



Institute for Management and
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TRANSFORMING SABC: TURNING TO KNOWLEDGE PORTAL FOR INFORMATION SHARING

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This case was written by Fadhilah Mat Yamin, Wan Hussain Wan Ishak and Zakirah Othman, UUM College of Business. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation.

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Introduction

On Sunday, April 1, 2012 Prof. Zulhilmi, the dean of SABC had his breakfast at Santhai Café. As he looked out through the windows at the view of the beautiful lake, he thought about the way on how to manage information sharing in the school. Currently, the information sharing is chaos! "Ahh... Information overload!!!", suddenly he shouted silently. His mind continued to ramble. When his colleague Mr. Norman approached and greeted him, Prof Zulhilmi expresses his worry. Mr. Norman replies "Yes, we have to do something, everyday we got a lot of information. We should do something about it". The clock shows 8 am. Together they walk leaving the cafeteria.

Arriving at his office, Prof Zulhilmi sees so many things written at the whiteboard. Memo stick on the soft board, "Things to do... yes... so many things to do, what if I got urgent meeting this morning?" he speaks of himself.



Figure 1: Things to do on white board



Figure 2: Memos on Soft board

At current, SABC use email and internal memo to communicate. Email and memo are sent to broadcast and disseminate the news and information among the school community. Both email and memo are organized and managed by the school's management staff headed by Assistant Registrar (AR). The university employed Outlook Email System to manage the emails (Figure 3).

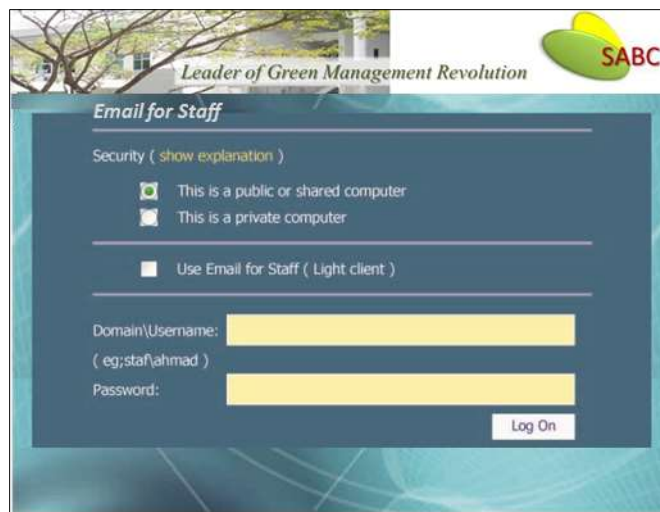


Figure 3: Outlook Email System

Typically, everyday new information is created and disseminate through emails. Sometime hundred of emails were sent and downloaded into recipient inbox. This practice was found causing negative impact to the SABC community. The problems are; (1) information overload, (2) information organization, (3) information missing or hidden and (4) information prioritization.

Too many information received everyday causing information overload to the recipient. Information overload is a situation where the recipients have lost their focus on the information. The logical connection and link between the information has lost due to the abundance of information. In this situation, information will give small impact on the organization performance. Common problem, some of the community member will say "I didn't notice..." when he was asked about the school event, even though information about the event was repeatedly disseminated.

Information overload will be more critical if the recipients fail to organize their mailbox systematically. Mailbox is an information repository that rich with information. Poor organization of the mailbox will cause difficulty to trace and retrieve the email that contains the desired information. At SABC, frequently the academic staff absent from the school meeting. When the show cause letter is issued, the staff prompt with puzzle "...Oh! When was the meeting actually? I thought it is tomorrow". The administration team was then blame because reminder email about the meeting was not sent before the meeting. In fact, the notification email was sent one week before the meeting followed by a reminder email a few days after that.

Poor organization of the mailbox will hide the existing email as new emails keep downloading into the mailbox. Finding old email in the mailbox is a tedious and time consuming. Making it worse, some emails do not have an appropriate subject. Even some emails have no subject. It's blank! "Technical error", say the senders. Without proper subject, the emails are hard to trace and retrieve.

