Preface

Staying in touch with friends, family members and professionals from any part of the world has become possible under the different social networking sites through internet. The sites such as Facebook, Twitter, LinkedIn and numerous similar sites are facilitating people to form groups. These groups express and exchange their views, tastes, preferences and experiences among themselves. Online communication of the above groups is termed as social media. Now business enterprises make use of social media channels for their business activities. Social Media has also started gaining importance in business enterprises. This channel is mainly being used in the functional areas such as marketing and public relations by some business enterprises. This approach is known as social media marketing. The concept of social media marketing basically refers to the process of promoting business in websites through social media channels. This is an extremely useful tool for information, products description, promotion of products or services and all integrated in the chain of networking world. Many organizations have started adopting this method. It is mainly considered for a low cost promotional method.

A social media program is required to be designed before enterprises decide to make use of social media for their business. Implementation of process of social media program in an enterprise has four stages. The first stage is to understand the potential of various social media tools. The second stage is to identify business activities which need social media. The third stage is to choose and map various social media tools with the business activities and also with the relevant content strategies. Finally, an enterprise needs to measure social media effectiveness through predefined measurement metrics.

One of the most challenging tasks for social media strategist is convincing the management of the business enterprises on their return of investment from social media programs. Most of the activities of social media have no direct financial impact on website visitors, impressions, customer complaints, positive responses, re tweets, YouTube views, Face Book friends, Social mention, Blog comments, visitors to brick and mortar stores, delivered e-mails and other related activities. It is necessary to identify these activities for the business benefits. Business benefits will become baseline metrics before the launch of social media program. This process will also provide a proof that the concept of social media is working.

Data and information generated from the customers and prospective customers of an enterprise through their social media channels are available in the form of structured, semi structured and unstructured. Every business needs data and information from its social media sites for analysis and developing business models. The required data and information are already available in the social media channels created by the business enterprises. Many business enterprises are yet to make use of this source for their business purposes. There is a good scope for developing business models using the concepts of collaborative technology with the inputs form social media channels. Adapting to new methods is needed not only to survive but also thrive in the new business environment.

Information technology provides access to vast amount of structured, semi structured and unstructured data in Big Data. The users in enterprises need to master integrating that information and those technology capabilities to create relevant context. Cloud environment is preferred for processing because of the nature of data being big. The above two concepts are more useful for data in social media. The reason is because of volume, velocity and variety. Emerging concepts such as social media intelligence, social media analytics and social media metrics can be applied in making use of the information in Big Data for business strategy and decisions.

In the present business scenario success is no longer guaranteed for enterprises that have financial resources and size on their side. Smaller enterprises that are flexible can provide products or services at a faster pace and lower cost. Social media are facilitating them to achieve this. As boundaries are shrinking the level of competition is going up. Enterprises need to plan their business in both domestic and international markets. The better strategy will be integrating business with the knowledge of domain experts and making use of software and management tools. This will help them to gain competitive advantage in the present global market scenario. Social media facilitate to achieve the above strategy.

Social media is also useful for social cause. When disaster strikes, communication is often interrupted. In order to get assistance and aid for the affected area, an open on line of communication is critical in a crisis. Social media is being utilized more frequently for the relief effort. Friends and loved ones of victims who frantically search for information are now using wireless technology and social networking such as twitter, face book, flicker and you tube for information and assistance. It is interesting to note forester analyst Jererniah Owyang has used his blog to bring attention to the situation in China during the devastating earthquake occurred in that country. Jereniah used his blog as a platform to inspire people to donate money to the Red Cross.

FOCUS OF THE BOOK

Many new concepts have been emerging in information and communication technology discipline. Close analysis of these concepts indicate many of these concepts are the extension of the existing concepts. Every new concept has an advantage over the previous concept. Sometimes two or more concepts or technologies are combined to evolve a new concept. Social media is one among them. Further social media is changing business landscape across the borders of countries. This book mainly talks about transformation and managing business, making use of the concepts such as Big Data, Knowledge Management, and metrics under the social media environment. This book gives an idea of developing conceptual business models with the data from social media sites. This book stresses the importance of making use of software tools in the social media sites for the purpose of analysis and research.

