

Software as a service: Analysis of 'Google Sites' as KM Tool for Academic Environment

Farooqui N.K., IES Management College, University of Mumbai, farooquinajam@gmail.com

Abstract

This paper analyzes different factors related with a newly launched 'Google Sites for suitability as the knowledge management tool in academic environment.

The cost of software purchase and its maintenance is a big issue for academic and business world. The emergence of high speed Internet has given rise to new concepts like software as a service. SaaS (Software as a Service) has a new way out, the software is made and maintained by the software firm and used by the organization (Educational / Business). If the software is provided by the Google then it is double benefit for any organization.

Paper discusses different factors like privacy, scalability, support, Technology, ease of use, provision of essential services, Internal communication facilities, searching capability, accessibility, control and administration, licensing location & management and Cost of 'Google Sites' for implementing it as a KM tool in academic environment.

Keywords: *Software as a Service, Knowledge Management, Software, Google, Google Products, 'Google Sites', innovation, Education.*

1. Introduction

SaaS (Software as a Service) is the new buzz in the IT World. It helps the organization to get advantage of Information Technologies

without concerning the technical and implementation issues.

Developing software or purchasing a readymade one is costly affair for any organization. Total implementation cost of software including the hardware's, networking and human efforts goes much beyond the expectations of CIO (chief Information Officers) of any company. Educational organizations are mostly non profit organizations and they can not bear such a huge cost. The cycle of need, purchase, development, implementation and maintenance is long one in which most of the educational organization either fails or they partially succeed. Being in the remote place, not accessible by the big giants like Microsoft, Oracle, Sun Micro

Systems or IBM, they go to some small and medium software companies having less expertise in implementation & development of such a latest concepts like Knowledge Management. Results are partial success or total failures. Additionally Educational sector being the poorest one among Banks, Insurance, Finance and Construction sector cannot attract big companies or talented human resource for the sector. Again the reality is different; academia generates more knowledge compared to any other area of specialization. If the knowledge is organized, managed and used properly with the minimal cost, it can give you better results in terms of more and more innovations and intellectual property.

India has hundreds of universities and Education institution chains. These universities and academic chains run thousands of college in various educational domains. They have dental, medical, pharmacy, computer and information technology, arts, commerce, science, engineering, marine, defense, technical and diploma colleges running under them.

'Google Sites' was launched by Google on February 2008. The new service is a part of Google Apps and allows you to create web sites collaboratively. You can work together on a Site to add file attachments, information from other Google applications (like Google Docs, Google Calendar, YouTube and Picasa), and new free-form content. Creating a site together is as easy as editing a document, and you always control who has access, whether it's just yourself, your team, or your whole organization.[18]

Google offers templates, a rich-text editor, 10GB of storage for each Google Apps account and integration with other Google services so you can embed gadgets, calendars, spreadsheets, presentations, photo slideshows and videos. You can invite people to collaborate or just view a site and you can also publish the site so that anyone can view it.

1.1 What is SaaS: [17]

Simply SaaS can be defined as "Software deployed as a hosted service and accessed over the Internet."

Software's are generally sold on one time licensing model, but SaaS applications are sold frequently

using subscription model. The customers pay an ongoing fee for using the applications. Fee structure may vary depending on the number of users of the number of geographical sites that firm has.

Many vendors provide application programming interfaces (API) that expose the applications data and functionality to developers for use in creating composite applications. A variety of security mechanisms can be used to keep sensitive data safe in transmission and storage. Applications providers might provide tools that allow customers to modify the data schema, workflow, and other aspects of the application's operation for their use.

With SaaS, the job of deploying an application and keeping it running from day to day—testing and installing patches, managing upgrades, monitoring performance, ensuring high availability, and so forth—is handled by the provider. By transferring the responsibility for these "overhead" activities to a third party, the IT department can focus more on high-value activities that align with and support the business goals of the enterprise. Instead of being primarily reactive and operations-focused, the chief information officer (CIO) and IT staff can more effectively function as technology strategists to the rest of the company, working with business units to understand their business needs and advise them on how best to use technology to accomplish their objectives? Far from being made obsolete by SaaS, the IT department has an opportunity to contribute to the success of the enterprise more directly than ever before.

