

Sentiment analysis and social networking sites: a case study

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Abstract

Sentiments are the hormones of social networking sites. They trigger human emotions and emotions initiate social communication. All raw and polished communication that happen in social networking sites in form of chats, comments, scraps, tags, likes, photographs, etc are the result of an outpour of the bag of human sentiments. The objective of this research paper is to make an attempt to identify the various factors for identifying the role played by social networking sites on human emotions. Social media is such a development that modern technology would always boast of, yet it cannot be denied that this media primarily functions with sentiments. Sentiments are to social media what fuel is to fire. Whether it is youth or age, whether it is house or office, whether it is man or woman every section of the society has contributed to the working, development and sustenance of the social media. Society, in other words, has fallen prey to these social networking sites. And the fundamental cause behind such addiction is "the role sentiments play" in them. Too much of sentiments seasoned with a pinch of logic sometimes provide us with a real fun platform for our society. Perpetual exchange of emotions in social networking sites are the main reason responsible for making them our most emphatic guardian who is considered to be the most trustworthy companion. However, disastrous bargain with the human sentiments in social networking sites may prove to be harmful and hazardous. The paper intends to explore this intense association of sentiments with social networking sites with identification of various steps to create awareness and to be excessively involved with the virtual world that may lead to disastrous effects. This study will help various other research activities carried out in information and management field as well firms planning to adopt and implement the possible ways of removing ignorance and open up various scope of research on the topic of social networking sites.

Keywords: Sentiment Analysis; Social Networking Sites; Teens Emotion; Women; Communalism.

1. Introduction

Sentiment Analysis is a determiner of the attitude of the speaker or an author related to any topic or a quick view of its contextual divergence of the document or the intended emotional communication (i.e. the sentimental impact that the writer intends to create on the reader). Social media websites are popular places for building relationships and contacts where sentimental conversations take place. These networking sites are, therefore, becoming a place for criminals to indulge in various cyber crimes. India is one of the fore runner countries where the offences relating to social networking websites pertaining to sentiments have gained momentum off late, like users of Facebook are constantly under threat from hackers who don't shy away from posting distorted images with explicit pornographic contents being uploaded on online accounts without the knowledge of the actual users. With reference to this a Freakonomics Quorum, from the "Freakonomics" blog hosted by the New York Times remarks that Powerful new technologies provide great returns, though they are also responsible to bring in the change in our lifestyle, and not always in ways that everyone likes.

Social Psychologist of Massachusetts Institute of Technology Sherry Turkle talks about social networking as an eroding factor in our ability to live comfortably offline. And it's really very true with the youth of the globe that ranges from 15 to 30 years of people. While people in this age bracket largely consists of students at higher academic semesters and recent job-finders, it gets extremely tempting for them to create friends, create friends of opposite sex, see and feel things beyond their reach, share secrets, like peo-

ple and get more and more liked in return. Wants and needs of youth evolve and social networking sites have, readily, provided immense platform for their ever-evolving desires.

2. Impact of social networks on teen sentiments

The impact of social networking sites plays a very important role in bring a change in the youth life. Today's youth is more aware than the youth of the yesteryears'. It sees the pros and cons of the society here and the societies there. It learns and appreciates cultures out there. It meets people with various languages, foods, attires, ideas, opinions and experiences. Social networking sites have made this generation smarter. Although the social networking sites have taken the younger cohort ahead of times, yet there are pages of dark stories to be narrated. Social networking sites work as cooking ranges where sentiments are the basic food ingredients. The unremitting give and take of sentiment-packed messages makes the social networking sites the most sought after podium of outlet. Anything that touches the softer part of the brain is always appealing. Starting from people liking my profile to turning my fans to fancying my personality to loving my comments to sharing my photographs, every part of these has emotions attached to it. In fact a soft attraction is difficult to separate oneself from it.

