

US hospitals on YouTube™: a test to the Altruistic marketing approach

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Abstract

Based on a systematical probability national sample of US hospitals that have taken advantage of YouTube™ videos, this study has investigated, with the content analysis approach, how hospitals have used YouTube™ videos to market themselves and to connect to users. The study has found that, though hospitals have not implemented YouTube™ videos as a routine marketing tool, their videos have been highly welcomed by users. After a comparison between the kinds of videos posted and users' views, it is found that users love educational videos and entertainment videos, which directly serve the users' interests, much more than advertising videos and informational videos, which dominantly serve hospitals' own interests. The findings suggest that a trickle-down process from larger hospitals to smaller hospitals in terms of YouTube™ video usage is happening and may continue and that hospitals should systematically use YouTube™ videos as a new marketing approach and be more engaged in altruistic marketing.

Keywords: Hospitals, YouTube™, Videos, Altruistic marketing, Users

Introduction

YouTube™, a video-sharing website established in 2005, has exerted tremendous influence in numerous areas of modern life. By December 2012, for instance, Korean pop singer/dancer Psy's 'Gangnam Style' performances had attracted one billion views on YouTube™.¹ YouTube.com was the second top website by traffic in the world in 2012 (see statistics at <http://www.statisticbrain.com/top-us-websites-by-traffic/>). Of the handful of multimedia sites at which videos can be posted, YouTube™ was responsible for 84% of the referrals

to other websites, according to John Pozadzides, CEO of iFusion Labs, whose website woopra.com analyzes website users for businesses.²

The impact created by YouTube™ relates to all ages in multitude of businesses, including the healthcare industries. 'At first, YouTube™ was for younger people, but we are seeing more mainstream use now,' said Diana Marx Prosi, vice president of marketing and business development of Detroit Medical Center (DMC), an early adopter of YouTube™.³ DMC began posting YouTube™ videos ranging from information on sinus surgery to cell-freezing for prostate cancer as early as 2007, when it received a tremendous number of hits resulting in increased business.³ By January 2013, YouTube™ videos posted by the Healthguru.com channel had attracted more than 467 million views and close to 70 000 subscribers (see details at <http://www.youtube.com/user/illumistream>). The whiteboard-style video '23 and ½ Hours: What Is the Single Best Thing We Can Do for Our Health?' (The video can be found at <http://tinyurl.com/8a4jvv9>) produced by Dr Mike Evans, director of Health Design Laboratory in Canada, was uploaded to YouTube™ in December 2011, was viewed by 25 000 people per day, quickly went viral, and had racked up more than two million views by the end of February 2012.⁴ Today, quite some US hospitals have tried to connect to its users on this social media website.

Hospitals have used video as an information device for decades.^{5,6} Educating patients about a procedure, preoperative preparation and postoperation follow-up, for instance, can ease some fears and encourage patients to be more engaged in their own care, according to Clarian Health Partners' officials.⁷ The development of information technology in recent years has resulted in easier production, dissemination, and viewing of videos, inspiring more healthcare providers to consider their use. The

280-bed Lawrence & Memorial Hospital in New London, CT, launched a new website in August 2011 that used video as a key component. Michael O'Farrell, director of public relations and media services for the hospital, said that such a plan would not have made sense 4 or 5 years earlier, but now that people can easily access and watch videos online and consider them to be a primary source of information, those at his hospital wanted to take advantage of this growing media channel.⁸ According to a survey of hospital marketing professionals by Acsys Interactive, a Farmington, CT-based digital media marketing firm, hospital marketers say that online video is one of the most effective of all the digital and social media tools available to them.⁸

Proficiency in commanding information technology correlates to patients' satisfaction, according to Solovy, Hoppszallern, and Brown (2008), who wrote:

Taken together, the patient satisfaction and quality indicator analyses provide the strongest evidence in the 10-year history of the Most Wired Survey and Benchmarking Study that information technology makes a difference in both the patient experience and the quality of care.⁹

Since digital video is one of the prominent Web 2.0 technologies, it is important to investigate how US hospitals have overall taken advantage of YouTube™ and how users have consumed such YouTube™ videos.