SaaS applications are distinguished by three factors licensing, Location and Management. Mostly this type of software's follows per user license, deployment of the solution is another issue. For example they may have a black box kind of thing placed in your IT environment, which will catch the queries and send it across the network to company's server.

The management of application provided by the IT firm is mostly done by that firm only. The customer will only use it using browser or through API supplied by the vendor. The SLA (Service Level Agreement) governs the quality, availability and support commitments.

2. Motivation

Many Colleges and universities in India are in the implementation stage for different kind of software's. They face different situations dealing with the technical and financial issue.

I was dealing with many vendors for our college's internal software. I face same kind of problems while implementations. In the meantime the 'Google sites' was launched. The website has provision for the implementation in the educational environment.

Different kinds of technologies coming from different parts of the world are ok. Difficult part is whether you can get benefit from them. Implementation and use of the technology is difficult compared to invention of the new technology. Particularly in software and computer fields there are hundreds of products, innovations and techniques. Only part of concern is that technology should be implemented, benefited and used by the common man.

'Google sites' is the solution which is free of cost and a hosted solution. This condition solves both the problems of the educational institutes, financial problems and the technical problems. The 'Google sites' is the best solutions to face both the common problems.

3. Background

This paper is of live application. Anyone can start implementing the 'Google Sites' for their educational organization by reading this paper. Following are some strong reasons given to support my above statement.

- a. Easy accessibility to the Internet (or Broadband) in most of the countries.
- b. High cost of implementation of software and hardware systems for Universities across the world.
- c. Many academic institutes (particularly) non IT institutes are unaware of the technicalities and related difficulties / availability.
- d. Up gradation of Hardware and software is a major issue for having an updated and live application in the organization. Like providing latest features of spam filters, anti virus software's is difficult task at organizational levels. For this an organization have to maintain different account with anti virus company then a separate account with email software company for updating of their email software against latest threats or spam filter technology.
- e. If an organization wants to get best of everything, best among Scheduler, email software, Chat software, getting accessibility through different means like mobile Phone & Internet desktops, 'Google Sites' is the answer.

4. The knowledge management in Academic Institute

Knowledge Management ('KM') comprises a range of practices used by organisations to identify, create, represent, and distribute knowledge. It has been an established discipline since 1995 [1] with a body of university courses and both professional and academic journals dedicated to it. As effectively managing information is a must in any business, and knowledge and information are intertwined, Knowledge Management is a multi-billion dollar world wide market. Knowledge Management programs are typically tied to organisational objectives and are intended to achieve specific outcomes; these can include improved performance, competitive advantage innovation, lessons learnt transfer and the general development of collaborative practices.

4.1 Knowledge management

Since the mid-nineties the label knowledge management has attracted much attention while information management has been used less. As with information management, there is no agreement on what constitutes knowledge management [2] According to Wilson, knowledge management is either used as a synonym for information management or for the 'management of work practices' which are to improve the sharing of knowledge in an organization [3]

4.2 Approaches to Knowledge Management

There is a broad range of thought on Knowledge Management with no unanimous definition. The approaches vary by author and school. Knowledge Management may be viewed from each of the following perspectives:

Techno-centric: A focus on technology, ideally those that enhance knowledge sharing/growth.

Organisational: How does the organisation need to be designed to facilitate knowledge processes? Which organisations work best with what processes?

Ecological: Seeing the interaction of people, identity, knowledge and environmental factors as a complex systems

And we are focusing on Techno-centric perspective for proposing the solution.

4.3 Knowledge and Information Sharing

Knowledge sharing is an activity through which information, skills, or expertise are exchanged among the members of an organization. The sharing of knowledge constitutes a major challenge in the field

of knowledge management because some employees tend to resist sharing their knowledge with the rest of the organization. [4] [5]. Information sharing in the form of consulting and informal communication is a widely recognized phenomenon in information science literature. Otlet, Briet, Bradford, and Allen pointed out the significance of scholars' communication networks. Crane developed the concept of invisible colleges, and showed that the most productive members in these networks have more social ties, influence, and visibility than those who are less productive. Studies on scholarly information seeking have long since established that researchers in most fields prefer informal information sources and channels over formal searches, as the use of informal sources saves time and energy [6].