Classmates.com, a networking site was launched in 1995 and social networking sites today are numerous to be named. Facebook and Twitter being the mostly used social networking sites there are MySpace, LinkedIn, and many more to be specified. In this world

which is too fast, comprising fast food, easy money, fast cars, and very fast relationships” increasing number of social networking sites have definitely fulfilled our youth’s need for fast communication. And thus a popular ad in Google named *Is Facebook Killing Us* states that it shouldn’t be surprising that when the opportunity is given, fast communication is created. and now the only problem with all of these is that short cuts causes the negative results and when we choose for them and utilise them in excess instead of controlling its usage. As discussed by Simonite, Tom. August 2012 Microsoft’s Workplace Social Network Becomes Emotionally Aware [http:// technology review .in](http://technologyreview.in). employees can get involved emotionally with someone and then if things doesn’t materialise, it leads to emotional crisis. If it is put in other words, just like using too much fast food could negatively affect one’s mind/body same is the case with Facebook. Scientists have warned that using social networking sites like Twitter and Facebook could hamper moral values, as they do not allow time for compassion or admiration.

There is an old proverb which goes “Excess of everything is bad”, excess of online life has created isolation among the youths of today. They relate more to a lifeless picture of beauty queens than to a live cattle grazing on the fields. Excessive plugging in has made the youth devoid of all responsibilities. Few decades ago, a young man of 20 years used to bear all social and moral responsibilities of his family, where as today a 20 year old with a smart-phone in his pocket behaves more as a child to be taken care of. The difference is serious. It is intense because it is responsibility that matures a person. Today’s youth goes haywire with net-books on their palms.

The results are widespread. According to USA’s Mail Online’s report by Jack Doyle as many as 12,300 cases are linked to the site. A crime is reported to police that’s linked to Facebook every forty minutes. Facebook was referred to in investigations of murder, rape, child sex offences, assault, kidnaps, and other crimes. The Mail Online also reports about the most talked Ashleigh Hall murder case that happened primarily because of Facebook. The case goes as such, according to the website Ashleigh Hall who was a teenager fell in love with one Peter Chapman via Facebook Ashleigh Hall was murdered by serial rapist Peter Chapman after he befriended her on Facebook. Chapman, 35, displayed himself as a handsome teenager with the name Peter Cartwright to draw in 17-year-old trainee nurse Ashleigh and trapping her. He texted her continuously and planned to meet her some weeks later, claiming to be father of Peter in-order to explain why he looked nothing like his photo. Chapman drove Ashleigh to a lonely place in Thorpe Larches, which was nearer to Sedgfield in County Durham. Once there, he forced her to have sex with him and then hebanded and gagged her with duct tape, wrapping so much around her head that she was suffocated which resulted in her death. He then threw her body in a ditch and disappeared. Chapman is now serving sentenced 35 years in jail after being sentenced in 2010 for Ashleigh’s kidnap, rape and murder.”

Examples of crime could be of various ranges. It could be from parents calling police after a paedophile inducing their 13-year-old son to send indecent pictures of himself in Greater Manchester to a jilted boyfriend posting a naked picture of his former girlfriend, who was 17, on the site, there are several serious crimes happening on the social media with regard to the youths that has to be taken into concern.

That youth are connected to these global online communities is both a frightening prospect for guardians and tutors and an intriguing area for social science research. For example, educators and parents in America face difficult dilemma relating students and Social Networking sites. Many scholars suggest that students learn in new ways using social media and that felicitator should teach them the new approach to these new areas. Nevertheless, many academic institutions block access to Social Networking sites like Facebook while parents are very worried regarding the safety of their children and effects of Social Networking sites which can really hamper on their children’s social and academic development. Teenage youth are a unique population of Social Network-

ing Sites users and they are among the initial users who have grown up with entirely communication technologies. At the same time they also live in a period of fast development and maturity. Research about social media effects on youth assures in contributing significantly to the needs of adults who intervene access to these online communities.

