

## SARS KNOWLEDGE PORTAL

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*Abstract:* Severe Acute Respiratory syndrome or SARS for short is a respiratory illness that brings about atypical pneumonia in infected patients. A knowledge portal for SARS will be developed in order to disseminate information and act as an interactive web site that offers a broad array of resources and services to the public, especially to Malaysian. The inspiration of developing the portal is due to arising problem regarding method of distributing information about SARS and lack of public awareness towards the jeopardy of the disease. Rich Internet Application (RIA) technology will be integrated together with the portal which will enables all information and services offered being displayed in a single screen layout. Rich Internet Applications offer the benefits of distributed, server-based Internet applications with the rich interface and interaction capabilities of desktop applications. The key difference between a typical Flash site and an RIA is that RIAs possess the functionality to interact with and manipulate data, rather than simply visualize or present it.

Keywords: SARS, Knowledge portal, Knowledge management, Rich internet application technology

### INTRODUCTION

The outbreak of SARS have elicited the awareness of the importance of knowledge in that particular disease in terms of how the virus spread, the do's and don'ts during the outbreak, treatment needed etc. The introduction to SARS knowledge portal will enable the society to share their experiences and possible precaution to take during the outbreak. An effective portal is required to solve the current problems and weakness in disseminating information to the society. Portal is a term used for WWW site that is to be a major starting site for users when they get connected to the Web or that users tend to visit as an anchor site. There are general or web portals and specialized or niche portals. Web portal services often include a search engine or directory, news, email, stock quotes, maps, forums, chat, shopping, and options for customization [2]. These are only some of the most frequently offered services; large portals often include dozens or hundreds of bundled services. Portals or gateways are one-stop destinations for advertisers and marketers, which offers endless variety of product and service choices.

The development of SARS knowledge portal is essential where time consuming task will be shortened and the cost of the resources will also be greatly reduced. The portal will provide a platform for the sharing of knowledge where the element of knowledge management came into the pictures. The pursuit of knowledge has been the engine of progress since the dawn of history. A key piece of knowledge can advance a career, a company, or even a civilization, but faulty or incomplete knowledge can bring frustration and defeat. Knowledge is something that a person experiences when they come in contact with information or data and which leads to action. For example, just reading about how to avoid SARS viruses is not knowledge, it's just reading. Taking that information and actually creating a cure or antivirus is knowledge. Only when information is made actionable can it become knowledge. In essence, the path to knowledgeable action is depicted in Figure 1:

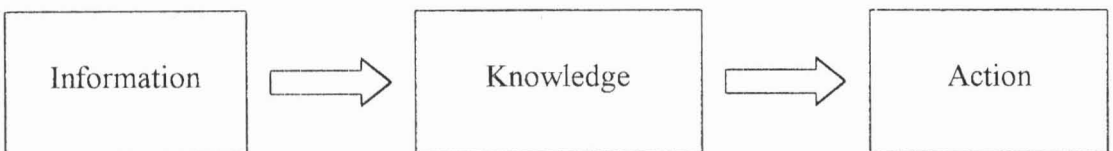


Figure 1: Transforming Information to Action

The last step, action, is based on a person's prior experiences, personal and corporate values, and any business rules that govern their particular circumstance. We could say that action is a filter or frame for what becomes knowledge in the organization or society. In this age of information, knowledge is the most important factor in the long-term success of both an individual and society. Monitoring and identifying relevant information, and assimilating, managing and responding to it, is placing increasing time demands on the individual.

In recent time, information itself is no longer scarce but knowledge is. Many people have reached a point of "information overload", where they do not have the time to find the valuable information themselves and convert into knowledge. Architecture for a successful knowledge portal consists of four important elements i.e. available (if knowledge exists, it is available for retrieval), accurate in retrieval (if available, knowledge is retrieved), effective (knowledge retrieved is useful and correct) and accessible (knowledge is available during the time of need). Figure 2 illustrates the architecture for a successful knowledge portal.