5. The 'Google Sites'

The 'Google sites' is the part of Google Apps. The service uses public products of the Google like Gmail, Google calendar, Google docs ...etc. The 'Google sites' combines the features of all these products in a single umbrella, giving best among all. You go to any educational organizations internal or external web site you find various types of data on it. There may be Videos, Audio files, Photo Gallery of students and faculties, text files, spreadsheets, mark sheets, photos for identity card...etc. The components of Google are available on different handheld devices, which ensure easy accessibility. For example it is accessible on simple phones, blackberry etc. Availability of the space is another issue as Google is providing enough space with every account that you open with 'Google sites'. Shared address book and the availability of internal chat are other main features of 'Google sites'. Many products in the Google family have features like addition of country specific / religion specific holidays in the calendar. You can view the slideshow of the PowerPoint from within the browser only, if you receive them by email.

6. Components of Google Sites

The Google Apps has following 1 applications, supporting 'Google sites'. [7]

- Gmail.
- Google Talk.
- Google Calendar.
- Google Docs.
- The Start Page¹.
- Youtube & Google Video
- Google Maps
- Google Books and

¹ The first page of your website where you will combine all these Google products.

Google News

6.1 Gmail

Gmail currently provides 25 GB of storage space per account. It has an award winning Spam filtering technique. It also supports customized domain name systems like abccollege.com Powerful-searching facility inside the Gmail interface makes it easy for the user to search inside the huge email that everyone receives. Gmail being a Google product also provides the effective protection from the virus and Spam. Support on the mobile handsets makes it very attractive. In globalized world support to various languages is an issue, Gmail support almost all the major languages.

Gmail can be used as the email system for the 'Google Sites', all these features makes it very much suitable for the university to have the 'Google Sites' as their KM tool for accumulating, storing, manipulating and generating new information.

Email is the fundamental parts any academic organization. Furthermore Email has become the compulsory medium for official and unofficial communication in many organizations.

The Gmail is the best email, which is compatible with the 'Google Sites', and ensure good quality intra-communication. Effective filters, labels and Web clips are some of the features of Gmail. [8]

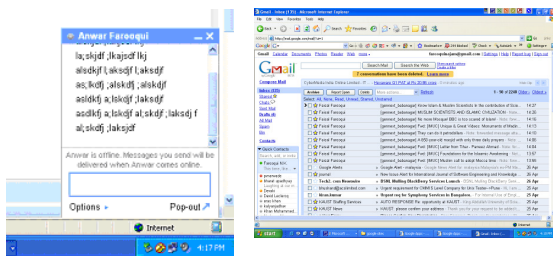


Figure 1: Gmail Inbox and Chat Screen

6.2 Google Calendar

Any university, academic organizations, chain of schools, chain of colleges, and chain of institutions will have events, schedules, programs, gatherings, conferences, meetings, guest speeches, lectures, seminars & symposiums. This information must be shared among all the concerned peoples like administrative staff, faculties, higher authorities and students. Google Calendar supports such facility. You can create a calendar and share it among number of peoples who have Gmail ID. They can see, edit,

delete the schedules as per you permissions. You have authority to give respective permission for all the said things. The interface of the Google Calendar is of drag and drop, so its easy for non IT peoples to manage, particularly the Administrative staff who usually deals with scheduling and rescheduling Google Calendar support amazing integrity as it can import data from any other calendar and scheduling applications like 'MS Outlook', so if you have some schedules already in the outlook, you can transfer it to share among your peer or students.

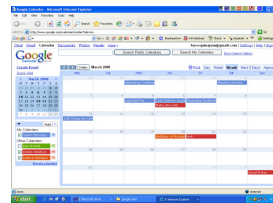


Figure 2: My Google Calendar Screenshot

You can automatically add holiday calendar of several countries your Calendar, even religious days of every religion is also available for the addition in your calendar. The addition of you events are easy task, as shown in the figure 4 you just have to click and add the event details. [9]

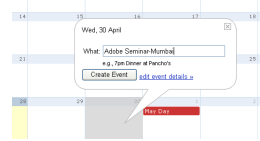


Figure 3: Addition the Event in Google Calendar

Calendar also supports the mobile reach. Calendar automatically sends you an SMS having daily agenda for the next day. The SMS arrives 5 PM previous day. These incoming SMS are free as Google has a tie up with different mobile providers. You also have the option of making you calendar public.