BENEFITS FROM SOCIAL MEDIA

Social media tools empower all the stake holders of business enterprise to integrate most of the functional areas in the business enterprises for business processes and decisions. Mainly research, marketing, sales customer services and product development functions in organizations can be included within the social media programs. There is a scope for carrying out research activities for developing business models for manufacturing, education, and government sectors under social media programs.

TARGET AUDIENCE

This book offers comprehensive view of social media for business applications. This book would be useful as reference for research scholars, research and development departments in the corporate and education sectors. It is also a course supplement to the students pursuing business management and information technology related subjects. This is also a good resource for software professionals who are involved in developing business application models under social media environment. This will be useful for the corporate executives who want to update themselves in emerging trends in business.

GIST OF CHAPTERS

This book is broadly divided under five sections covering, Business in social media environment. Big data and Knowledge management concepts in social media, Social Media Metrics, Conceptual Business Models under social media environment, and Software tools for analysis and research in social media sites.

The contributors of this book are from academics and professionals who are involved in research related to the concept of social media and developing business models using this concept.

In introduction the editor observes that information and communication technology is the major stimulus for change in the various sectors in the business. Rapid advances in the internet have made the concept of social media popular. This concept is also gaining importance in business. Social media are nothing more than special class of web sites. These websites are considered as second generation web sites. The first generation websites are those created by organizations or an authority. Second generation websites such as social media websites by contrast are platforms that provide users for making use of tools to create their own mini websites or web pages. Social media sites have three distinctive characteristics. The first characteristic talks about the content being generated by the users themselves. The second characteristic allows integrating easily with other sites. The third characteristic is related to high degree of participation and interaction among users.

The editor indicates the role of social media in business functions and the importance of implementation of social media programs in business organizations. Further the editor talks about the various aspects in social media from the business perspective.

R. Venkatesh and Sudarsan Jayasing in their chapter "Transformation of Business through Social Media" talk about the dynamics of business are changing. Social media marketing is the result of changes taking place in traditional marketing. The authors feel that social media marketing is becoming very important due to the changes of the behavior of customers. Customers are adapting to new technologies and getting familiar with world business environment. The authors indicate the need for change of approach in customer relationship management by organizations in the present social media environment. Further they stress handling of risks and monitoring of business activities in the new business scenario. This indicates the importance of strong relationship with customers through engagement on social media platforms. They also explain HR practices, recruitment approach and knowledge management in social media environment for business purposes.

Kijpokin Kasemsap in his chapter "Mastering Social Media in the Modern Business World" explains the theoretical and practical overview of social media. While talking about the communication management, he observes that social media facilitates to build and maintain positive responses with the stake holders of the organizations. Social media has become an essential tool in the tourism sector for

accessing various sources for tourist information. Healthcare professionals are able to share case studies and professional knowledge through Social Media sites. The author feels that social media facilitate to innovate on the basis of user generated ideas. Social media give ideas for the adoption of new business practices for the benefit of good governance.

Neus Soler Labajus and Ana Isabel Jimenez-Zarco in the chapter "Productivity on Social Media Web: Use of Social Media Expectations Response" talk about the parameters for calculation of return of investment in social media. The authors explain the various variables are to be considered from the angle of impact of relationship in social media sites. They mention about return on engagement in social media. They emphasize the importance of key performance indicators for implementation of social media plan in organizations. Further they relate the objectives in social media with key performance indicators with initiatives. They also make a mention about prediction markets in social media environment.

S. Matilda in her chapter "Big Data in Social Media Environment: A Business Perspective" observes that the concept of Big Data is more useful for the data in social media sites. The author talks about the significance of Big Data in the social media environment for the sectors such as banking and finance, healthcare, manufacturing, retail marketing, government, education and research. The author feels that big data is less about the data itself and more about one does with the data. While discussing about the types of big data analytics, the author explains the importance of predictive analytics and prescriptive analytics. The author makes a mention of dynamics and limitations of Big Data in social media. Further the author talks about the future prospects of Big Data in social media.

Srinivasan Vaidyanathan observes in his chapter "Social Media in Knowledge Management" that the integration of social media tools into knowledge management programs in corporate is gaining importance. Adoption of social media by business enterprises has been steadily increasing with its applications extending to various corporate functions besides marketing and customer management. This approach may be considered as a corporate strategy. He feels that social media can be helpful for tacit knowledge sharing through interaction and collaborative technology in business organizations. He discusses about the implementation approaches, opportunities and challenges of social media in the global business management scenario.

