

December 2004

# The Use of RAPAT in the Indonesian Culture: Case Studies at the Higher Education Institution

Sjarif Abdat  
*University of Indonesia*

Graham Pervan  
*Curtin University of Technology*

Follow this and additional works at: <http://aisel.aisnet.org/acis2004>

---

## Recommended Citation

Abdat, Sjarif and Pervan, Graham, "The Use of RAPAT in the Indonesian Culture: Case Studies at the Higher Education Institution" (2004). *ACIS 2004 Proceedings*. 98.  
<http://aisel.aisnet.org/acis2004/98>

This material is brought to you by the Australasian (ACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ACIS 2004 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# **The Use of RAPAT in the Indonesian Culture: Case Studies at the Higher Education Institution**

Sjarif Abdat  
Graham Pervan  
University of Indonesia  
Curtin University of Technology

Faculty of Computer Science  
University of Indonesia  
Jakarta, Indonesia  
Email: [sabdat@cs.ui.ac.id](mailto:sabdat@cs.ui.ac.id)

School of Information Systems  
Curtin University of Technology  
Perth, Western Australia  
Email: [pervang@cbs.curtin.edu.au](mailto:pervang@cbs.curtin.edu.au)

## **Abstract**

*Research about Group Support Systems and the design of these group support technologies is mainly based on western culture and takes little explicit account of other cultures. While the research reveals promising results on the effectiveness of these technologies, the research results and the technologies themselves may be less effective when applied directly to different cultures or cross-cultural situations. These cultures may require different forms or styles of group support. This paper summarizes some studies at a leading university in Indonesia using an asynchronous Group Support Systems facility developed by the authors, which has selective broadcast capability. Selective broadcast is specifically designed for Indonesian culture, which has relatively high power distance, low individualism, weak uncertainty avoidance, and high context. A combination of observation, survey and structured interview was used to collect information from the participants on how they adopt and use the systems for their group work as well as their perception of the group process and outcome.*

## **Keywords**

Group Support Systems, asynchronous communication, selective broadcast, meeting, and culture

## **INTRODUCTION**

In the era of widespread use of collaborative technology (often also called Group Support Systems or GSS), including team and small group activities, a number of studies have demonstrated the problems of implementing collaborative technology into workplaces. The major issues among others are a lack of critical mass, inappropriate expectation, as well as structural and cultural problems (Grudin 1994, Orlikowski 1993, and Watson et al. 1994).

Most of the research and development of collaborative technology has been conducted by North American organizations and universities using North American subjects. Basing this technology on the needs of western culture may lead to resistance and ineffectiveness when it is used in other national cultures. Therefore, GSS meeting designers need to be culturally sensitive and they have to match the tools and communication configuration of a GSS while at the same time meeting goals and cultural norms (Watson et al. 1994). Based on observation of Singaporean groups (Watson et al. 1994) they suggest that, "harmony might be enhanced by using a GSS to create a distributed meeting in which group members are physically separated and information exchange is asynchronous. In this case members can carefully assess others' opinions and weigh their thoughts before making a statement".

In the Indonesian Culture, which has *low individualism*, *high context*, and *high power distance* (Hofstede 1991), people prefer to arrive at major meetings with all details negotiated so that there are no surprises (which may lead to "loss of face"). The term of "loss of face", related to protecting your "face", is actually one of Confucian work dynamism (CCC 1987). These face-to-face meetings are usually attended by a large number of people, including many only loosely related to the task, which reflects the 'high collectivism' attitude of Indonesians where there is a conscious desire to get everyone involved (and is also related to high context). The result is usually already known because most of the work has been done before the meeting. In such a culture and resulting

process, Indonesians tend to pay more attention to the surrounding events of the meeting (Abdat and Pervan 1999).

RAPAT (Replicable Asynchronous Pre-meeting Application Templates) that has selective broadcast capability is specifically designed as an asynchronous GSS based on Indonesian cultural requirements to support the pre-meeting stage of strategy formulation. Selective broadcast is defined as the capability of group support systems to distribute information to specified members of a communication group (Abdat et al. 2000).

This paper presents the implementation of RAPAT at a leading university in Indonesia in a number of case studies, which have been used to support planning tasks at the various levels of organizational activities. The second section of this paper provides an overview of RAPAT, followed by the description of the case studies and results. The last section of this paper includes the discussion and conclusion.

