Blog Popularity And Activity On Social Media :
An Exploratory Research

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INTRODUCTION

The bursting of the dot-com bubble in the autumn of 2001 marked a turning point for the web. This last decade has seen the advent of yet another bubble-only this time, it may not be a bubble after all, but a revolution. This revolution is known more generally as Web 2.0 and largely encompasses what is now the buzz word with marketers around the globe-Social Media.

In the words of Tim O' Reilly, who first coined the term Web 2.0,*"Web 2.0 doesn't have a hard boundary, but rather, a gravitational core. You can visualize Web 2.0 as a set of principles and practices that tie together a veritable solar system of sites that demonstrate some or all of those principles, at a varying distance from that core."*

However, there is still a huge amount of disagreement about just what Web 2.0 means, with some people decrying it as a meaningless marketing buzzword, and others accepting it as the new conventional wisdom. Web 2.0 is more than a temporary buzzword. Web 2.0 is seen as a new philosophy of information management; a group of people collaborating to create and share information. The result of this cooperation is the creation of collective intelligence by a common self-regulation quality assurance process. The term Web 2.0 is mostly applied to emphasize the differences of emerging communities compared to earlier forms of online communities, encompassing various dimensions - technology, attitude, philosophy. In order to enable community-building, the services provided for Web 2.0 communities consist in general of three components:

❀The main focus lies on content and services for collaborative creating, management, updating and sharing of content. The specific form of the services can vary depending on the type of content: text, links, videos or pictures.

❀Services and automatic update procedures that evaluate each user input and always create a new common state of knowledge and content or as some authors explain it, mechanisms for creating after each input, the newest stage of collective intelligence.

❀Trust building services as ratings, voting and the similar, are also the foundation for the collective intelligence services.

The terms social network media has most often been used interchangeably with the term *"Web 2.0"*. Constantinides and Fountain (2008) identified the following principal categories of social media:

❀ **Blogs:** Comprising individuals' or firms' online journals, often combined with audio or video podcasts.

❀ **Social Networks:** Applications allowing users to build personal web sites accessible to other users for exchange of personal content and communication.

❀ **Content Communities:** Websites organizing and sharing particular types of content.

❀ **Forums/Bulletin Boards:** Sites for exchanging ideas and information usually around special interests.

❀ **Content Aggregators:** Applications allowing users to fully customize the web content they wish to access.

To sum up, social network sites can be seen as alternative communication tools, which support existing relationships and activities in a fun and colorful way that can enrich the users' experiences. Web 2.0 communities have gained an increasing impact on businesses and should ,therefore, not be neglected from an academic perspective. New business models can arise and existing business models are highly affected by Web 2.0 communities.

BLOGGING

One of the most highly touted features of the Web 2.0 era is the rise of blogging. At its most basic, a blog is just a personal home page in the diary format. A blog (a contraction of the term *"web log"*) is a type of website, usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as

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graphics or video. Entries are commonly displayed in reverse-chronological order. Most blogs also allow visitors to add a comment below a blog entry. Some blogs focus on a particular subject, such as political blogs, travel blogs (also known as travelogs), house blogs, fashion blogs, project blogs, education blogs, niche blogs, classical music blogs, quizzing blogs and legal blogs. These are also called genre blogs [28].

FACEBOOK

With the advent of Web 2.0, Social Networking Websites (SNS) have been one of the main internet success stories in recent years. Facebook has received most of the attention as it continues to become a growing success. On Facebook, users can create profiles with photos, lists of personal interests, contact information and other personal information. At the end of 2007, Facebook announced the launch of Facebook Pages. Individuals or companies can create *"Pages"* which allows users to *"Like"* the individual, product, service, or concept. Pages look and behave much like a user's personal private profile, with some significant differences. Facebook Pages present a massive opportunity for brands to directly engage with their existing and future customers, even the occasional passer-by [8, 26].