The current study constitutes a test on the notion of altruistic marketing. Altruistic marketing has been a business development strategy. Although the term is hardly defined, the core of the strategy is to make profits from a group of people by providing service, support, or benefits to them first for free so as to build trust and loyalty and bring a win-win outcome. In the healthcare context, patients' trust in a hospital staff is crucial, and building such a trust on social media is especially important today.^{10,11} Many hospitals provide patient education materials in texts, images, and videos on their websites to make their online users easy to find the information they need.¹² While such efforts can attract online traffic,¹³ they are altruistic in nature. Leslie Nolen, a nationally known expert on the art and science of selling wellness, believes that when altruism meets marketing, the result is free publicity, revenue now and later, phenomenal customer loyalty, and turbocharged word-of-mouth for a business.¹⁴ Business expert Don Scherzler said:

What makes altruistic marketing such a compelling strategy is that it is a marriage between business marketing goals and objectives with a broad range of 'feel-good' causes – such as helping others who are less fortunate, bringing supplies to a disaster area or supporting a youth sports team – the opportunities to apply the concept of altruistic marketing is endless.¹⁵

As Hastings and Saren pointed out, 'Marketing perspectives have also enabled health promoters to think about the most basic issue of their discipline: are they working with their customer groups to reach a mutually beneficial way forward, or simply seeking to impose their own solutions' (ref.¹⁶, p. 308–9). It will be interesting to find out to what extent altruistic marketing strategy is being applied by US hospitals, and how altruistic marketing is embraced by its receivers. This study can help hospitals better understand healthcare video content development and better position their marketing strategies.

Literature review

Empirical studies on how hospitals have used videos to conduct marketing are rare, and germane studies are even rarer. A few related studies of healthcare videos on YouTube™ have been contextualized to healthcare phenomena or diseases. For instance, Kim, Paek, and Lynn examined the prevalence, accessibility, and characteristics of eroticized smoking portrayal on YouTube™.¹⁷ Fat and Barrowman¹⁸ assessed YouTube™ videos for their efficacy as a patient resource for infantile spasms. Gooding and Gregory¹⁹ conducted a descriptive analysis of music therapy-related videos on YouTube™. Knösel and Jung²⁰ assessed the informational value, intention, source, and bias of videos related to orthodontics screened by YouTube™. Yoo and Kim examined how the topics of obesity are framed and how obese persons are portrayed on YouTube™ video clips.²¹ Finally, Fernandez-Luque *et al.*²² analyzed personal medical information disclosed in the comments under each of the sampled YouTube™ videos created by patients with multiple sclerosis.

All of the above studies examined YouTube™ healthcare-related videos from a specific angle but showed no overall pattern of video usage on the institutional level, as was this study's intention. Huang's 2009 study²³ is closely related to the current study. Huang examined the adoption of videos on US hospital websites in an attempt to find out how videos had been used by hospitals

for marketing purposes. Based on a systematic probability sample of all US hospital websites, Huang conducted a content analysis to measure the effects that hospital size, service quality, affiliation, and geographic population had on the diffusion of online healthcare videos. The study found that, although the critical mass for using videos on hospital websites had been reached, for the overwhelming majority of the hospitals, including those that were already using videos, there was still a long way to go for hospitals in learning how to harness the power of video for marketing and to make videos an integral and routine part of their marketing strategy. Although the current study focused solely on hospitals' presence on YouTube™, the research methods used in Huang's 2009 study informed the current study in multiple ways, such as comparing hospitals' performances and users' viewing data. Based on the literature review, the research questions were:

1. How have US hospitals used YouTube™ videos to connect to their online users?
2. What kinds of hospital videos on YouTube™ are popular?
3. How have hospital size and ranking affected a hospital's implementation and viewer reception of its videos on YouTube™?