The default setting of email system will sort email according to the time stamp of the email. The email cannot be sorted according to the importance of its content. Some emails might contain important and urgent content. The default of the email system will push it down hiding its priority.

Prof. Zulhilmi sees this as essential problem in SABC. "Email is good for communication. It fast, saves cost... paperless! But not good enough" Prof. Zulhilmi address his concern during school monthly meeting. Mr Norman nodded his head while lending his ears to Mr Kumar. Mr Kumar whisper to Mr Norman, "should we have an information centre, where we can always refer to...". Mr Norman nodded. He than ask Mr Kumar to speak out his idea to the meeting. "Prof, I think we need some

kind of information centre that can publish all kind of information and store it until we don't want it". "We can add, edit and delete..." add Mr Norman while looking at Mr Kumar. "Well, sound interesting... what says you Dr Fatinah?", Prof Zulhilmi change his focus to Dr Fatinah head of ICT committee. "I think we can setup an Information Portal or Knowledge Portal, so that everybody can share information or knowledge", says Dr Fatinah. She then explains "Portal is a web based application than can be assessed from anywhere. So, even though you are not in the office, still you can open the portal". Prof Zulhilmi raise his hand to interrupt Dr Fatinah, "we already have a portal and website, can't we just use the existing portal?". "I don't think that is suitable", says Dr Fatinah. "Let me explain...", Dr Fatinah continue her explanation about the portal. After half an hour, Prof Zulhilmi announces "Well we have heard an interesting idea about an information centre. I guest we should call it 'Knowledge Portal'... sound more 'academic'". Other members also express their agreement. "Dr Fatinah, your committee is given full responsibility to design and setup this portal. Hope we can use it as soon as possible. I give you my 100% support!", Prof Zulhilmi address his support to the project before closing the meeting session.

SABC: The Background

School of ABC (SABC), was established under College of Business (COB) on 1 May 2011, when it moved into a new building with new facilities. The school is a merging of two important management field that are technology management and logistic. Two departments was setup, namely the Department of Technology and Operations Management, and the Department of Logistics and Transportation.

Figure 4 shows SABC organizational chart. Being a new school, SABC has to strive forward to achieve the Key Performance Index (KPI) that was setup by the university. Like all competitive institutions, SABC has a long-term vision and plan, which is embodied in the following vision statement:

"The SABC vision is to be the leader of Green Management Revolution in Technology Management and Logistics"

In order to achieve the vision, it has been broken down into the SABC mission, which is to provide a conducive and dynamic environment for knowledge management through transformations of academic agenda, value proposition, and resources.

Currently, SABC offers undergraduate and postgraduate programmes in the following related fields such as; (1) Bachelor of Technology Management with Honours, (2) Bachelor of Operations Management with Honours, (3) Bachelor of Business Administration (Logistics and Transportation) with Honours, (4) Master of Science (Technology Management), (5) Master of Science (Operations Management), (6) Master of Science (Logistics and Transportation) and (7) Doctor of Philosophy.

SABC is headed by a dean and supported by two head of departments (Figure 4). Each head of department is responsible for SABC academic program. Since it was established, Prof. Zulhilmi has played a significant role as the dean of SABC. The administration staffs headed by Assistant Register provide support to the school management. The supports include human resource management, financial, inventory and logistics, clerical work and etc.

Prof. Zulhilmi also utilizes his academic staff to support the school's programme and students. Prof Zulhilmi believe that in order to achieve the school's mission all staffs including academic, management and support staff have to work together. "Each and every one of us has responsibility to achieve our goals", highlight Prof Zulhilmi. In line with the school's mission, 12 committees have been setup. The committees are publication; research, promotion and media, welfare and sport, information communication technology (ICT) and emergent technology, training and seminar,

student, logistic, strategic and key performance index (KPI), accreditation and quality, academic staff and development, student development and alumni, internationalization, and consultation and industry collaboration.

