

# Insights From Brands in Facebook

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## ABSTRACT

Companies are increasingly turning to social media as a way to engage with their customers and to promote their brand and products. We analyzed the content of Facebook fan pages of the top 100 brands to gain insight into how companies utilize social media. These brands span 14 different categories from fashion and apparel to computer hardware. We find that different brands use different types of posts and get varying levels of engagement from users based on their business category. Interestingly, 45.53% of posts contained a reference to a company or a person with many of the companies referencing others.

## Categories and Subject Descriptors

J.4 [Computer Applications]: Social and Behavioral Sciences

## Keywords

Social media, electronic commerce, Facebook

## 1. INTRODUCTION

With over 70% of the Fortune 500 companies having a Facebook presence, companies are viewing Facebook as a legitimate platform for customer engagement and brand promotion. While there has been a wide range of research published on online social networks, analyzing how social networks are being utilized by companies has received little attention.

On Facebook, users can perform three actions on each post: like, comment, and share. Out of all of these, sharing is probably the most beneficial for a company because it results in the post being displayed in the user's friends news feed. This is effectively free advertising and promotion for the company and their products. Furthermore, in 2011 Facebook introduced fan pages, which dramatically changed how content is presented to users and is different from when the majority of the prior research was done. This structural

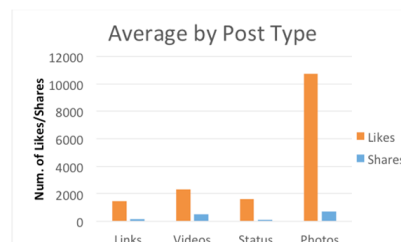


Figure 1: The average number of likes and shares by post type, heavily skewed towards photos. Sharing is more consistent across all post types than likes.

change minimized the appearance of comments on fan pages and confined any user posts to a single timeline item. Our research focuses on user engagement measured by likes and shares along with content analysis of the posts. Previous research on corporate fan pages have focused on post content and user engagement [2], but have not included analysis of sharing of posts by users. From a marketing perspective, a study that analyzes the influencing factors in terms of characteristics of the content communicated by the company is presented in [1].

## 2. DATA ANALYSIS AND FINDINGS

Wall posts from the Top 100 brands of 2012 listed by Interbrand<sup>1</sup> were collected from a 30-day period ending July 17, 2013 using Facebook's public API. Of the 100 companies, 94 had active pages (one notable exception was Apple), and 75 had posts that were publicly available through the Facebook API. A total of 2,650 posts were collected and analyzed. These posts consisted of only posts that were made by the companies and were publicly available.

There are four types of posts that a user could see when visiting a fan page: *status*, *links*, *photos*, and *videos*. Of those four types, photos consist of 70% of the posts and links are 26%, following by status (3%) and videos (1%). The average number of likes and shares by type is shown in Figure 1, and shows a similar bias towards photos being the most liked/shared. The other three types of post showed a similar level of engagement with themselves.

This can be further broken down into categories based on the company type, shown in Figures 2. The category that a company belongs to is self-selected from a predefined set

<sup>1</sup><http://www.interbrand.com/en/best-global-brands/2012/Best-Global-Brands-2012.aspx>

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**Figure 2: Likes and shares broken down by company and post type.**

and are listed in the companies “about” section on the fan page. Some example categories are Clothing, Baby goods, Electronics, and Company (a generic term) – a total of 17 categories were listed in the 100 brands. If a company had multiple categories listed, then one was chosen arbitrarily. The number of shares and likes per category seemed to be similarly proportioned to the average number by type shown in Figure 1. Overall cars and products and services had the highest average likes and share, and also had a high percentage of engagement. Table 1 shows the engagement by brand for a sample of the data set.

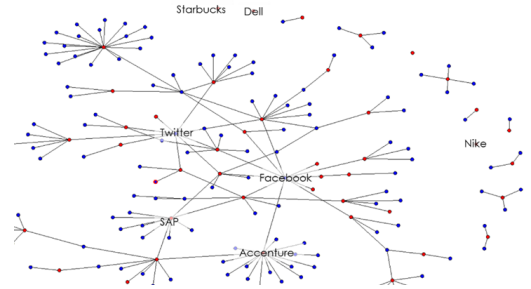
Engagement was measure by the average likes divided by the total number of users who have liked the page. Baby goods had a high number of status updates that were shared, and upon further investigation, it was determined that a large portion of their status updates contained coupons. Allianz was considered an outlier because the because of the relatively few number of page likes compared to the rest of the companies, with an overall average engagement of 0.29%.

The likes and shares can be further broken down by post type (Figures 2). The only company that was heavily skewed by type and category was Pampers, which was the only company listed in the Baby goods and services with an overall average engagement of 0.29%. Most of the status updates were coupon offers and also consisted of fill in the blank questions that resulted in high engagement of the fans.

We are also interested in studying the presence of entities in the posts for identifying specific relationships based on entity types likes names, companies, organizations, and location to name a few. All posts were processed using an internal Named-Entity Recognizer (NER) tagger. The most frequent type of entity mentioned were company names (23.37%), followed by person (22.16%), date (18.33%), and location (15.78%). This distribution is expected because brand names are often mentioned preceding product names such as Honda CR-V or Samsung Galaxy S.

Brand	% Eng.	Page likes	Avg. # of likes
Allianz	11.68%	843	98
Nike	0.72%	15,169,480	109,699
Louis Vuitton	0.44%	14,599,240	64,695
Intel	0.39%	21,449,590	84,290

**Table 1: Percent engagement of company pages as measured by the average number of likes divided by the number users who liked the page.**



**Figure 3: Graph showing the relationship between companies that mentioned others in their posts.**

We also computed the number of times an entity was mentioned on Facebook, but does not allow us to understand the relationship between companies. To investigate this, a graph was made that maps the relationship between the entities based on the content of their posts. In the graph shown in Figure 3, red vertices are the companies in the Top 100 brands, blue vertices are other companies not in that list. Edges connect companies that were mentioned in at least one of their posts. Both Twitter and Facebook were also discussed in others’ posts, but companies like Dell, Starbucks and Nike did not mention any other company. Exploring the graph of companies can be useful for determining relationships amongst companies, sectors, markets, and see how those related to other factors outside of social media such as stock price.

### 3. CONCLUSIONS

We conducted an exploratory study on Facebook pages from a pure electronic commerce perspective focusing on top brands. Our analysis shows that the majority of posts were photos and those were also the most liked and shared. The number of engaged fans was relatively low (0.29%), but we could not determine how consistently engaged the users were. Based on the NER analysis, we can see that a large number of the companies mentioned others (23.37%)

### 4. REFERENCES

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