Social Networking Sites work as medium of venting out pent up emotions. The very recent case of a Mahim youth named Mani Tirupati, who was arrested for having hurt religious sentiments by posting inappropriate picture of a deity in social networking sites, as reported by The Indian Express, clearly shows how social networking sites are led by sentiments. This youth had failed in class X examinations four times consecutively and was, therefore, angry with the deity for not listening to his prayers. Hence, he posted inapt pictures of the deity as an act of revenge in the social networking sites. The picture went viral all of a sudden and police tracked him down through the IP address and arrested him from his Mahim home. He was arrested under Section 295 (A) (deliberate and malicious acts, intended to outrage or hurt sentiments of any religion or class or insulting any religion or religious beliefs according to Section 66 (A) of the Information Technology Act.

In the article *Is Facebook making us lonely*, (May 2012.) Marche, Stephen has talked about this issue of loneliness. Its widely known that youth sentiments has a position in social networking sites, yet this place is not safe for them. Had there been limited use of the social networking sites the teenager would have communicated his repressed emotions either with his parents, siblings or close relatives. In that case people would have talked to him and counselled him. While his suppressed anger found a very wrong outlet, many people had to undergo the pangs of suffering.

Sentiments are closely related to our hearts. Our head hardly plays any role in building them. Hence, all sentimental comments and conversations happening in social networking sites are barely rational. Teens, being less mature, become victims of this silent slaughterer named- Sentiments. They become sentimental, then emotional, then aggressive and eventually violent. However positive outcomes can also be generated due to these technologies such as political activities organised via Facebook or jobs found through LinkedIn, it surely creates an unhealthy attachment for the teens through the invisible wires of sentiments. It, many times, ends up with headlines like “reported suicide linked to malicious gossip”.

3. Review of literature

Matt Fernandes in his paper has analysed how sentiment analysis can be explored from fairytales which classify relationships through social network whether it is positive or negative and further identify the protagonist and antagonist after making a comprehensive study of these fairy tales. Federico Alberto in his book *Sentiment Analysis in Social Network* (2016) has talked about features of Sentiment Analysis. He has said that Sentiment Analysis is an interdisciplinary approach which crops up from different computing domains which provide perception into opinion spamming, reasoning, and social network mining. This portrays the different ways of applications of opinion mining and domain, and the process to get the best results in order to understand the consequences. Sentiment Analysis can be an important tool to make analysis of the state-of-the-art in the world of social media.

4. Effect of social networks on women

The menace of sentiments has not only disturbed the life of the youth but it has also brought similar effects in the life of women. Woman as the embodiment of chastity and devotion is happily appreciated by the Indian patriarchal system. She is highly appreciated if she is an ideal home maker, a dutiful wife, a caring mother and a loving daughter. However, in this internet era, women have developed and moved ahead with time. These women are called smart women who have the courage to say NO to injustice done to

them. There are another category of women who are termed as "Bad" in our Indian society. They are 'bad' because apart from fighting against injustice done to them, they know how to achieve their goals and exercise their freedom. They love their lives, lead a different lifestyle and satisfy their demands. She may be a prostitute, who does not hesitate to work to feed her children and face the struggles; she may stand up and fight for other woman's rights as a journalist or may raise voice against female infanticide as a doctor. These women are examples and find unique places in social networking sites. They are made super hero overnight by many posts, scraps on the sites like Twitter, Facebook, Orkut. This is not the only thing the networking sites do. It, undeniably, has a darker side too, like it may trigger violence in a woman's life. For example when she is engaged in online interactions, she gets more and more involved there as a result of which she remains aloof from the outside world which is more true and real. Sometimes it may so happen that too much of personal and emotional involvement with someone online, and may lead her to be cheated as a result of numerous fraud cases.

