvious example of this is the breakdown of tweets from each organization and their audience that shows that - despite a much larger audience and international presence - the WFP appears to be engaging much less with their audience than the Dogs Trust (Chart 1). As the Dogs Trust believe their social media work is responsible for achieving their aim of finding new homes for uncared for dogs, it seems that they are acknowledging the need to engage their audience in conversation, and are performing well at this – according to the large number of replies from both their own account and the audience to them. This may by indicative of success in their campaign, which shows there is the capability to determine success of this type of marketing. In contrast, the WFP appear to use Twitter more for spreading word of what they are doing, rather than engaging their audience, who respond to this by retweeting the news. While retweeting is a sign of engagement, and is prominent for the WFP, the feedback percentage metric shows that this occurs to a much lower extent than the engagement through replies observed in the Dogs Trust data (0.15% for WFP, compared to 1.27% for Dogs Trust). This demonstrates the contribution of the framework's varied metrics by highlighting the fact that merely counting followers and their interactions is not enough as these values can give misleading interpretations of actual rates of engagement.

When analyzing the performance of an individual message from each charity, it was found that the metrics provided differing results (Chart 2). The Dogs Trust scored a higher feedback percentage – again indicating that a higher proportion of their audience was inclined to interact with the content that they were offering. The URL CTR, however, indicated much higher engagement for the WFP, which according to suggestions in the literature may be a result of the popularity of individuals who retweeted their message [2]. These results suggest that further refinement may be needed between the different types of engagement that can be shown by the data available.

Contribution and Further Work

This research has identified issues in methods of measuring performance of marketing campaigns on social media by NPOs. Consequently, a framework of metrics that can begin to be used to analyze such marketing has been produced. Validation of this framework from testing on two contrasting cases has shown that it is largely successful for this purpose.

These early findings are encouraging in the search for a suitable system of measuring charitable marketing performance – especially given the situation many of

these organizations are finding themselves in. However it is clear that further work and input is still required to understand the relationship between actions of intent on social media, and the resulting 'real' action occurring offline. Despite this, it seems that the proposed framework does have potential for, and is appropriate for measuring social media marketing by charities. With further development, and with research into what other data is available and what subsequently can be measured – especially from social networks other than Twitter – it is believed that a reliable framework can be constructed for use in this area. The aim of determining the relation between actions on social media and offline results can then be achieved.

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