TWITTER

Twitter is a social networking and micro blogging service that enables its users to send and read messages known as *tweets*. Tweets are text-based posts of up to 140 characters displayed on the author's profile page and delivered to the author's subscribers who are known as *followers*. When a person feels the need to subscribe to a person or blog, it means he/she wishes to get regular updates. Hence, becoming a *"follower"* is a direct result of the popularity of the author's writing [27, 28].

LITERATURE REVIEW

To clearly understand this revolution, one has to know what exactly Web 2.0 is. There is still a huge amount of disagreement about just what Web 2.0 means, with some people decrying it as a meaningless marketing buzzword and others accepting it as the new conventional wisdom. Tim O'Reilly, describes seven principles for a company to be worthy of being called a Web 2.0 company [15]. Research has been done to explore social-networking sites like Facebook in order to understand their recent success and popularity. Authors conduct a user study to unveil unique user experiences [10]. Studies have been conducted with regard to how social networking sites are used by people, i.e. to know how their networks of *"friends"* relate to their other online (e.g., instant messaging) and offline networks [18]. Some authors argue that despite recent advancements in user-driven social media platforms, tools for studying user behavior patterns and motivations remain primitive. They highlight the voluntary nature of user contributions, and that users can choose when (and when not) to contribute to the common media pool. They demonstrate how a system administrator designs incentive mechanisms to improve system performance [17]. Furthermore, the data available on these sites (esp. blogs, etc.) is enormous and relevance of information is a matter of concern. To make this immense body of knowledge accessible, effective answer retrieval is required [5, 1]. The researchers present a general ranking framework for factual information retrieval from social media and provide an insight into which features are significant for social media search and retrieval. This may be a building block towards integrating social media content for effective information access [5]. Researchers have also looked at what kind of content actually resides in these networking sites, i.e. in the discussions that occur. As a result of this wave, people are hooked to social media all through the day-be it students or working professionals. Researchers have tried to find out the impact of social networking on organizations-the various applications, benefits and risks associated with social networking. Organizations which can harness this innate human ability to manage knowledge will be able to lower transaction costs and become more profitable [21]. Adding to such studies, there also has been work on how social networking can be applied to up-skill the employee in the company, and facilitates the creation and reuse of knowledge [9].

There has also been some qualitative work towards answering the most frequently asked questions by organizations today- why and how a message sent by a company may be more effective if it is targeted at individuals through social network media. The authors present a model of direct and indirect targeting of buyers [16]. Furthermore, noteworthy is the work done in the context of paying online for premium services, i.e. effect of consumer involvement on the willingness to pay on media websites. Many websites offering proprietary content have recently begun to encourage user participation and provide consumers with a virtual community through user-generated content features. It is likely

that in addition to benefiting other consumers, the act of participation positively affects the experience of the contributing consumer and ,therefore, his or her willingness to pay for premium services [14]. There has been work to know if purchases are influenced by friends in social networks. Social networks, such as Facebook and Myspace, have witnessed a rapid growth in their membership. However, these businesses have not fully explored the power of their members to influence each other's behavior. The authors have specifically examined three questions: do friends influence purchases of users in an online social network? ; Which users are more influenced by this social pressure? ; and can we quantify this social influence in terms of an increase in sales and revenue? [11].

How social networking can be used to create various business models and how successful they have been has also been explored by some authors. The present paper explores online social lending, an innovative venture that represents a re-intermediation in financial services. Borrowers and lenders now have access to online financial information services. Researchers conducted a structural analysis of ZOPA (2007), a newly founded venture in online social lending, whereby borrower lender interactions take place within an open and transparent environment using discussion boards and blogs. They analyzed the possible attractions and risks of ZOPA's service to customers, from the perspective of social lending and social networking, using public data from ZOPA's website [7].