Women are caught in the mesh of cyber life in severe ways. Recently one such ghastly incident which give many viewers gooseflesh who casually logged in to Yahoo. India. The site of the public execution of an Afghan woman has caught worldwide attention. Imagine the psychological situation of anyone who suddenly accesses this site with the title "Afghan Woman executed in Public" (yahoo.co.in). In this ultra modern age when women love to read articles related to fashion, cookery, film weddings, this particular news in Yahoo India could potentially destroy night's sleep. The scene of a man targeting his gun towards the head of a woman with her back to the camera in very plain clothing seems waiting patiently for her death. What's her crime? Well, this woman was barely 22 years old and was married to an Afghan leader but was found guilty of loving another man. If such scenes of public execution are being made so common then it is really horrifying which can make any woman viewer paralyzed to such extent that they would be bound to think twice before doing anything by listening to their hearts and it would make them feel so let down. This site has uploaded a series of pictures in a slide show where a huge crowd is sitting to witness such an inhuman act that is committed in public. After being charged with adultery, she is punished with death. What about the man who was equally a party to this crime? There is definitely no answer to this question. In the site, a man is shown coming near her and firing shots at her. Then she drops down dead. Such is the male chauvinism which can witness the execution of a woman without any remorse or guilt. It is indeed a fact that if such a horrifying incident is mentioned in the news without any pictures, it generally lasts a day or two in our mind and to think about witnessing this scene with still pictures being shown on social networking sites, and being forwarded innumerable number of times, can definitely hurt the sentiments of people in general and women in particular.

A case was registered recently from three cabinet ministers in Karnataka State about an incident which took place during an assembly session while an important discussion was going on and one of the ministers was allegedly viewing a clipping of an uploaded material on a social networking site containing erotic content involving sex, abuse of women and violence in his mobile phone which was passed on to the other two ministers sitting near him. It is very much an understood fact that a man cannot be able to resist watching such porn stuffs but it should be really considered objectionable when such sex related sites are being watched during an assembly session. Audio visual clippings of nude and semi nude women uploaded in different networking sites writhing with pain are considered to be the source for deriving pleasure to the millions of users who consider this as the best entertaining material and make themselves busy by downloading them in their laptops or cell-phones and viewing them whenever they want to.

Everyone knows that many users accessing social networking sites for interaction, increasing business rapport or discussing some important academic matters are just a handful. Many come to satisfy their burning sexual urge through these sites. When men

chat with a woman in these sites, the first thing they do is generally pass a light compliment to the girl by saying she is attractive and then trying to be personal with arousing talks that can make a woman feel special. If the woman gets angry, she ends the session as it insults her, while many times it continues and most of the times it ends up dangerously. It has become a very common phenomenon for men trying to go in for chatting sessions with unknown women randomly and deriving sexual pleasure out of it.

Social networking sites have made women densely networked. However researchers prove that these networking sites have made them lonelier. This loneliness makes them emotionally and physically sick. Yvette Vikers, who was a former B- movie celebrity, and acted in movies like *Attack of the 50 Foot Woman* (1958), was found dead by a neighbour when she reached her room via a broken window and pushed her way through a pile of junk mail. Her body was found near a heater that was still burning. Her computer was switched on too. Her death was a subject of 16,057 Facebook posts and 881 tweets. With no children, no religious group, and no immediate social circle of any kind, she had no place to go for companionship as she was caught in the vicious circle of cyber life and with a series of unnatural heartbeats. It is surely a sad story, but true by all means.

5. Analysis of communal sentiments with relation to social networking sites

There are various other domains of our day to day living that are mercilessly affected because of social networking sites. One such area is the communalism. Racism is the major cause of today's social trauma. It is this diseased root that produces rotten fruits like communal disparities, cultural conflicts and national disputes. Innocent people turn victims of violence, intimidation and communal riots. Terrorism, with all its potential siblings takes birth.