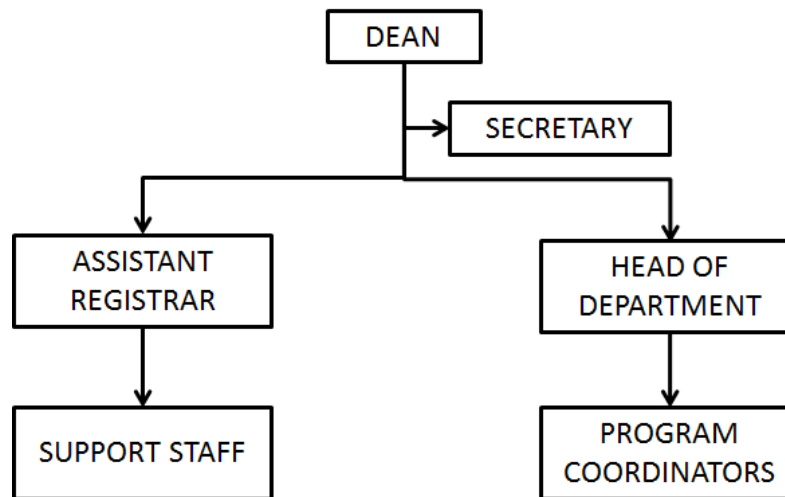


Figure 4: SABC Organizational Chart

In order to enrich and to culture the research and consultation in the schools interest areas, six special interest groups (SIG) have been formed. The SIGs are ICT and emergent technology, energy and environmental, construction business, agro business, manufacturing and logistics. The students are also encouraged to join the SIGs. This initiative is to encourage students to participate in the school's programme and to expose them to the real application of technology management and logistic.

ICT and Emergent Technology (ICT & ET)

SIG ICT & ET is aimed to promote information sharing on all aspects of ICT and emergent technology among group members. The objective of this SIG is to promote best-practice and research in the management of ICT and emergent technologies such as nanotech and biotech. SIG ICT & ET encourages innovative research, open discussion of new ideas through conferences and a variety of communication resources for its member and the world.

Energy and Environmental

SABC created SIG with the prime objective to promote interaction and research in energy and environmental issues. The SIG provides a platform for education, networking and collaboration for exploring issues in the area of energy and environment. The membership of the SIG is made up of faculty members and students sharing the interest in energy- and environment-related domains. Areas of interest for this SIG are the exploration and application of direct research to the energy and environment in:

- Strategic, Regulation and Policy Analysis
- Optimisation Process
- Sustainable Energy Consumption

- Renewable Energy Development and Application
- Mathematical Modelling and Simulation
- Security Risk Analysis
- Sustainable Manufacturing Process
- Technology and Economic Assessment
- Energy-environmental policy design and assessment
- Environmental impact assessment
- Energy Impact on Sustainable Development
- System Dynamics Simulation

Construction Business

SIG Construction Business has interests in areas related to Construction and Project Management with regards to Researches, Training, Supervision, Consultancy and Education. Its main role is to train students in the discipline of construction and project management and to utilize the expertise available at SABC and collaborate with the relevant industries in terms of knowledge transfer, training and consultation.

Manufacturing

SIG Manufacturing & Services is committed to advance the industrial capability of manufacturing and services industry especially in the Northern region of Malaysia. The mission of the SIG are:

- a) to initiate, support and co ordinate research, consultation and training in manufacturing and services;
- b) to disseminate the results of research done in these areas to potential users;
- c) to promote and provide resources for education in these fields.

Logistics

SIG Logistics consists of expertise that is passionate and committed on exploring the frontier of knowledge in Logistics and Transportation management field. This field interacts with virtually all industrial and public sectors and affects every citizen's daily life. It adds unprecedented value to the economic, social, technological and political development of a country. A very dynamic field with truly multifaceted challenges which require a balance between theoretical and practical approach in dealing with those challenges. Our strong cooperation and collaboration with the logistics and transportation industry in Malaysia had served us more advantages to study and understand the market well thus making us more agile towards the market changes and needs. Our focus activities are to do related research, case study, consulting and foster more cooperation with the industry through strategic academic visits and discussions.