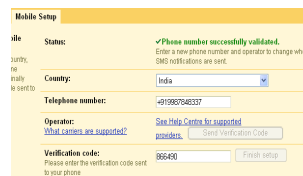


Figure 4: Mobile Setup screen of the Google Calendar

6.3 Google talk

In an academic Institute/ University environment, you always need to have interactive communications. Mostly the official communication is in the written format for which you can use Gmail. But peers,

students and faculties always require to communication. If all your students, faculties, administrative staff is on the Gmail, they can Chat online, send the files online to each and leave a voice mail message when the receiver is not logged into the systems. This feature is also supported on the Mobile handset resulting in far off reach when students, faculties and staff are traveling.



Figure 5: Talking / chatting with multiple persons at the same time on Google Talk

6.4 Google Docs

It's an amazing product from Google, as it provides editing by multiple peoples for your documents, spreadsheets and presentations. You remain the best controller, as you can publish it for your team, your department or the whole organization. Mobile accessibility is provided so your team can see the changes made by other member on the move. Particularly this product suites to the team of faculties who organizes different events in the university like conferences, events and seminars. All the peoples must be in the loop when anyone makes any modifications.

Now Google Gears allow you to edit the documents, spreadsheets and presentation offline and update when you get connected with the Internet. It is a great feature for the head of the organizational who mostly travels on long trips. It track the individual changes so it is easy to find who has done what and when. With the Google's searching ability you can search well inside the documents, spreadsheets and presentations. A well interface Google Documents file management system is available for use. In this file management utility you can hide, show share and upload the files.

Support to different languages makes Google docs a great product and increase its reach among different academic communities tightly attached to their respective regional languages. Even in some European and Asian countries, universities prefer their own regional languages compared to English. It makes them more effective. Also they may reach the masses in their respective area with their mother tongue. It is always useful to give education in mother tongue.

The availability of presentations files of various faculties, different files of assignment will be of great benefit to the academic organization. Particularly this mobile generation can access it from their laptop or from the mobile handsets. The case study files submitted by different students can also be shared and edited by the faculties, thus ensuring the work done even if faculty is traveling somewhere.

Lot of organization invites industry peoples as their faculty. These peoples always travel or they are not easily available for the lectures. In this condition submitting the case studies and checking them by faculty become difficult. This Google documents makes all these things easy. You can upload the presentations up to 10 MB spreadsheets up to 1 MB. [10]

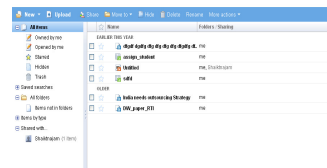


Figure 6 : File Management Screen of the Google Docs.

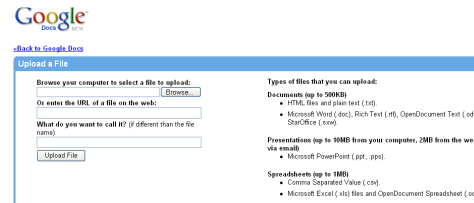


Figure 7: Google docs upload Screen with Upload restriction details

6.5 YouTube & Google Video

These two products are the darling of younger generations. Currently if you see the situation in Schools and Junior colleges, everyone seems to be on Youtube. This product of Google can be integrated with the 'Google Sites' so that you can include many educational videos which are available on the Youtube. Additionally you can also have some of your videos which your students, faculties and staff will be able to see from the home page of 'Google Sites'.

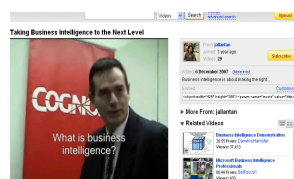


Figure 8: Business Intelligence using COGNOS
Figure 9: College Functions

Advantages related to Youtube and Google Video [11]

1. Point of attraction for young generations.
2. Interactivity.
3. Can put up as many as videos you want.
4. You can also have your lectures recorded and placed on these sites.
5. Videos are searchable so they are easily accessible.