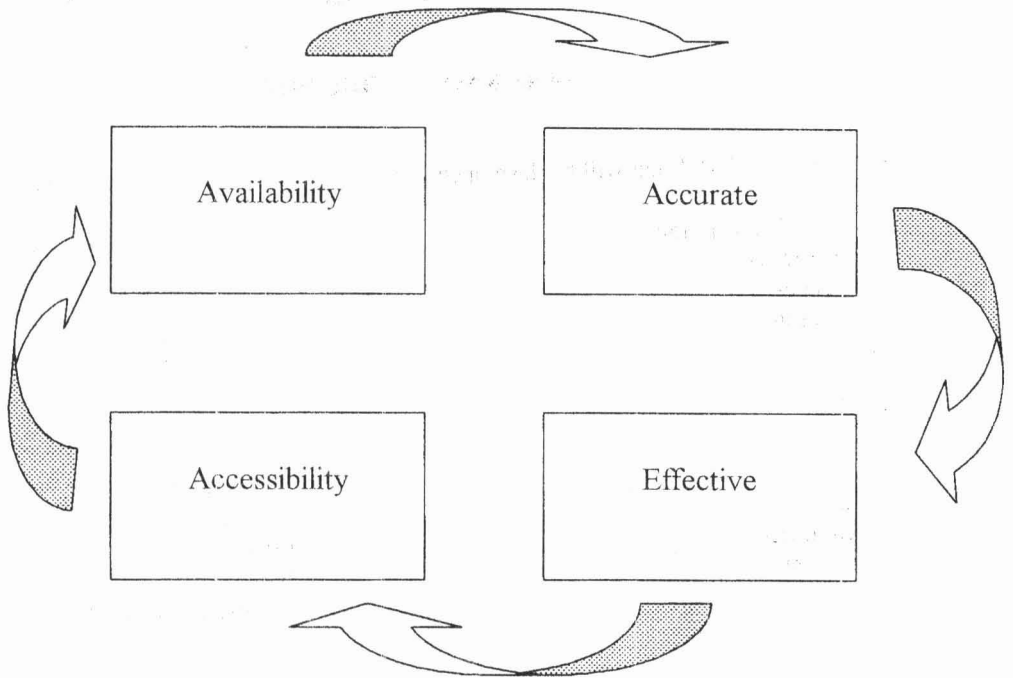


Figure 2: The architectural design of a successful knowledge portal

Knowledge Management is not a new concept - in 1940, HG Wells wrote: *'An immense and ever-increasing wealth of knowledge is scattered about the world today; knowledge that would probably suffice to solve all the mighty difficulties of our age, but it is dispersed and unorganized'. We need a sort of mental clearinghouse for the mind: a depot where knowledge and ideas are received, sorted, summarized, digested, clarified and compared.* [1]. There are two types of knowledge: explicit and tacit. Explicit knowledge is knowledge that is very definable, and very objective. Hence it can be easily documented, and transferred. Tacit knowledge on the other hand, is the knowledge that lives in peoples' head and in their practices. It's the knowledge that hides itself from their consciousness even though they put it to use every day. Tacit knowledge manifests itself only through the practice in which it is used. KM in knowledge could be a blended approach of explicit and tacit knowledge.

Nichani and Rajamanickam [4] said that storytelling is one way to *influence* the tacit knowledge in people, just as coaching influences the tacit knowledge in players. Stories are full of information because they draw on common understood truths to convey more information than is obvious. A story that "engages" people means that the listener or reader adds a lot of knowledge and information, so that the story "as experienced" can be extremely rich in terms of the total knowledge "activated" or

"accessed" compared to what is explicitly mentioned [4]. Capturing individual knowledge so that it can be understood and applied by an entire organization or society is a key objective of most knowledge management (KM) initiatives. As a result, many tools and architectures outline a specific process or technology for organizing large quantities of knowledge so that it can be indexed and disseminated back to its audience. The concern about the instruments or technology of communication has always been central to concerns about information and knowledge.

The main objectives for the development of SARS Knowledge Portal are:

1. To enable users to share knowledge in secure environment, by online forum or discussion group and chat room
2. To produce and distribute essential information, latest news and report about the deadly SARS viruses.
3. To make the portal as a one stop source of information and knowledge resources about the main topic of SARS.
4. To give users a better understanding and awareness by implementing multimedia element with the integration of Rich Internet Applications Technology.