## OVERVIEW OF RAPAT

### Background

Abdat and Pervan (1999) proposed a model using a basic meeting cycle to show how events surrounding a meeting are interrelated (see Figure 1). The proposed definitions for these events are as follows. **Meeting** is a group information process to achieve specific goals. **In-meeting** is a scheduled event in which all participants of the meeting have a possibility to do communication and interaction at the same time (synchronous).

**Pre-meetings** are unscheduled events in which subsets of the participants of the meeting are able to communicate and interact, either at the same time (synchronous) or different time (asynchronous) before In-meeting. The purpose of these activities may be to exchange information, discuss ideas, negotiate, and seek consensus before coming to the in-meeting.

**Post-meetings** are unscheduled events in which subsets of the participants of the meeting have a possibility to communicate and interact, either at the same time (synchronous) or different time (asynchronous) after the in-meeting. The purpose of these activities may be to clarify details from the “in-meeting”, and to organise and carry out the implementation of decisions made.

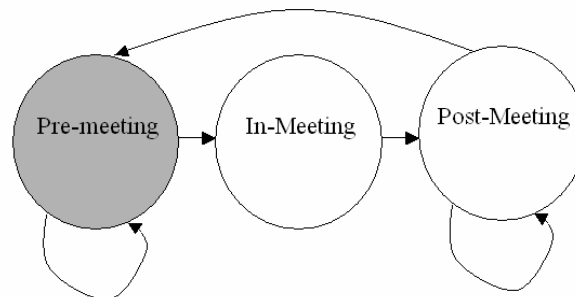


Fig. 1. Basic Meeting Cycle consists of pre-meeting, in-meeting and post-meeting.

At the pre-meeting and post-meeting stage the communication and interaction are not only between the participants of the “in-meeting” but may involve communication with other persons. In the discussions that follow, the “group” is synonymous with the “in-meeting participants”.

Several authors (Bostrom and Anson 1992, Oppenheim 1987, Schwartzman 1989, and Schwarz 1994) have discussed why pre-meetings are important. The pre-meeting provides participants with sufficient context and perspective about the tasks to be accomplished. Therefore participants come to meetings better prepared (Darr 1996). This is very relevant to the *high context* cultures. Moreover, there are relationships according to Hofstede (Hofstede 1991), in which *collectivism* (*low individualism*) tends to be *high context*.

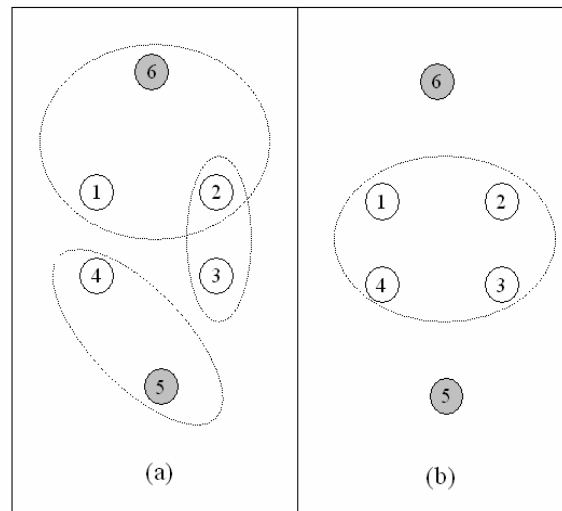


Fig. 2. A situation of four 'in-meeting' participants {1, 2, 3 and 4} and two other participants {5,6}. At the pre-meetings as shown in figure (a), there are three communication sub-groups and all of them are subsets of the communication group. In figure (b), the communication is only among the 'in-meeting' participants.

## Systems Description

RAPAT with its selective broadcast capability is specifically designed for the Indonesian culture. It was developed based on TeamRoom, which is one of the Domino application templates (Cole and Johnson 1996). Features of Domino include email, calendaring, discussion databases, document-databases, workflow and web integration. Application development can be undertaken making use of templates, a scripting language and programming languages such as Java.

As a Domino application RAPAT is protected by a comprehensive security via authentication, database access control lists (ACL) and field protection. The ACL contains seven categories of access; they are Manager, Designer, Editor, Author, Reader, Depositor and No Access. Every time a user accesses a RAPAT database, the username is compared against names in the ACL to determine what type of access the user has for that RAPAT database.