6.6 Google News [12]

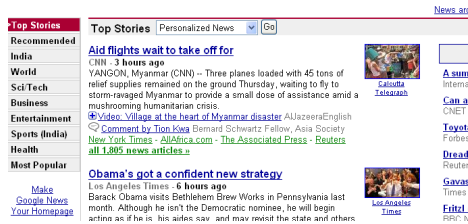


Figure 10: Google News in a well categorized Manner

In a multicultural, international academic organization the World news, National news and regional news has importance. Students and faculties always look for happening going on in their place or in their field. Google news is the best solution for that. If university places this feature on the 'Google Sites' main home page they can access it and see what is going on in their place or in their subject.

Google news is an excellent news crawler. It gathers the news from 4,500 different sources, categories it in different subjects, areas and put it on Google news page. You can search inside the Google news with Google search technology. You can even create an alert called as 'Google news alert'. You can submit a search word. Any news matching with the search world will be forwarded to you inbox.

It has other features like it gives key name which are currently there in news. The news can be converted into all the regional languages that Google supports. (See Figure 8).



Figure 11: Google News in Hindi (National Language of India)

Google news also has two latest features like Archive search, Blogs search. Archive search will let you search in last 50 years data. It can also show a timeline for the word that you search in archive (Figure 9). This feature helps someone to analyze any news even before the Google was started.



Figure 12: Searching 'Indian independence in 1940's'.

6.7 Google Maps [13]

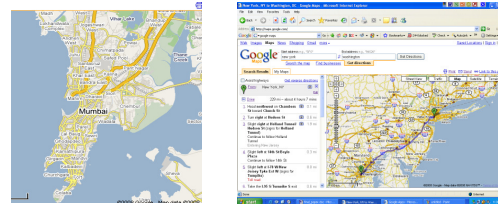


Figure 13: Map of Mumbai in Google Maps
Figure 14: Drive Direction from New York to Washington.

Traveling, knowing other places is the part of day to day life. Students, faculties and staff members need geographical information while they travel. Now day's maps even have financial importance. You can put photos and advertisements in the maps. These maps are available in different formats like maps; hybrid and satellite photos. Google maps even provide features of finding direction from one city to another. This feature currently is available only for United States. You can find every turn, every path to go to some city from some other city. This feature if connection from 'Google Sites' home page of your academic organization will help members in map and geographical areas.

You can search the maps for particular location and save it in 'My maps' which you can later retrieve. This is quite helpful when are traveling and want to have some maps stored so that you can easily access without searching for them again.

6.8 Google Books [14]

The academic institution or the university can include the Google Books on their home page. As the books are the important part of the academic world, this

must be the part of your home page. This product from Google has several thousands books scanned available for browsing. You can have three different types of views of each book like full view, Limited Preview, Snippet view and No preview. You can view different parts of the books depending upon the permissions from the publishers. Google has tried to provide as many as books by digitizing biggest libraries of the world.

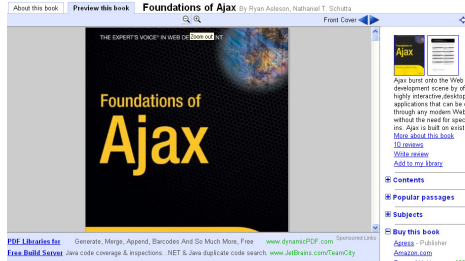


Fig 15: Limited Preview of book 'Foundations of Ajax' by Ryan Asleson, Nathaniel T. Schutta.

In Google books you can search inside the book, it makes the life easy not only for the students but for the faculty also. While preparing for any topic it hits the book even if the word is not there in the title of the book.

At least availability of Table of Contents makes it easy for any one to find the topic which he or she desires to find in any books. Google Books also give you the name of publishers and libraries where you can find this book. 'My Library' is another virtual collection feature from this product where you can collect your favorite books and store them for future purchase or you can see them later when you have enough time to read all the contents. Reviews are other feature of the Google books, where you can write the review of the book or you can read them before purchasing the book from vendor.

7. Integrating them All

The systems administrator sitting in the admin room can maintain the whole web contents of your Google sites. The system administrator of the university or the academic institute can custom built the front page as it is totally customized. The 'Google Sites' is the central place where a student, faculty or the staff can view the any type of media available for them in the organization. Any Google Gadgets that administrator wants can be placed on the first page, which gives a 100 percent customized and new look to the front page of the organization.