### **SARS KNOWLEDGE PORTAL**

SARS Knowledge Portal that will be developed consists of several important features:

- Forum and discussion board– provides and displays discussions on any issues related to SARS among the user of the system. Medical consultants will be invited to share their opinions and experiences regarding the diseases. In order to avoid any abuse on the topics posted, the system administrator will filter the conversation between the users of the portal. All informative and experience-based information will then be archived in the system database so that any questions regarding the specific topics that have been discussed could be sorted and retrieved efficiently by the system. The forum will also meant for communicating latest news in a relevant and timely manner.
- Registration – The system will be providing a registration form to be filled by potential new users in order to register them with the biographical database. The new user is required to fill their particular details, user id and password. The personal information will be used for security control and analysis of the frequency of user who login to the system.
- E-Commerce – the e-commerce section will put on view the products, whereby users only need to browse and plump for the product that they need.

The following issues are in need of consideration to ensure the successfulness of SARS Knowledge Portal:

- Measure the impact to society - The point of knowledge management in the society is to transform the information-based society to knowledge-based society. We need to find ways to ensure this happens by disseminating peoples experiences with SARS so that other people will take early precautions as compare to the situation where the society have to wait for some time before research result regarding the disease being exposed out by government agency. How we could reduce the numbers of people from being infected by SARS virus and the amount of times that could also be reduced to get government approval on information regarding SARS are the questions, which will be the real measures that will show the value of SARS Knowledge Portal initiative.
- Rewards Knowledge Sharing - In most companies, we get benefit by hiding what we know. Trouble is, hiding knowledge leads to duplication of energy and of course, money. We need to teach new, collaborative behaviours, and that's where rewards come in. For example, we will implement a website that allows people to access discussion group, practice-group profiles, and latest news and even e-mail exchanges relevant to current issues on SARS. The big challenge is to get people to share their knowledge on the Internet. We will create a "Top Ten" list of the most frequently accessed contributions. Being on the list gave the contributors recognition for his ideas or experiences.

## INTEGRATION OF RIA TECHNOLOGY WITH SARS KNOWLEDGE PORTAL

The rationale of integrating SARS Knowledge Portal with RIA technology is that the technology has big potential in Asia when more organizations in the region learn of its benefits in increasing the Web experience of their online customers and help to reduce costs. Although RIA is well suited to e-commerce application such as online reservation and banking, potential for the technology in e-learning and tool for knowledge delivery strategies is undeniable. Combining features such as responsiveness and intuitiveness of a desktop application with ease and cost of deployment of a Web application, RIA provides intelligence at a user's desktop, thus allowing it to perform several processing tasks in an online environment [5]. This helps reduce use of bandwidth and processing job done at the back-end systems, namely server and database, which translates into cost cutting for managing the web portal. At the same time, the user benefits from improved Web experience with RIA, which overcomes the click-and-wait experience due to submitting multiple hypertext markup language (HTML) pages to surf for relevant information on SARS. Forum and discussion board will be fitted nicely with other relevant information so that it will all be in one page or four pages at most. Macromedia MX was the first complete family of products and technologies designed to work together to deliver Rich Internet Applications. RIA(s) take advantage of interactive or rich client technology to offer more intuitive, responsive, and effective user experiences on the web. They merge the interactive user experiences of desktop applications with the deployment flexibility and cost profile of traditional web applications to invent a single, integrated user experience.

### CONCLUSION

SARS Knowledge Portal perhaps would be a one-stop solution for people who want to have extra and timely information, news, technologies and knowledge related to SARS. The portal would ease in realizing the importance of knowledge about this jeopardized disease. Utilization of the Internet enables users to access the application regardless of the location and time. Consequently, it will be easily adaptable and obliquely a time saver. If done right, KM is supposed to create a more collaborative environment, cut down on duplication of effort and encourage knowledge sharing—saving time and money in the process. The problem is, in many cases KM devolved into a purely technical process, resulting in expensive web-based application sitting unused by oblivious, fearful or resentful Internet users. Knowledge Management is an evolving discipline that can be affected by new technologies and best practices, but there are some things that we do know for sure [6]. There is a systematic approach to successfully implementing knowledge management together with web portal if we could analyze what are we trying to achieve, map out a strategy, garner support from the institution and have a way to measure it, and then we are much more likely to be successful.

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