Domino operates in a client server environment and works on all of the common networks and operating systems. Support for mobile computing allows end users to work off-line and synchronise or replicate databases with servers when required. It is thus particularly suited to support participants who collaborate at different times and in different places during asynchronous pre-meetings (Abdat et al. 2000).

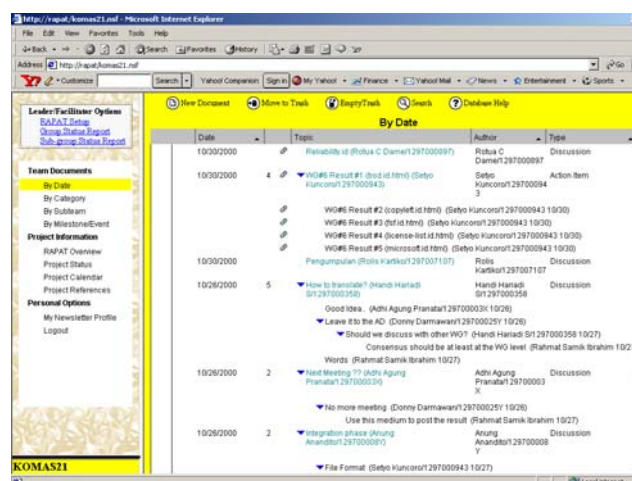


Fig. 3. Shows a full screen of RAPAT with the navigator display on the left, which indicates the user option and other facilitator option, if applicable.

The RAPAT system makes use of the Web based user interface; therefore it can be accessed over the Internet. The main user interface of RAPAT consists of two main frames as shown in figure 3. The left-frame serves as

the menu and control of the system and the right-frame as the display of the output of the interaction. The menu systems at the left-frame consist of the facilitator option and the user option. Facilitator options only appear if the systems identify the user having at least an Editor privilege to become a technical facilitator.

### Selective Broadcast

RAPAT has process support capability, namely selective broadcast, the capability of group support systems to distribute information to specified members of the group. Implementation of *selective broadcast* in RAPAT could be possible by making use of the Domino<sup>®</sup> standard messaging system which has the function to deliver information to specified users or groups defined on public address book or private address book and make use of readers field which is used to control reading rights to users that otherwise would be able to freely read a document. If the readers field exists and contains usernames, only users found within the field can read the document. Others, even if a user has Manager ACL privilege, will not be able to read the document if that user is not listed in the readers field for the document. This field refines ACL privileges.

Managing subgroup memory needs arising from *selective broadcast* could be possible by making use of the Domino<sup>®</sup> “views” feature. Views enable a summary selection of documents. The selection can be programmed based on fields and formulae. For example, a selected view of ingoing and outgoing communications could include one-to-one and one-to-many correspondences.

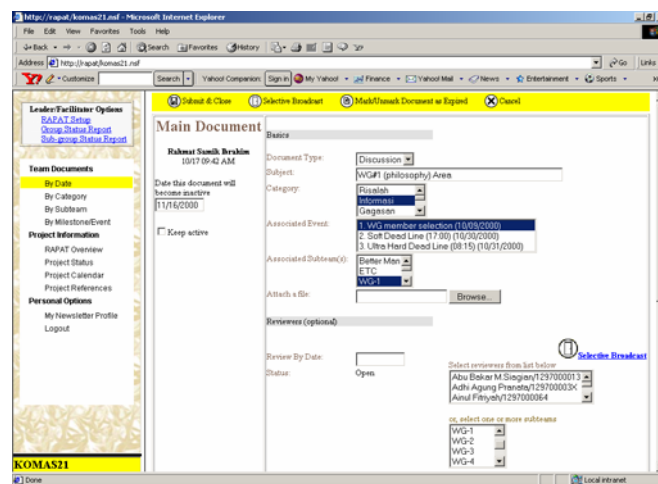


Fig. 4. Sample screen of RAPAT consists of selective broadcast option

RAPAT, along with the selective broadcast capability, could be used to reduce the negative effects of high power distance in Indonesian culture without using anonymity (Abdat and Pervan 2000) as well as at the knowledge creation stage of a knowledge management project (Abdat and Pervan 2000).