Social Networking sites, can be considered as the motivating force of sentiments, play a serious role in this global issue. With people getting addicted to social media, sentimental comments targeting races and communities flood the walls and spaces of the websites. Starting from meagre happenings to grave concerns, social networking sites carry emotional and prejudiced comments all the time. Such comments "imperil communal psyches and set off a cascade of bad consequences". Examples galore, the most recent case of how Facebook was used to fuel anti northeast sentiments left created shock waves among most of the viewers. According to Tech Tree Blog, pictures depicting the killing of Muslims in Burma started popping up on Facebook. These images then spread like wildfire on social networking sites, and have been directly blamed for inciting the recent riots in Mumbai and mass exodus of eastern origin people from other cities in India. The situation became so intense that the govt. recently posed a ban on over 250 sites found to be directly responsible for starting the rumours,

This is not the only case where social networking sites are responsible for generating communal violence. Thousands of instances crop up every day. One such issue was that of a recent uproar which shocked the entire nation where a networking site was charged with containing obscene pictures and derogatory articles pertaining to Prophet Mohammed, Jesus Christ, and various other Hindu gods and goddesses. The contents were highly objectionable to the sentiments pertaining to religion and faiths and seen to be intended to outrage the feelings of religious people whether Hindu, Muslim or Christian. Kapil Sibal, Minister of Communication and IT, told the reporters at a press conference on December 6, 2011 that he won't allow Indian and religious sentiments of large sections of the society to be hurt in repercussion to the porn photo shopped with Mecca and Hindu deities. Kamath, Nandan, in his book, Law relating to Computers, Internet and e-commerce has discussed about various laws that can help women to protect themselves for being a victim to cybercrimes.

The connection of sentiments with social networking sites is deep-rooted. Expressing sentimental comments in social sites, many times, blur our judging capacities. Remarks are given sometimes

at the positive pole and sometimes at the negative. We rarely find opinions that are neutral and are free from sentimental polarities. This happens because most of the social networking sites are freely accessible as advertisers support them to make money and gain popularity by advertising their products in them. Any user with an internet connection can easily enter these sites. Unless the user seeks privacy options, entire information posted by him/ her is publicly visible. Anything public is always vulnerable which may lead to drastic consequences.

The dangers of using these social networking sites are many like the following:

Luring/ enticement: Internet sexual predators and known sex offenders generally use social networking sites to track and lure victims.

Identity Theft: Criminals rob the identities of those profiles posting personal information.

Cyber bullying Harassment: Agitators post derogatory, hurtful or frightening information about others making them villains overnight.

Stalking: Stalkers try to access personal information posted in networking sites to track victims

Fake Schemes: Criminals with the intention to malign others by extracting money grab property can track victims, be trustworthy and then exploit that trust for criminal purposes.

Explicit Sexual Content: Sometimes users who are not connected yet post sexually explicit information because they can be friends of friends or members of any public group we care connected with that is unsuitable for those internet users who are very immature.

Remedy:

We can avoid ourselves landing into trouble if we are cautious enough to sensitize all that is happening around us. For this, we must keep in mind the following points:

- Understanding that all items posted can be viewed by anyone known or unknown people
- Posting personal images should be avoided
- Personal information like full name, date of birth, hometown office address, school name or grade should never be posted
- Personal information regarding friends to your site or to their site should not be displayed.
- Social Networking sites have set an age limit for creating account. It should be ensured by parents that their children meet these requirements before allowing them access into these sites.

6. Conclusion

Apart from adopting those everyday measures, people can also take resort to many latest technologies that can successfully handle sentiment related security issues. For example Microsoft's very recent software "Yammer" can perform emotion detection and recognition. When the element is switched on for the aforesaid company's network, it offers their team leaders a view of the emotions of their employees which is trending, by the use of a line graph which shows the level of all emotions like excitement, confusion, or any other feelings over the time. The headings or even those words that are most often connected with those feelings are also displayed. The software has the capability to identify 80 different emotions, though it squeezes those into 15 for display and shows only the most common ones for reducing the complicatedness of the interface. Ignorance is not always bliss. With a pinch more awareness and a bit more responsibility, sentiment related disasters happening in the cyber world can be successfully avoided. It all depends upon how long our society takes to grow up.

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