Social network marketing can be easily classified as one where word-of-mouth (WOM) holds the key. Word-of-mouth (WOM) communication is a major part of online consumer interactions, particularly within the environment of online communities. The authors report the results of a two-stage study aimed at investigating online WOM: a set of in-depth qualitative interviews followed by a social network analysis of a single online community [6]. Studies have been conducted in order to improve the understanding of the effects of WOM marketing by taking advantage of new, detailed tracking information made possible by the Internet. Using data from an online social networking site, the authors quantified the effect of WOM referrals, which are recorded electronically, on new member sign-ups to the site (i.e. customer acquisitions). They compare the effect of WOM with that of traditional marketing activity and examine its carryover dynamics both in the short run and in the long run [19]. Paul Gillin, in his book, *'The New Influencers: A Marketer's Guide to the New Social Media'*, explores how social media offers unprecedented opportunities for developing the type of discourse that will lead to deeper insights into customer thinking and needs [8].

The next step that the companies are now struggling with is a right mix between traditional marketing and the new wave of marketing through social media networks. A widely discussed subject of interest has been ROI and social media. According to Connie Benson, *"Web Analytics provide traditional attributes of page views, unique site visitors, etc. This alone isn't adequate anymore because customers are talking to each other. It's about engagement with your customers, your potential customers, and your critics, at every level of social interaction that modern communication has to offer."*

That is why online marketing efforts are increasingly geared towards new metrics that are following what is happening in social networks. Social media employing web analytics, buzz monitoring and community management listening can help to zero in on your target demographic [22]. A report by WSI mentions the trends used in the measurement of ROI for social media, and the metrics used to measure the same [20]. Other studies in the field of ROI for social media includes one that studies ROI of online PR releases majorly through social media sites, which defines the criteria for evaluating its success [2]. Also, the global economic crisis has forced several brands to their knees. Many companies deem investing in brand building activities as *"uneconomical"* and all resources are instead focused on increasing sales. However, measuring advertisement impact and understanding a brand's position are key parameters for succeeding in differentiating a brand offer from competition. Unfortunately, market research is sometimes considered as one of those business areas that can be cut during a recession. Social media has presented a new way of conducting brand research among both young and old customers at a low-cost [3]. Research has been done on online brand communities. The three characteristics of brand communities that were identified by several scholars are consciousness of kind, moral responsibility, and shared rituals and traditions. Researchers have developed scales to measure the extent of member participation and investigated the relationship between members' participation and their consciousness of kind, moral responsibility, and shared rituals and traditions [12].