Methodology

According to Ed Bennett, director of Web & Communications Technology at The University of Maryland Medical System, by October 2012, 634 (11%) of 5754 US hospitals (see statistics at <http://www.aha.org/research/rc/stat-studies/fast-facts.shtml>) had created a channel on YouTube™ (The data used to be available at Found In Cache at <http://ebennett.org/>. Since the data were later moved to Mayo Clinic's website and went through reorganization, Bennett provided the original data on an Excel sheet to the author for this study). One-third of these hospitals were drawn in a systematic probability sample. That is, every third hospital in the list was included in the sample. In total, 210 hospitals' YouTube™ channels were examined. Since different hospitals posted drastically different numbers of YouTube™ videos, only the most recent 20 videos from each hospital were sampled and coded to come up with a fair comparison. If a hospital did not have 20 videos, then all available videos from that hospital were coded. In total, 2560 videos were coded.

Coding content for each hospital on YouTube™ included the number of subscribers (The number

of subscribers were categorized as (1) 1–20 subscribers, (2) 21–50 subscribers, (3) 51–100 subscribers, (4) 101–300 subscribers, and (5) over 300 subscribers), number of videos uploaded in the past 12 months, total video views in the life span of a channel (YouTube™ video total views over the past 12 months were categorized as (1) 1–10 000 views, (2) 10 001–50 000 views, (3) 50 001–200 000 views, and (4) over 200 000 views), and 14 types of video content under four categories. In addition, basic information about each hospital, including how many beds each hospital had (hospital sizes were categorized as (1) smaller hospitals (1–300 beds), (2) medium-sized hospitals (301–600 beds), (3) large hospitals (600–1000 beds), and (4) Super-large hospitals (over 1000 beds)) and whether a hospital was ranked nationally or on the state level (hospital rankings were categorized as (1) best hospitals on the national level, (2) best hospitals on the state level, and (3) not ranked) was also collected from USNews.com to provide independent variables (see details at <http://health.usnews.com/best-hospitals>). Finally, whether these hospitals promoted their YouTube™ videos on their hospital website homepages was also examined.

Two coders went through coding training and coded the entries. The average intercoder reliability using Scott's Pi across all entries was .89.

Findings

How have US hospitals used YouTube™ videos to connect to their online users?

Over 12 months from October 2011 to October 2012, the average number of videos uploaded by US hospitals was 38; however, because of the high standard deviation (80) and high skewness (6.8) of the data, the median, 17, is a more precise description of the typical number of videos uploaded. The breakdown of the total number of videos uploaded when the data were recoded supports this claim (see Fig. 1). It is important to note that 14% of the U.S. hospitals established a YouTube™ channel but uploaded no

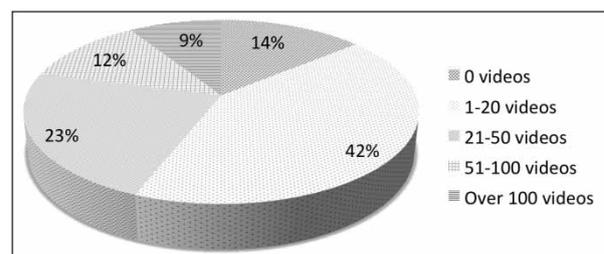


Figure 1: The total number of videos uploaded by US Hospitals to YouTube™ over 12 months.

video during the most recent 12 months though most of them did post videos before.

From the time each of the US hospitals established a presence on YouTube™, the average number of views of US hospital videos on YouTube™ was 111 572; however, because of the high standard deviation (245 167) and high skewness (5.25) of the data, the median, 23 281, is a more precise description of the typical number of total video views. The breakdown of the total video views when the data were made categorical supports this surmise (see Fig. 2).

The median number of subscribers for US hospital videos on YouTube™ was 30 while mean was 101. For the same reason as stated above, median is a more precise description than mean for this estimate.