The Transformation Begin

SABC is supported by committees and SIGs. Both are affiliated by a group of lecturer. Each committee is responsible to a task assign by the dean. While SIGs have to establish research related to the group interest area. Typically, each head of the committees and SIGs will report their activities and disseminate the information through email.

The dean has taken a positive step to improve information sharing at SABC. The ICT committee lead by Dr Fatinah has been given responsibility to design and develop the portal. Through the portal, information can be posted and retrieve at any time by the school members. The approach is to overcome information overload problem, information organization problem, information missing or hidden and information prioritization.

Dr Fatinah begins her work by calling her committee members to discuss this new task. Once she has finished her briefing about the portal, Dr Siew gives her feedback "I think this task is quite heavy... and the time is very limited. Why don't at this stage we just focus on SIGs and administration staff?". "I agree, furthermore SIGs involve with research and development activities. I am sure there are a lot of thing that SIGs can share", says Dr Zakiah. "True, later we can include committee in that portal, but first let make it happen!", says Dr Siew. While smiling, Dr Fatinah ask the other members "Well, how about others?". Everybody seems to agree with Dr Siew suggestion. "Then who should we give the responsibility to?", ask Dr Fatinah. "I think you should lead the task force Dr Fatinah.", suggest Mr Kumar. "I will assist you...", says Dr Zakiah. Dr Fatinah accepts that responsibility and thanked Dr Zakiah for volunteering. "Now we need one more person that has experience in web application development", Dr Fatinah highlights her concern since web application is not her and Dr Zakiah expert area. "I think we should invite someone from School of Computing", suggest Dr Siew. "Ok I will invite one researcher from School of Computing as my team member". Dr Fatinah closes her meeting and begins to look for a new team member. Dr Fatinah browse expert directory at Research and Innovation Management Center (RIMC) website. She found Mr Wan expert and research interest matches her requirement. She then has invited Mr Wan to join her team.

First meeting has been held between Dr Fatinah, Dr Zakiah and Mr Wan. They brain storm and list out the information that should be included in the portal. The information are as following:

- 1) Short and brief information about SABC
- 2) List of academic staff
- 3) List of SIGs
- 4) List of students by SIGs
- 5) List of school and SIGs activities
- 6) List of school and SIGs event
- 7) Announcement
- 8) Current (monthly) calendar

They also agree to adopt Rapid Application Development (RAD) methodology in the development of the portal. RAD is a software development methodology that focuses on the software development. It involves very minimal planning. However, during the development the requirement can be changed if necessary. Typically, RAD allows software to be written much faster. Mr Wan explains to the team that RAD consists of four phases that are: requirement planning phase, user design phase, construction phase, and cutover phase. "We should first begin with the requirement", says Mr Wan. "Now that we know what information to be included, we should meet the dean and all head of SIGs. We will present the list and see what their respond are", Dr Fatinah then explain the rationale of the meeting.

Dr Fatinah arranges a meeting with dean and all head of SIGs. She presents the plan for knowledge portal by focusing on SIGs. Initially dean agrees with the plan and he wants the portal to be completed in a short time. After the meeting, Dr Fatinah calls her team for a second meeting. They discussed the portal design that is how the information should be organized. Mr Wan proposed several layouts. Dr Fatinah suggests that the portal interface should display the list of activities, events and announcements. "At least the latest or the top five...", highlight Dr Fatinah. Dr Zakiah sketches a layout on the white board. Finally they agree on a layout as shown in Figure 5.