RESEARCH GAP AND MOTIVATION

With social media coming to the fore in a big way as a marketing medium, brands have faced yet another dilemma-measurement of ROI of social media. Researchers have studied the metrics that can determine the ROI, but there is no
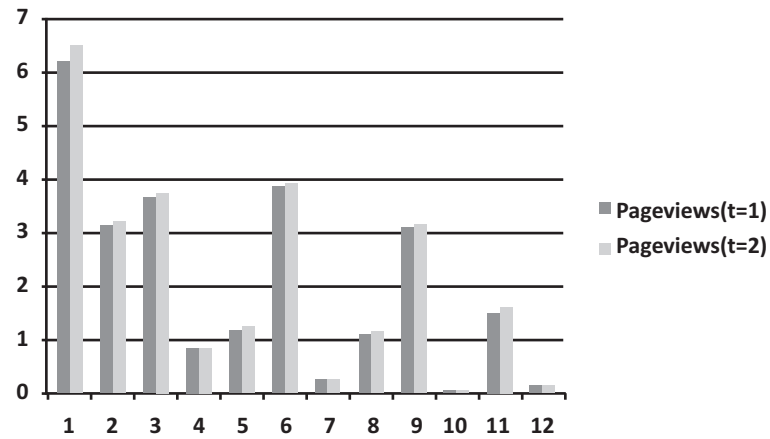
Figure 1 : Change In Pageviews (Entertainment)
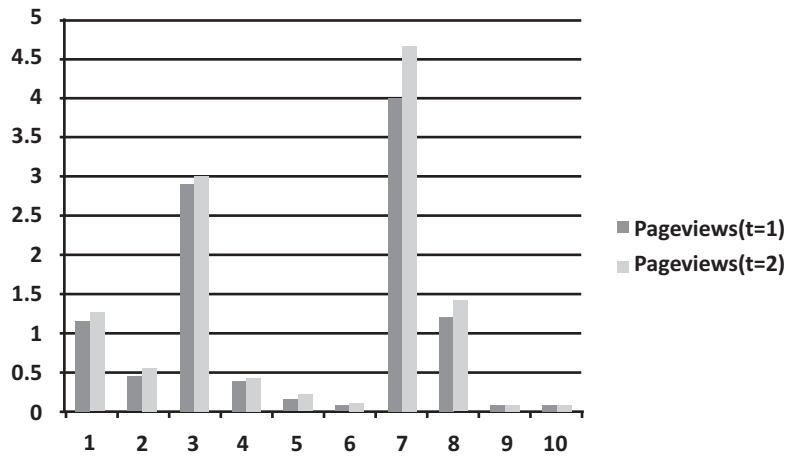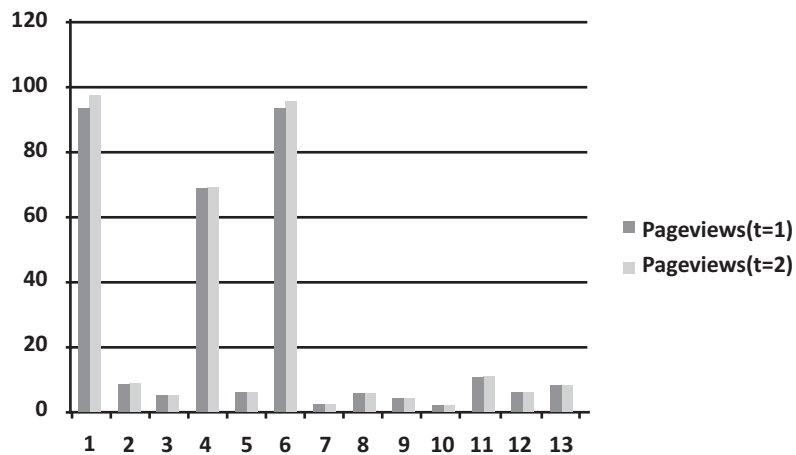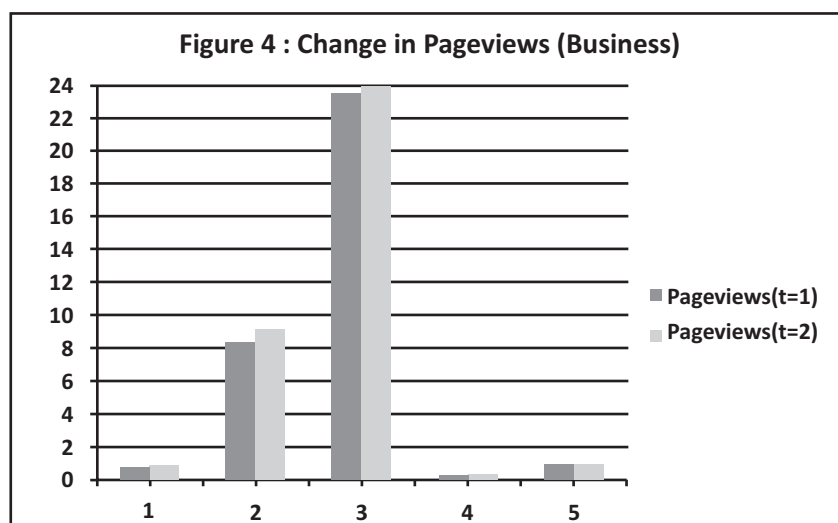

Figure 2 : Change In Pageviews (Green)

Figure 3 : Change In Pageviews (IT)

