

Cloud: Motivation to Use Knowledge Management in Social Media

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Abstract – Today, the social media networks are dominantly helping our daily social community needs. Abundance of information and knowledge storage, organization and sharing in such proliferating networks has driven the involvement of advanced technologies such as cloud computing. Cloud environments are gaining likeability in all strata of network applications including social media since they provide cost effective and time efficient means for developing these applications and knowledge accumulation and dissemination. In this paper, we discuss the benefits of using cloud computing concept in knowledge management for social media.

Keywords – cloud, Knowledge management, social media, information technology

NOMENCLATURE

KM- Knowledge Management
KMS- Knowledge Management System
SME- Small Medium scale Enterprises
IT- Information Technology
SPI- SaaS, PaaS, IaaS
SaaS- Software as a Service
PaaS- Platform as a Service
IaaS- Infrastructure as a Service
CC- Cloud Computing

I. INTRODUCTION

Cloud computing is an amalgamation of three components: "Application", "Storage" and "Connectivity." Cloud computing is a phrase for anything that entangles provision of a set of services over the Internet. Each part serves a different thing: Application Cloud/SaaS enables a thin client to communicate with services that are completely hosted on an external infrastructure, Storage Cloud/PaaS give way for a substitute to local file systems, and Processing Cloud/IaaS lead to scalable and reasonable computing resources that execute enterprise software. These three service components form the SPI model [1,2].

Today most businesses use CC in some or the other form. And this has proved lucrative to them, depending on the magnitude and level of acceptance and implementation of CC. For instance, banking and insurance sector is using cloud more in business support activities rather than in strategic tasks, thus the utilization of CC is limited; whereas, Media sector is more prolific in using cloud for

garnering monetary benefits. On the other hand, Retail sector is utilizing it for e-commerce activities, for eg web portals such as snapdeal.com.

In today's times of globalization and knowledge base economy, knowledge is what operates the economy. Knowledge sharing has come forth within the spectrum of IT, information management and recently CC.

CC model makes use of KM in two facets:

- Making it open to the new technological progresses, and
- Offering an opportunity to benefit from knowledge sharing in dispersed and varying circumstances

II. KNOWLEDGE MANAGEMENT

KM is the practice of working with the information of an organization including gathering, assessing, sharing and analysing it. Information is a vital resource of every company and is encompassed in many forms such as computer databases, reports, documentation, policies, experience and wisdom of the human capital. Knowledge is usually classified into tacit knowledge and explicit knowledge. More specifically and cleanly, it is categorized as explicit, implicit, and tacit. Explicit knowledge implies all the information that is available in physical form. Intangible form of data leads to implicit knowledge and such information can be transformed into explicit information. Tacit information can't be depicted into explicit form. KM projects vary based on applications, purpose, and scale. Social media sites or databases containing millions of records are dealt as different KM implementations.

III. CLOUD COMPUTING

In order to make available varied extent of services, cloud technology delegates management and control of data and other resources among users and cloud systems. Through the Internet, these resources are pooled, employed and consumed. In order to let the data be stored and managed by someone else somewhere else instead of doing so by self, the users use a cloud computing service. Similarly, applications don't need to be setup individually on each

user’s machine. They can be run as required using a service via the Internet. However, there can be many security concerns of cloud service users.

The distinctiveness of cloud computing lies in collection of resources, demand based service provision, service scalability, and pay-as-we-use facility. Demand based service provision lets the organizations take care of their resource requirements. There is a pool of resources available which can be extended or scaled down. Cloud services including provision of infrastructure, platform, or software services are measurable services usable in lieu of a fee. Cloud technology has gained momentum in all sectors including social media sites due to reduced access time and highly cost effective resource management. The cloud service providers (CSPs) give ample cost benefits to customer organizations such as availability of infrastructure, software licenses and platforms so that these firms don’t need to purchase these. Moreover, as soon as organizations build strategies for their new expansions or setups or wish to upgrade their systems, they get handy customizable and extensible infrastructure at their disposal. Sometimes, a small investment in a cloud service yields huge returns to firms and especially SMEs gain advantage at par with big organizations. This is because CSPs provide highly specialised and advanced services at one place which SMEs can’t render themselves.