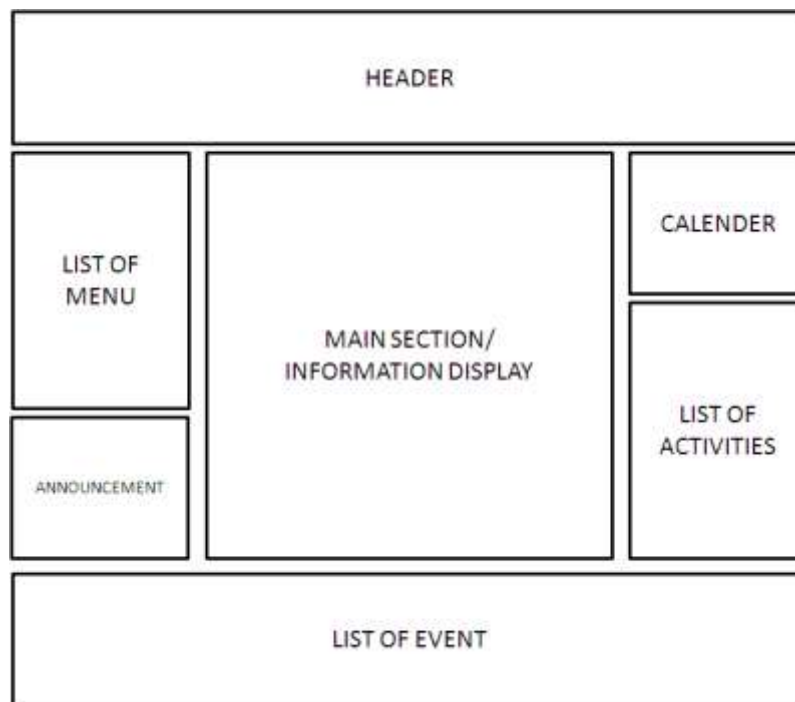


Figure 5: Knowledge Portal Layout

Once the layout has been furnished, Mr Wan proceeds with the portal development. Figure 6 shows the interface of knowledge portal. As in the layout, the interface consists of several information sections namely; SABC background, list of SIG, staff, student, activities and news achieves. The portal is link to a database that stores the information online. The specification of the database is shown in Appendix A. List of SIG, staff, activities, and news are retrieved from the database. In addition to the sections, three listings that are list of activities, news and announcement are also made available so that the school members can view the list once they open the main page. The lists are sorted according to the date.



Figure 6: Main Interface of Knowledge Portal

The use of database and information display interface through World Wide Web (WWW) and hypertext technology, enable the information to be store and retrieve systematically. Announcement about the school meeting for example can be posted on the portal. The information will remain in the portal until the date is expired or deleted by the administrator. If the meeting is to be postponed, the information in the portal can be updated as well. Hence, SABC can always refer to the portal to get the updated information.

The information in the portal can be updated by the staffs that are head of SIGs and school administrator. The main processes are shown in Figure 7 and the flow chart is shown in Appendix B.