Figure 4 : Change in Pageviews (Business)

one fool proof list of metrics that can be of help to social media marketers across industries. Most of the ROI measurement of social media is largely focused on what the goal of the social media marketing campaign is. E.g. Dell claims to have had sales of millions through its Twitter campaign. Dell, being a largely product based enterprise, sales are an important metric for its media campaigns. However, when we come to blogs, the story is different. For most blogs, the major source of revenue is the advertisements on the blogs and their click through rate is the source of revenue for most. Hence, the traffic on the blogs is a metric that can lead to direct assessment of ROI. A very accurate measure of traffic is the number of pageviews of the particular blog. Hence, this paper aims to study the correlation between the blog traffic i.e. the pageviews and their activity on prominent social media sites such as Facebook and Twitter. It can be easily hypothesized that Facebook fans and Twitter followers directly impact the popularity i.e pageviews of the blog that is being promoted. Hence, we aim to test this hunch through statistical data. This study will also give an insight into how different categories of blogs correlate with Facebook fans and Twitter followers, so as to suggest what category of blogs need to be more active on which of the two social mediums.

METHODOLOGY

❀ **Sampling Frame and Sample size:** Technorati is a highly rated blog search engine [23]. The sample chosen are from the top 10 blogs from the blog directory of Technorati for a particular week in April 2010. The directory is divided into the following categories:

❀ Entertainment;
❀ Sports;
❀ Business;
❀ Information technology;
❀ Green;
❀ Politics.

An Exploratory research of the above mentioned blogs revealed that the following categories were most updated in terms of blog posts :

❀ Entertainment;
❀ Information technology;
❀ Green;
❀ Business.

Hence, four categories namely entertainment, information technology, green, and business were chosen as samples for which the data was collected.

DATA COLLECTION

The data for the top 10 blogs in all categories was taken for two consecutive weeks on a weekly basis. As the data varies almost on a daily basis, so the range of one week was considered to be suitable for this study. These two data sets at different times (t1&t2) were collected for the number of Facebook fans and Twitter followers of the blog. The data for Pageviews of the blog was collected on a weekly basis with the pageviews per million data for the past 7 days. The data was collected from websiteoutlook.com and Alexa.com, which are two websites that give data on search analytics [24,25].

RESEARCH FINDINGS

❋ **Change In Pageviews :** Both Facebook fans and Twitter followers seem to have a positive correlation with the pageviews of the blog. This correlation is also testified with the increase, although marginal, in the number of pageviews from time t=1 to t=2. This is true across all categories of blogs.

❋**Correlation Between Pageviews and Facebook Fans and Pageviews And Twitter Followers :** The data was analyzed using Pearson's correlation coefficient between pageviews of the blog and the number of Facebook fans on its Facebook Page. At 95% confidence intervals, the following correlations were found to be significant after using t-test to reject the null hypothesis that no relation existed between pageviews and Facebook fans.

❋**Null Hypothesis** H_0: p=0(No relation exists)

❋**Alternate Hypothesis** H_1: p<>0(Relation exists)

For each of the categories, there exists a positive correlation between the variables i.e. Pageviews and Facebook Fans as can be seen from Tables 1-4 . It can be inferred from the Tables that in 3 out of 4 categories, Facebook fans have a stronger correlation with the pageviews as compared to Twitter followers. The one exceptional case is that of the entertainment category, where correlation of Twitter followers is higher than that of Facebook fans.

Table 1 : Correlation Between Pageviews And Facebook Fans (Entertainment)			
Correlations (Entertainment)			
Variables	Parameters	Pageviews	Facebook Fans
Pageviews	Pearson Correlation	1	.368
	Sig. (2-tailed)		0
	N	12	12
Facebook Fans	Pearson Correlation	.368	1
	Sig. (2-tailed)	0	
	N	12	12

Table 2 : Correlation Between Pageviews And Twitter Followers (Entertainment)			
Correlations (Entertainment)			
Variables	Parameters	Pageviews	Twitter followers
Pageviews	Pearson Correlation	1	.526
	Sig. (2-tailed)		.009
	N	12	12
Twitter followers	Pearson Correlation	.526	1
	Sig. (2-tailed)	.009	
	N	12	12