Tasleem Arif and Rashid Ali in their chapter "Social Media Metrics in an Academic Setup" say that the computational power of computers and their ability to store large amounts of data has provided the much needed impetus to the analysis and understanding of large scale complex social networks. While explaining the social networks, they say a network in simple terms is an organized collection of nodes or actors and their inter connections or relationships. Networks can be as simple as blood relations between two individuals or as complex as the World Wide Web. The relationships between actors have some sort of social bearing. They are called as social networks. They discuss about the levels and metrics of social network analysis. Further they have explained a new metric called "Average Degree of Collaboration" for quantifying collaborations within academic institutions.

Sudarsanam S. K. in his chapter "Social Media Metrics" explains the difference between traditional media and social media. The author gives an overview of AMEC social media frame work. He explains AMEC social media metrics model. He also gives an idea of AMEC channel metrics frame work. He discusses the guide lines for defining the key performance indicators. He says that social media metrics and bench marking of metrics should be based on the key objectives of organizations. He gives a list of various social media analytical tools for analyzing data in the social media sites. He feels that leveraging the power of social media will help business organizations to be competitive in the present business scenario.

N. Ragavendra Rao in his chapter "Social Media: An Enabler for Governance" talks about a conceptual business model for governance. This model mainly concentrates the need for interaction with citizens in a country through social media channels by governments. He suggests that a government should create an exclusive social media channel for citizen's articulation of their interests and explanations. He feels that it would be better that the government indicates their tentative plans and policies pertaining to such as deforestation of forests preserving wild animals, use of pesticides, disposal of waste materials and other related issues on the social media channels created exclusively for their citizens. Then only it will be possible for the citizens to take the part in the discussion and express their views on the proposed polices of the government. Their views will facilitate to frame proper policies by a government. The author mentions the discussion of professionals in their social media channels with regard to the rain and floods in Chennai (India). These discussions provide their professional views of the disaster management. The author narrates that several help groups in Chennai used the online media, as it was the only virtual communication room to get in touch with emergency numbers of ambulance during the disaster. The constant stream of whats app forwards and other social media channels extended help to the people stuck in the flood affected areas.

N. Ragavendra Rao in his chapter "Social Media: An Enabler in Developing Business Models for Enterprises" observes the existing ways of doing business are constantly changing. Opportunities in the in the present global markets are to be exploited at a rapid pace. Every business enterprise has unique challenges to face in its sector. It is high time business enterprises take advantages of making use of social media for their business. He feels that data from social media facilitates enterprises in developing conceptual business models for their products and services. Conceptual business models are nothing but identifying the relevant concepts in information and communication technology making use of them with the data from social media in developing business models appropriate to their business activities. He discusses three case illustrations in the sectors such as automobiles, textiles and management consultancy firms. Data and information generated in their social media channels from the interactions with their customers and prospective customers facilitate them to develop business models for their organizations. The author indicates social media channels can create an efficient frame work to leverage in business. Further he observes that technology does not drive change and it only enables change in enterprises.

Shalin Hai-Jew in the chapter "Employing the Sentiment Analysis Tool in NVivo11 Plus on Social Media Data: Eight Initial Case Types" says that sentiment analysis can be used to assess people's feelings, attitudes and beliefs ranging from positive to negative on a variety of phenomena from the data in social media. The author explains that several new auto coding features in NVivo11 plus tool facilitate to carry out sentiment analysis and extraction of themes from the text data sets. The author talks about the research approach in using NVivo11 tool for sentiment analysis with the social media data. The author explains about eight scenarios in which these tools have been applied to social media data.

The sentiment analysis tool enables asking questions about various types of social media data. The author explains from the eight types of targeted social media. They are (1) profiling the personalities of egos entities through related social media account, (2) describing the personalities of groups with interacting members (in ego neighborhoods, ad hoc networks, editing groups, and others) through network analysis and then sentiment analysis, (3) exploring meta data (folksonomic related tag networks and article networks) to surface latent public conceptualizations, (4) examining trending public issues through socially shared data and discourse sets, (5) delving into public concepts through socially shared data and discourse sets, (6) observing public events through socially shared data and discourse sets, (7) analyzing broad scale brand reputation through socially shared data and discourse sets, and (8) inspecting

various individual texts and text corpuses for emergent insights. The author clearly explains the outcome of the above types of targeted social media by using the tool NVivo11 Plus for the sentimental analysis.