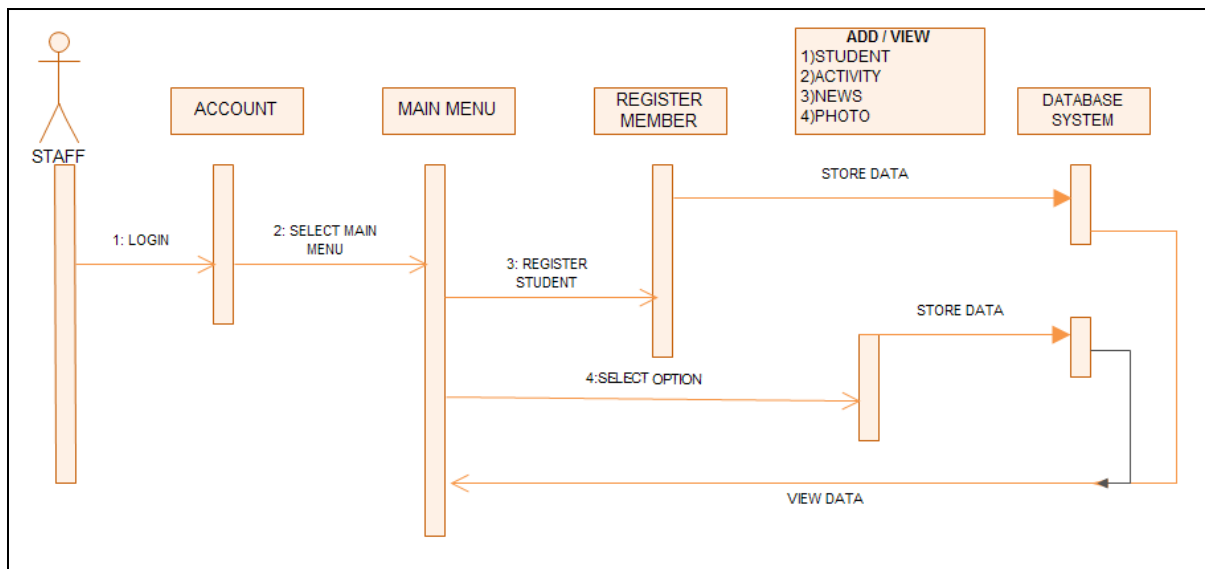


Figure 7: The Processes in Knowledge Portal

Each of the users is supplied with username and password. Figure 8 shows the login page for SIG and administrator. Figure 9 shows information entering interface for administrator and Figure 10 shows example of interface for SIG.



Figure 8: Login Page



Figure 9: Administrator Editing Page



Figure 10: SIG Editing Page

The portal has been tested by the main users that are administrator staff and head of SIGs. The feedbacks are positive. Overall, they satisfied with the portal. The administration pages are easy to

use. Most importantly, they can add, edit and delete the information. These three functions are not possible with the email system.

Finally, the knowledge portal was presented to the dean. Initially, he was happy with the portal. He also agrees that the school should start using the portal. SIGs should utilize the portal to share information and the administrator staff that is AR should use the announcement facility when making the announcement. "This time no more 'forget', no more 'don't know...' and no more 'when?'. All staffs should frequently refer the portal for the updates", stress dean Prof. Zulhilmi.

Case Problem

However, dean Prof. Zulhilmi wants the portal to be formally assessed. He calls you in to assess the portal. You are instructed to play a role as Assistant Registrar (AR) that is one of the portal main users. You are required to perform the assessment, run the analysis and write a report. In the report you are expected to propose some recommendation for future enhancement. Think over the situation and prepare two pages report on how you would present the assessment of the technology and explain the rationale for the improvement.

Later, Prof. Zulhilmi wants to enhance the portal by including new function to support a new user that is the committee. At this stage the portal only support two main users that are SIGs and administration staff. New function for the committee may replicate the existing functions and database structure. You are required to propose the new functions for the user committee together with the new database structure. Further, you have to decide either to create a new layout for the portal interface or to propose an amendment to existing layout.

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APPENDIX A

Database Specification

Database name: SIG

Num.	Table	Field
1	Activity	6
2	Admin	5
3	Announce	4
4	News	7
5	Register	8
6	Sigregister	7
7	Student	4

Tables

A. Activity

Num	Field	Type	Length	Extra
1	id	int	11	auto increment
2	act	text	default	
3	venue	text	default	
4	date	date	default	
5	report	text	default	
6	sig	text	default	

B. Admin

Num	Field	Type	Length	Extra
1	id	int	11	auto increment
2	name	text	default	
3	username	text	default	
4	password	text	default	
5	signame	text	default	

C. Announce

Num	Field	Type	Length	Extra
1	id	int	11	auto increment
2	ann	text	default	
3	date	date	default	
4	date2	date		current timestamp

D. News

Num	Field	Type	Length	Extra
1	id	int	11	auto increment
2	topic	text	default	
3	descp	text	default	
4	date	date	default	
5	report	text	default	
6	duedate	date	default	current timestamp
7	sig	text	default	

E. Register

Num	Field	Type	Length	Extra
1	id	int	11	auto increment
2	desg	text	default	
3	name	text	default	
4	staf_no	text	default	
5	room_no	text	default	
6	ofis_no	text	default	
7	hp_no	text	default	
8	sig	text	default	

F. Sigregister

Num	Field	Type	Length	Extra
1	id	int	11	auto increment
2	signame	text	default	
3	sigchair	text	default	
4	date	date	default	
5	descp	text	default	
6	username	text	default	
7	password	text	default	

G. Student

Num	Field	Type	Length	Extra
1	id	int	11	auto increment
2	studname	text	default	
3	matrik	text	default	
4	sig	text	default	

APPENDIX B

Flowchart of the process of Knowledge Portal