## RESEARCH SITE AND METHODOLOGY

### Research Site

The studies were conducted at one of the most established universities in Indonesia. This university offers Diploma to Doctoral degrees, with more than 39,000 students. The university consists of faculties spread over two campuses. Both campuses are connected through a campus network. The network infrastructure mostly uses fiber optic to connect the buildings and a microwave link is used to connect both campuses to the several Internet service providers.

### Case Summary

There were four case studies, namely OTONOMI, MTI, GDLN and KOMAS. The case study follows procedures as described by Yin (1993; 1994).

#### 1. The University Autonomy (OTONOMI)

The focus of this case study was on group work activities during the development of the university strategic plan. The university set up the autonomy team, which was chaired by the Vice-Rector for academic affairs. The team consisted of 12 members who were mostly senior academic staff, such as Dean, Vice-Dean, and Head of School within the university. They are divided into five sub-teams, namely Program, Commercial Venture,

Human Resource, Financial and Infrastructure. The team had been working since February 2000 and had been conducting regular meetings. This case study has been conducted from May until the end of October 2000.

## 2. Master of Information Technology (MTI)

The focus of this case study was on group work activities to find strategies on how to introduce distance-learning technology in the postgraduate program in information technology. The goal was to develop a strategy to accommodate off campus demands by delivering a similar quality of education without sacrificing the limited resources and quality of the program. The group consisted of 15 members who were academic staff of the program and was informally set up by the chairman of the program. The team had a group meeting once; the rest of the communication was through electronic media. The duration of the case study was less than 3 months from August to October 2000.

## 3. Global Distance Learning Network (GDLN)

The focus of this case study was on group work on how to set up and become part of the Global Distance Learning Network (GDLN). GDLN is a worldwide network that connects distance-learning centers (GDLN Centers) in cities across the globe, initiated by an international agency. The university set up the GDLN team, which was chaired by one the Deans. The team consisted of 10 members who were academics staff and mostly IT related within the university, and one of the members was from other university.

## 4. Computer and Society course (KOMAS)

The focus of this case study was to introduce RAPAT in a student group work assignment in the fourth year of an undergraduate course. There were 58 students registered in this course. The students decided the group formation, but the lecturer limited the size of the group between 4 and 9 members depending on the task they chose. There were eight tasks to be chosen by the group of the students, and each task had restrictions about the minimum and maximum number of students in the group. Finally seven groups were formed. In this case study the lecturer announcing the use of RAPAT as a mandatory tool on the group assignment. Each group had to finish their group assignments within one month.

## Implementation Procedures

The researcher followed standard implementation procedures to introduce RAPAT for use in the case studies. Although in some cases the sequence might be slightly changed or a procedure might be avoided due to the situation in the field, the procedures were executed mostly in the following order:

1. **Discussion with the team leader.** The main objective of this activity was to introduce RAPAT to the team leader; to discuss how to introduce RAPAT to the group; to gather as much information about the task as well as the way the group communicate and to get the message about their willingness to use RAPAT for the group work.
2. **Presentation at the group meeting.** The main objective of this activity was to present and to demonstrate RAPAT to the members of the whole group. This activity was conducted after receiving positive responses from the team leader.
3. **Promoting over the electronic media.** The main objective of this activity was to promote the use of RAPAT to the group members over alternate electronic media, which were usually used by the members. Email, Newsgroup and Egroup (now part of the Yahoo) were, among others, the most commonly used alternate electronic communication media.
4. **Creating a Trial database and user account.** The main objective of this activity was to create a trial database such that members could be able to try RAPAT prior to the groupwork. The initial content of the trial database consisted of the Home Page, Task and participants list. As this database would be used for conducting the private session the accounts were also created to make sure each member would be able to access the system. In this database, users were able to access the system to view and read the discussion without login. However, when the users wanted to create a new message or respond to the available message, they had to be identified by supplying user account and password.
5. **Private session with the facilitator/team leader.** The main objective of this activity was to assist one of the members becoming the technical facilitator of RAPAT. On the session with the facilitator, the researcher not only demonstrated the system, but also demonstrated how to manage the system. The private sessions with the facilitator could be arranged more than once.
6. **Private session with members of the group.** The main objective of this activity was to help members of the group to be able to use RAPAT for the groupwork. In this session the features and capabilities of RAPAT were demonstrated, and questions and answers were encouraged. It was possible to have private sessions with more than one member at the same time due to certain conditions.
7. **Set up database discussion.** The main objective of this activity was to set up a working database for the group work. This database was created similar to the trial database. This activity could be done together with the technical facilitator.