Furthermore the 'Google Sites' support almost all the major browsers & languages, so global access is guaranteed. The 'Google Sites' is supporting migration from any other email management tool like Microsoft Exchange or outlook. You can transfer you calendars, email and other appointment details from those tools to the Google applications. Even old email can be migrated to the Gmail. If you don't want to loose your old email address and still want to use the Google applications in different areas, you can use the email routing applications. Here the email will be received on the old email ID and from there it is migrated internally to you email id. Policy management services include the

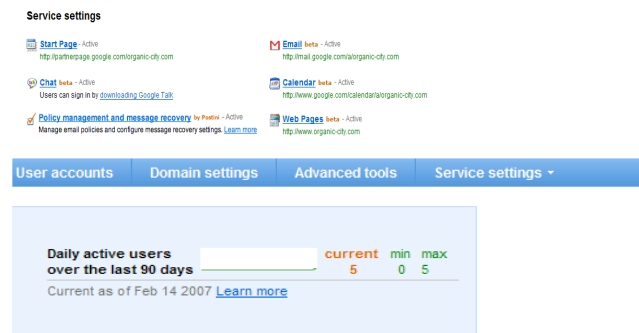


Figure 16: Parts of administrative screen for 'Google Sites'

With the help of Google Application engine you can host any custom build application on Google infrastructure. This helps the organization in using customized application for some customized work.

You can make the starting page of you academic organizations which will have glimpse of almost all the Google products. Following is the page of an organization called organic city which combines many Google Products.



Figure 17: Start page of the organic city web page, which has maps, news, and internal file management system

8. Applicability

The big question is why "Google Sites' is suitable for the academic environment. I think it is 100 percent

suitable for the academic environment, because of two strong reasons.

1. This works as a SAAS (Software as a Service): Storage, maintenance and working of the software is the responsibility of the software service provider. The Google will maintain all the things and they guarantee the 99 % uptime for all their services.

2. Google is an Innovation Company: Google with the product like Google talk, Google Docs, Google Spreadsheets, GMAIL, Google Books, Google Maps and Google News...etc. The pace with which Google is coming up with new products and services, everyone is looking at Google as the Innovation Company. In a recent publication 'Harvard Business Publishing' has termed Google as '**The 21st Century Company**' for accepting the ideas from their employees. [15]. Google is among the top 20 innovative companies in north America.[16]

In the future also it is expected that Google will come up with a Phone and an operating system. Already Google has a mobile software development platform called Android.

As far as **privacy** of data in academic environment is concerned, Google has best security mechanism. The products like Gmail, Calendar..etc has their own protection, while the data that you will put in the 'Google Sites' will have access control mechanism which you can control through First Page, so that data will be accessible by those peoples only. Google has excellent privacy policy which protect the users information. [18]

Scalability is another issue, as Google is providing 10 GB of space with each 'Google Sites' account. I think for medium academic organization or a University offering courses to about 10 thousands students it is a sufficient storage space. In the future also Google will come up with more and more space for other products, it is expected that it will also grow.

Google provides 24 X 7 technical help. All the products have help websites, and they have demos, videos and FAQs available on each of products which are the part of 'Google Sites'. All the software, demos and other things are in the standard languages, protocols and compatible with each other so in terms of **support** Google is excellent.

Google is a king as far as searching **technology** is concerned. Other technologies like availability on different mobile handsets, reach with leading telecom providers in the whole world is with the Google. It is available in leading languages of the world, so quit

reachable. The whole 'Google Sites' is of a new concept called SaaS.

Since 'Google Sites' is the browsers based software. All the components involved in this group of project are well known to the world, every next person is still using them even if they are not using 'Google Sites'. The kind of interface Docs, Books, Calendar and Gmail uses is very easy and understandable by any kind of person any where in the world. So in terms of **ease of use** 'Google Sites' is unbeatable.

The group of services that 'Google Sites' involves is Calendar, Documents (all types of documents and work sheet files), Gmail, Books, Maps, Videos, News. So everything that a academic institution require like a University are all here in the 'Google Sites'. So it has all the **essential services**.