Shalin Hai-Jew in the chapter "Capturing the Gist(s) of Image Sets Associated with Chinese Cities through Related Tags Networks on Flickr[(R)]" talks about the related tags networks can be extracted from Flickr[(R)] and used for 'GIST' and other analysis's. The software tools used in data extractions and creation of various graphs visualization are Open Source Network Over View, Discovery and Exploration for Excel (NodeXL). These are available on Microsoft's Code Plex platform. The author introduced related tags networks and focused on a select list of cities in modern China as seeding terms. These networks have been extracted from Flickr[(R)] at I degree, 1.5 degree and 2 degrees, using NodeXL. This research work explores a case of the use metadata for information value, based on a limited use case. The author feels the research value of exploring related networks is only just beginning. It needs to be explored by further research. The author feels not much research is done in this area. The author's research work will be the base for further research in this area.

Shalin Hai-Jew in the chapter "Real Time Sentiment Analysis of Micro Blog Messages with the Maltego 'Tweet Analyzer' Machine" says twitter is one of the foremost micro blogging sites. The author also indicates twitter has been a favorite with the data mining researchers and general public. Twitter has enabled to have access of historical data, real time data and dynamic data with its application programming inter faces in the micro blogging sites. The author observes that Maltego is an open access tool with a community version. There is a proprietary commercial version available by subscription. This tool is more useful in micro blogging sites environment. The author talks about engaging public opinion of events and socio cultural phenomena through dynamic tweet extractions and sentiment analysis. Further the author explains Maltego tweet analyzer facilitates the process of extraction and analysis. The author has done an extensive research on the data in micro blogging sites by using the above tool. The author observes the tool Maltego Chlorine Tweet Analyzer provides some pretty capabilities.

Shalin Hai-Jew in the chapter "Exploring Public Perceptions of Native Born American Emigration Abroad and Renunciation of American Citizenship through Social Media" talks about the issues of American emigration and the renunciation of US citizenship. The author used the software tools such as Network Overview, Discovery and Exploration for Excel (NodeXL), NVivo and Maltego Carbon on the social media sites for understanding the public mindsets about this social phenomenon. The social media platforms selected for using the above tools are Wikipedia, YouTube, Twitter, and Flickr.

The author explores the relatively uncommon phenomena of American expatriation and the rare extreme cases of citizenship renunciation. The author has considered the sampling from an open and crowd sourced encyclopedia. The sources for sampling are from massive collection of videos on video content sharing sites, micro blogging sites and digital images and video sharing sites. The types of data extractions are article networks on Wikipedia, video networks on you tube, #hash tagged conversations on twitter. The author observes that the application of a range of techniques that could be applied to social media data for exploring something of the public mind (the broad conscious, subconscious, and unconscious mind) on a topic based on collective electronic spaces. The author feels these approaches are quite rudimentary. Further the author indicates that the potential for research in this area is enormous.

Shalin Hai-Jew in the chapter "Finding Automated (Bot, Sensor) or Semi-Automated (Cyborg) Social Media Accounts Using Network Analysis and NodeXL" observes that on a number of social media platforms today, there are accounts that are masks for algorithmic actors. They are robots and sensors, as well as cyborgs. Cyborgs represent human assisted robots or robot assisted humans. The author considers three hypotheses for the research. First hypothesis is in respect of purely automated social media

accounts that will have a lot of less diversity and heterophily in their networks than non-automated (human) networks. The second hypothesis is the degree of the nodes in automated social media account's network that has one dominant account and a lot of other follower accounts. The third hypothesis is cyborg in social media platforms are popularly referred to as bot assisted humans or humans assisted bots. The author explains the results of the research in respect of the three hypotheses mentioned above.

IMPACT OF THIS BOOK

Social Media is growing at rapid pace. Now it has become a necessity for enterprises need to incorporate the concept of social media in their functional areas of their business. This book mainly focuses on the various aspects social media for business applications. Further this book highlights the importance of data in social media sites for business and research work.

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