The following table summarizes the implementation procedures that were used on each of the four cases.

Table 1. Procedures Applied to the Cases

	<b>Case Study</b>			
<b>Procedures</b>	1	2	3	4
Procedure #1	Yes	Yes	Yes	Yes
Procedure #2	Yes	Yes	No	No
Procedure #3	No	No	No	Yes
Procedure #4	Yes	Yes	Yes	Yes
Procedure #5	No	Yes	Yes	Yes
Procedure #6	Yes	Yes	Yes	No
Procedure #7	Yes	Yes	Yes	Yes

### Data Collection

The data collection was conducted as soon as the case study was started in order to observe the use of the systems, by observing their behaviors, and logging the access to the systems. However, the final data collection from the users, including survey and interviews was taken four months after all the group tasks were finished.

The key questions of the survey and interviews were structured into two major items:

1. **The evaluation of RAPAT.** The questions on this item includes general assessments of the system such as ease of use and usefulness (Davis 1989) using the scale (1 Strongly Agree; 5 Strongly Disagree) as well as comparing RAPAT with the previous tools such as Email, Netnews and Egroups in term of group process and outcome (Davison and Vogel 2000) using the scale (Improved, Stayed about the same and Deteriorated).
2. **The evaluation of the case study.** The questions on this item include the barriers and strategies to overcome such barriers.

Most of the survey questions were answered individually prior to the interview session, except for the last case where the interview was taken several days after the survey.

## RESULTS

Some of the findings presented in this paper include general perceptions on the pre-meeting, the evaluation of RAPAT as well as the evaluation of the case studies, which includes barriers to implementations, and the strategies to overcome such situation.

### RAPAT Evaluation

Based on the interview questions to the users, when asked their opinion about the important reasons for conducting pre-meeting, they suggested the following:

- Generating/sharing both idea and opinions is the most common reason.
- Efficiency and effectiveness.
- Lobbying and convincing others.
- Focusing/Narrowing.
- Agenda preparation.
- Clarification.
- Detection and Synchronization.

Most of the users had been using other tools such as Email, Netnews and Egroups as their previous group support technologies. Their responses based on the interview questions on comparing RAPAT with the previous tools were:

1. The strengths of RAPAT among others are: more features, its view structure, the selective broadcast capability and the ability to retain the history of discussion thread.
2. The weaknesses of RAPAT include the complexity, the speed and lack integration with Email.

As RAPAT is designed to be an asynchronous collaborative technology, the major responses from the users when asked for additional features were the request to include chatting. It was suggested that they needed comprehensive features for both synchronous and asynchronous communication modes to support their activities.

The survey questions also asked the respondents about ease of use and usefulness. The results show that most of the users felt that RAPAT was easy to use (mean=2.41), easy to get what they want (mean=2.48), easy to learn (mean=2.10) and easy to master (mean=2.17). Unlike the ease of use where all of the responses for agreement were above 50%, in terms of usefulness only “useful for groupwork” (mean=2.17) got more than 50% of responses in agreement. The rest of the questions include “enhance their effectiveness” (mean=2.59), “increase their productivity” (mean=2.86) and “improve their performance” (mean=2.79). All had less than 50% on the agreement scale.

On the group process and outcome questions by comparing RAPAT with the previous tools, the results mostly show that they stayed about the same. Only in one question did it show that using RAPAT improved on their willingness to put forward in the group process.

According to the respondents the main benefits of using selective broadcast during the collaboration work were:

- Search of ally
- Mobilisation of supports
- Help to express the point of views
- To raise an issue and make it more mature
- Private communication
- To send Confidentiality/Authority information
- Filtering

Bias is one of the apparent impacts of the selective broadcast. The respondents also suggest that under specific conditions the use of selective broadcast during the collaboration work might create problems, such as the following conditions:

- When the information is public it might result in unequal distribution of public information or unfairness.
- When a member is included on selective broadcast but later excluded, it might cause distrust or bad feeling among others.
- When a selective broadcast involving private communication could be accidentally switched on to broadcast.
- The content may contain morally/ethically unacceptable comments (e.g. gossiping, making bad plan).