Logically, once a hospital has spent great amount of time, effort, and possibly money, to put videos on YouTube™, it will promote its YouTube™ videos on its hospital website. An examination of these hospitals' websites showed that most hospitals (78%) promoted their YouTube™ videos on their home pages, 7% tucked away such videos on their inside pages, and 15% did not mention their YouTube™ videos at all.

What kinds of hospital videos on YouTube™ are popular?

On YouTube™, 14 types of hospital videos were detected, which can be grouped under four categories: advertising videos (34.49%), informational videos (36.37%), educational videos (25.32%), and

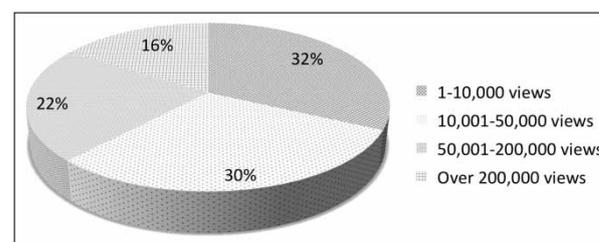


Figure 2: Number of total video views.

entertainment videos (3.82%) (see Table 1). A one-way analysis of variance test of the means of these four categories shows a significant difference ($F = 40.33$, $df = 3$, $P < 0.001$). A *post hoc* Tukey's honestly significant difference test demonstrated that the number of advertising videos and that of informational videos showed no significant difference, but all other categories presented significant differences with one another.

Out of these four categories, the first two, advertising videos and informational videos (70.86%), mainly promoted a hospital while the latter two, educational videos and entertainment videos (29.14%), mainly served users. Although the single type of most posted YouTube™ videos by hospitals was patient education videos (20.7%), obviously, hospitals had also made great efforts to promote themselves in different ways.

From the users' end, the first two categories of self-promoting videos (70.86%) attracted a total of 34.38% of views, but the latter two categories (29.14%) attracted a total of 65.62% of views. Although public service announcement videos

Table 1: Types of videos that US hospitals posted on YouTube™

Type of videos	Number of videos	Percentage (%)	Number of views	Percentage (%)
Advertising videos	883	34.49	243 806	18.03
Corporate identity	172	6.72	74 593	5.52
Department advertising	355	13.87	60 943	4.51
Recruitment	25	0.97	3032	0.22
Patient testimonies	331	12.93	105 238	7.78
Informational videos	931	36.37	221 028	16.35
News	206	8.05	25 356	1.88
Hospital information	407	15.9	105 238	7.78
Local information	9	0.35	695	0.05
Documentary	302	11.8	87 002	6.43
Leader greetings	7	0.27	2737	0.2
Educational videos	648	25.32	305 458	22.59
Patient education	530	20.7	122 495	9.06
Lectures	101	3.95	7672	0.57
Surgery process	17	0.67	175 291	12.96
Entertainment videos	98	3.82	581 816	43.03
Public service announcement*	38	1.48	528 716	39.1
Entertainment	60	2.34	53 100	3.93
Total	2560	100	1 352 108	100

*Rigorously speaking, public service announcement videos are not entertainment videos. Since such videos often embed a call for action in a more entertaining manner, they were expediently assigned to the entertainment videos category.

(1.48%) constituted one of the least-posted types of videos, they attracted the most views (39.1%).

How have hospital size and ranking affected a hospital's implementation and viewer reception of its videos on YouTube™?

Chi-square tests showed that the larger a hospital was, the more videos it uploaded to YouTube™ ($\chi = 40.9$, $df = 12$, $P < 0.05$), the more video views it attracted ($\chi = 23.1$, $df = 9$, $P < 0.05$), and the more subscribers it gained ($\chi = 31.6$, $df = 12$, $P < 0.05$).

Every year, USNews.com ranks US hospitals and introduces a list of Best Hospitals on the national and on the state levels. Chi-square tests also found that, though nationally ranked hospitals may not have uploaded more videos to YouTube™ than the rest of the hospitals ($\chi = 13.9$, $df = 8$, $P > 0.05$), significantly more viewers subscribed to the videos from the nationally ranked hospitals on YouTube™ ($\chi = 67.5$, $df = 8$, $P < 0.05$), and their videos attracted significantly more views ($\chi = 27.3$, $df = 6$, $P < 0.05$) than those unranked hospitals.