IV. MOTIVATION TO USE KNOWLEDGE MANAGEMENT IN SOCIAL MEDIA

People from all generations and socioeconomic strata today are equipped with smart phones and computer network services through which they subscribe to social networking sites to remain in touch with each other and share their thoughts, expressions and day today events in various forms of audio video and textual information. Not only posing as socialising media, these sites have become a marketing platform for almost all commercial corporations. They can get first hand feedback and opinions from their prospective as well as existing customer base. They can additionally create discussion forums and helpline groups to assist the consumers on issues related to the product or service. The corporations have data analysis tools to extract useful patterns using the information collected through these sites. The thoughts shared by some not only drive innovations in the products or services, but also attract others to try out these products and services. All commercial organizations these days having dedicated teams for knowledge management perceive social networks as huge repositories of data to furnish these systems. They are aimed at achieving their

organizational goals by mining out driving factors to raise their revenues.

Social networks also work as a platform for promoting careers by individuals and finding suitable human capital. Intra organizational social sites also are useful for knowledge exchange, helping each other, and motivating the team members in accomplishing organization level goals. It is easier to have informal one to one discussions or group discussions via these platforms to complete daily tasks much more easily, efficiently and in less time when intra organizational private social network groups share their expertise and experiences in tackling such tasks for the progress of the intellectual capital of the organization. Knowledge management is done by organizations with the help of data excesses available online through the social media used by people for interaction.

V. CLOUD ORIENTED KNOWLEDGE MANAGEMENT AND SOCIAL MEDIA

There are several advantages of using a cloud based knowledge management system. Virtual machines are set up for ease in access of all resources including information from anywhere at any time and in any form as needed. Subscribers of the service can attain this access into the cloud via any networked device such as a laptop or a smart phone. Knowledge mining companies using cloud services gain a lot through information available on social sites [5]. All the data are replicated in many data stores so that there is no risk involved in access availability if one server fails. Knowledge is stored in various social networking sites such as blogging sites, wiki sites, micro bloggers, podcasts, and so on which are accessible easily through clouds. As of 1st jan 2015, credit <http://www.ebizmba.com/articles/social-networking-websites>, Facebook currently involves 1.23 billion active monthly users, twitter has 232 million, and LinkedIn has 255 million visitors. Cloud oriented KM involves dealing with innumerable users’ profile data, their ways to personalise the shared content, and searching patterns.

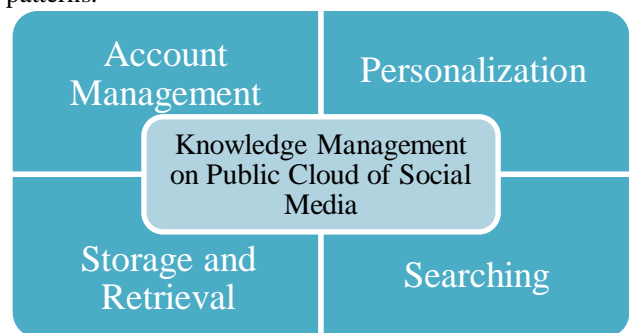


Fig. 1: KM using cloud for social media

KM leads to better corporate practices. It allows understanding and inculcation of expertise as well as improved strategies in organizations. Identification of human perceptions to derive useful inputs for improvement in organizational practices is a significant goal achieved through KM. CC has many servers and virtual environments that provide demand based services for infrastructure, software as well as information. KM on cloud services helps fast accessibility and quick sharing of all the extracted knowledge. In order to get quick agreements on all deliverables or decisions, CC platforms come handy since they are accessible round the clock without fail from any corner of the globe.

The social networking sites have grown from small private interaction spots to every human's social needs. They are now deployed as tools by all organizations to gain their objectives and benefit from the scattered knowledge available everywhere. Besides a new paradigm in social KM is evolving that is already informally used by SMEs. Contextual usage of the abundant data available on such sites is the main concern of all so that these firms can meet their goals such as innovation, scalability and transparency.

VI. CONCLUSION AND FUTURE SCOPE

The main driving factor of current and future businesses is the fast paced generation, maintenance and usage of knowledge through society's insights. Organizations must intelligently make use of such vast and dispersed information warehouses available on social networking sites and take advantage of speedy and robust cloud environments to achieve their organization level as well as short term operational goals.

Cloud computing involves many concerns that need to be handled with respect to technology and social text mining. However the benefits that cloud computing in terms of cost and speed make it a highly practicable solution for KM in organizations.

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