The products like Google Talk and Chat facility inside the Gmail interface provide a great interaction and **communication facility** within the academic facility. Every products comes with the Google searching capability so its easy for any one to search inside his or her email, inside their documents, inside their chats or inside their Books or news. So in terms of **searching facility** 'Google Sites' is number one in the world. The 'Google Sites' can be accessed on the Browser, desktop browser or on the mobile handset browser. This guarantees the long reach of this product and world wide **accessibility**. With the 'Google Sites' you can control user accounts, customized your services, email routing, and you can have your own policy in terms of regulatory issues. So in terms of access control 'Google Sites' provide better facilities.

9. Conclusions

With reference to above points 4.1, 4.2, 4.3 and 4.4 you can conclude that collecting, managing and sharing the information is not an easy task. Due to big size of the organizations and habits of different kinds of peoples in the organization you can not share the information in an efficient way.

Furthermore it is clear from point 1 (Introduction) that software making / purchasing from the vendor and implementation is economically not feasible for middle and large academic organizations.

The innovative way from the Google is service called as 'Google Sites' which is hosted service. It provides a collection of products (from 6.1 to 6.8), which can host the data of any academic organization. The point 8 (Applicability) discuss in detail how 'Google Sites' will be a suitable service for any academic organization. It can provide best KM Services in current scenario.

References

- 1] Nonaka, I. and Takeuchi, H.,1995
- 2] Al-Hawamdeh, S. (2002). Knowledge management: re-thinking information management and facing the challenge of managing tacit knowledge. Information Research from <http://InformationR.net/ir/8-1/paper143.html>.
- 3] Corral, S. (1998). Knowledge management: are we in the knowledge Management business? from <http://www.ariadne.ac.uk/issue18/knowledge-mgt/>
- 4] Ciborra, C.U.; Patriota, G. (1998). "Groupware and teamwork in R&D: limits to learning and innovation". R&D Management **28** (1): 1-10.
- 5] Bock, G. W.; Kim, Y. G. (2002). "Breaking the myths of rewards". Information Resources Management Journal **15** (2): 14-21.
- 6] Taljaisic (2002) Information sharing in academic communities
www.uta.fi/~lisaka/Taljaisic2002_konv.pdf
<http://www.google.com/calendar/render?tab=mc&gssionid=4RTxpGhYfIMmRMrYERc82A>
- 7] **Google sites Learning Page**
<http://www.google.com/a/help/intl/en/business/applications.html>
- 8] **About Gmail**
<http://mail.google.com/mail/help/intl/en/about.html>
- 9] **Google Calendar Main Page**
<http://calendar.google.com>
- 10] **Google Docs Details**
<http://www.google.com/a/help/intl/en/users/dands.html>
- 11] **About Youtube**
<http://en.wikipedia.org/wiki/YouTube>
- 12] **About Google News**
http://news.google.com/intl/en_us/about_google_news.html
- 13] **Google Maps**
<http://maps.google.com/maps?ie=UTF-8&hl=en&tab=wl>
- 14] **Google Book Search**
<http://books.google.com/support/>
- 15] **Harvard Business Publishing**
http://discussionleader.hbsp.com/davenport/2008/04/googlethe_21st_century_company_1.html?cm_mmc=npv_-listserv_-APR_2008_-TechOp

16] Innovative index Group
<http://googleinnovation.blogspot.com/>

17] SaaS: MSDN Library
<http://msdn.microsoft.com/en-us/library/aa905332.aspx>

18] Unofficial news and tips about Google
<http://googlesystem.blogspot.com/2008/02/google-sites-launched.html>

19] Google privacy policy
<http://www.google.com/privacypolicy.html>
<http://www.google.com/a/help/intl/en/admins/terms.html>

Copyright © 2008 by the International Business Information Management Association (IBIMA). All rights reserved. Authors retain copyright for their manuscripts and provide this journal with a publication permission agreement as a part of IBIMA copyright agreement. IBIMA may not necessarily agree with the content of the manuscript. The content and proofreading of this manuscript as well as and any errors are the sole responsibility of its author(s). No part or all of this work should be copied or reproduced in digital, hard, or any other format for commercial use without written permission. To purchase reprints of this article please e-mail: admin@ibima.org.