Although most hospitals tended to promote their YouTube™ videos on their website homepages, a chi-square test showed that significantly more smaller-sized hospitals tended not to promote such videos than larger hospitals did (chi-square = 14.689, $df = 6$, $P < 0.05$).

Discussion and conclusions

Huang's 2009 study found that 33% of the US hospitals used at least one video on their websites by the end of 2008. However, the current study found that, by October 2012, only 11% of US hospitals had taken advantage of YouTube™. This finding suggests that most hospitals, especially smaller hospitals, have not posted videos to YouTube™ systematically; they have not treated video as a routine marketing tool. In the technology world today, addressing search engine optimization (SEO) has become common sense. To maximize a hospital website's exposure to the public, connecting the website to its videos on YouTube™ and promoting YouTube™ videos on its website is a desirable strategy. Technically, a hospital can dually post its videos to its website and to YouTube™ simultaneously, or simply post its videos only to YouTube™ and then embed YouTube™ videos to its website to promote them to both maintain the integrity of branding and maximize SEO. First and foremost, however, a hospital should take advantage of YouTube™ video as a new medium to market itself and serve its online users. This point

is especially true for smaller hospitals, as the correlation findings from this study have suggested. Cindy Smith-Putnam, Executive Director of Business Development, Marketing & Community Relations at Eastern Idaho Regional Medical Center said:

Hospitals lacking robust marketing and communications budgets may be MORE likely, not less likely, to consider technology investments a major priority. This is because compared to traditional communication channels (paid advertising, print publications, direct mail, etc.), websites and social media are relatively less expensive ways to interact with prospective consumers, with the added benefit of facilitating more two-way (rather than one-way) communication (Quoted in ref.²³).

A diffusion of innovation likely becomes irreversible when a critical mass is reached at a 10–25% adoption rate, according to the diffusion of innovation theory;²⁴ 11% adoption rate is on the brink of reaching such a critical mass. Whether these 11% early adopters of YouTube™ videos will put pressure on other hospitals to do the same is yet to be seen in the years to come; however, findings from the comparisons of YouTube™ video performances by hospital size and ranking suggest that a trickle-down influence from larger hospitals upon smaller hospitals is happening and may continue. The findings suggest that smaller hospitals should better take advantage of YouTube™ videos and that, if they have such videos, they should better promote the videos.

The findings about video views demonstrate that hospital videos on YouTube™ have been very well received by users. The median, 23 281 views, is not a trivial number when videos from hospitals of all sizes are considered along with the fact that roughly 87% of all YouTube™ videos got fewer than 10 000 views (see statistics at <http://gorumors.com/crunchies/youtube-average-views/>). When the number of posted videos and the video views are compared by category, a large misalignment between hospital efforts and user interests is found. Users are enthusiastic about patient education videos, surgery process videos, and especially public service announcement videos; however, hospitals have posted mostly videos that try to sell themselves. The implication of this finding is that hospitals can continue to use videos to conduct marketing by advertising themselves and providing information about themselves on

YouTube™, but to attract traffic, hospitals should shift their foci to better serving their users by altruistically providing more videos that pertain to users' interests. Altruistic marketing has been widely and successfully practiced by many brand-name companies outside of the healthcare market, such as FedEx, Walgreens, Hyundai, and JetBlue.²⁵ The findings from this study demonstrate that altruistic marketing is very well received by hospital online users and should be highly promoted in hospitals' YouTube™ video channels.

This study has its limitations. Although video view information is readily available on YouTube™, viewer experiences of hospital videos can be investigated in another study. Thousands of comments on hospital videos on YouTube™ have provided a bonanza of information about users and also deserve investigation. Hospitals' motives and strategies of using YouTube™ videos require case studies.

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