Table 3: Correlation Between Pageviews And Twitter Followers (IT)			
Correlations (IT)			
Variables	Parameters	Pageviews	Twitter followers
Pageviews	Pearson Correlation	1	.414
	Sig. (2-tailed)		0
	N	13	13
Twitter followers	Pearson Correlation	.414	1
	Sig. (2-tailed)	0	
	N	13	13

Table 4 : Correlation Between Pageviews And Facebook Fans (IT)			
Correlations (IT)			
Variables	Parameters	Pageviews	Facebook Fans
Pageviews	Pearson Correlation	1	.781
	Sig. (2-tailed)		.002
	N	13	13
Facebook Fans	Pearson Correlation	.781	1
	Sig. (2-tailed)	.002	
	N	13	13

Table 5 : Correlation Between Pageviews And Facebook Fans (Green)			
Correlations (Green)			
Variables	Parameters	Pageviews	Facebook Fans
Pageviews	Pearson Correlation	1	.759
	Sig. (2-tailed)		.011
	N	10	10
Facebook Fans	Pearson Correlation	.759	1
	Sig. (2-tailed)	.011	
	N	10	10

Table 6 : Correlation Between Pageviews And Twitter Followers (Green)			
Correlations (Green)			
Variables	Parameters	Pageviews	Twitter followers
Pageviews	Pearson Correlation	1	.473
	Sig. (2-tailed)		.001
	N	10	10
Twitter followers	Pearson Correlation	.473	1
	Sig. (2-tailed)	.001	
	N	10	10

Table 7 : Correlation Between Pageviews And Twitter Followers (Business)			
Correlations (Business)			
Variables	Parameters	Pageviews	Twitter followers
Pageviews	Pearson Correlation	1	.678
	Sig. (2-tailed)		.004
	N	7	7
Twitter followers	Pearson Correlation	.678	1
	Sig. (2-tailed)	.004	
	N	7	7

Table 8: Correlation Between Pageviews And Facebook Fans (Business)			
Correlations (Business)			
Variables	Parameters	Pageviews	Facebook Fans
Pageviews	Pearson Correlation	1	.957
	Sig. (2-tailed)		.001
	N	7	7
Facebook Fans	Pearson Correlation	.957	1
	Sig. (2-tailed)	.001	
	N	7	7

CONCLUSION

Web 2.0 is clearly not a buzzword, but is instead a complete paradigm shift in all facets of marketing. Though there have been several research studies, there is no single definition as it is not only a term, but a completely new field of research with several models associated with it. There is, however, a growing consensus amongst all that this phenomenon revolves around collective intelligence and holds at its core high user interactivity, which is directly linked to their social networks. Hence, the term is interchangeably used with social networking and social media. Social media is at the core of Web 2.0, and provides a huge opportunity for brands to use them as effective marketing channels. However, as with any other channel of marketing, ROI is an aspect that most marketers look at when it comes to measuring the effectiveness of the channel. The study, therefore, examined a possible measure of ROI for weblogs (i.e. blogs) and how their promotions through two highly popular social networking sites, namely Facebook and Twitter, affects their popularity and in turn increases their revenue through advertisements. Pageviews is a direct measure of the traffic a blog attracts and hence, a correlation between pageviews and Facebook fans and Twitter followers was established to understand the effect of promotion of brands through social media. Both had a positive correlation across all blog categories and hence, it was concluded that a positive change in Twitter followers or Facebook fans increases the pageviews. Also, notable was the fact that with time, the pageviews increased primarily owing to an increase in fans or followers. Certain other facts worth noting were that the activity on Facebook and Twitter for blogs related to IT is high. This is more so because the people following such blogs are more tech savvy.

SCOPE FOR FUTURE RESEARCH

Further research can explore how communication variables (viz. awareness, comprehension, brand attitude, brand preference, etc.) for different categories of products and services are influenced by the presence of communication about these products and services on social media sites and if possible, figure out the metrics that may be used to measure the effectiveness of social media marketing campaigns in terms of their consequent effect on sales.

ACKNOWLEDGMENT

collection for this project under the guidance of the author.

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