### **Case Studies Evaluation**

During the initial stage of the case studies implementation some problems and issues were identified, particularly related to the supporting infrastructure. RAPAT was installed on the server, which was only accessible from the campus network. There were some efforts to contact the authority to make the server accessible from outside of the campus network. However, until these studies were finished the users had access only from the campus network. This is one of the implementation barriers that were anticipated but unable to be solved.

The others barriers to the implementation were derived from the interview question, “why it is hard to get people to utilize it?” The responses to this question varied from case to case as shown in the following table. The responses were classified into three main categories, which were technological, cognitive and structural aspects.

Most of the technological barriers were reported from the fourth case, which had the highest participation rate. As all the users were students (except the facilitator) who were using accessing RAPAT from the student lab, most of them felt that there was lack of performance when accessing RAPAT.

Cognitive barriers, which include cultural aspects, were reported almost evenly on all cases. In all cases most of the users felt that using Email would be enough, unless RAPAT had better integration with Email as suggested as one of the strategies in the next table. Finally, the structural barriers were reported from the users mostly related to the lack of incentive besides there are so many alternatives are easily widely available and the limited time allocated for using RAPAT.

Table 2. Barriers to Implementation



	CASES			
	1	2	3	4
<b>TECHNOLOGICAL BARRIERS</b>				
Lack of Performance/Respond Time		X		X
Lack of Functionality/Push Notification/Reminder			X	X
Cannot be accessed outside the Campus				X
Confusing Respond/Appearance				X
Forgotten the Password				X
Lack of Supporting Infrastructure	X			
<b>COGNITIVE BARRIERS</b>				
Perception that using Email would be enough	X	X	X	X
Lack of Habit	X	X	X	
Unfamiliarity	X	X		X
Learning problem by over age participants	X		X	
Perception that would be better to talk directly		X		X
Various level of participants attitude towards IT Tools	X			
Perception that it can be handled by their secretary	X			
Different perception about discussion process			X	
Perception of meeting is gathering		X		
Less Socialization		X		
Reluctant				X
<b>STRUCTURAL BARRIERS</b>				
Lack of Reason/Reward/Benefit/Incentive to use it		X	X	X
Easier alternative/Meet in person		X		X
Not enough time/Busy	X			X
Difficult to contact others members				X
The introduction somehow in the middle of the work			X	
Temporary used			X	

Although it was not reported specifically as one of the barriers, the following comments from the user related to the low participation could be included as part of cognitive barriers. The potential cultural aspect that might cause to the low participation is related to the low individualism.

*Our culture is not too expressive. Therefore, even during the meeting, if the person was not asked there might be a silent. On RAPAT there is no such command to express, so that is silent.*

We also asked the respondents on strategies to overcome such situation. The following table shows the responds from each case and they were classified into technological, cognitive and structural aspects of the barriers.

Table 3. Strategies to Overcome the Barriers

	CASES			
	1	2	3	4
<b>TECHNOLOGICAL ASPECTS</b>				
Better Infrastructure/Accessibility	X		X	X
Better Integration with Email		X	X	X
Better Performance/Faster		X		X
Better Infrastructure/Bandwidth				X
Funding for better supporting Infrastructure	X			
Reducing Systems Complexity		X		
Better Functionality/Reminder/Notification as Profile setting			X	
Continuous improvements of the systems				X
The use of Native browser to accommodate the functionality				X
Authentication of user from the beginning				X
<b>COGNITIVE ASPECTS</b>				
Serious training and Exercises to use it	X	X		X
Introduction/Awareness/Socialization with Scenarios	X	X		
Continuous Exposure	X			
Need a person becoming provocateur to make it life and fun		X		
Somebody is responsible becoming as Process Facilitator			X	
One of the participants as an administrator				X
Personal approach from other members				X
Use it when the condition is necessary		X		
<b>STRUCTURAL ASPECTS</b>				
Enforcement and Commitment		X	X	
Leader use it as a role model			X	
Need some intervention	X			
Introduce the systems from the beginning of the project			X	

The strategies to overcome the barriers as shown in the table 3 are classified as technological, cognitive and structural aspects but they should not be viewed as one-to-one correspondences to the barriers as shown in the previous table. This indicates that there might be technological aspects to be improved to overcome the cognitive barriers.

Some key points on the technological aspects that both RAPAT functionality and the supporting infrastructure were equally important. Both of them were becoming major factors to reduce the implementation barriers. The strategies related to the cognitive aspects were to introduce more serious training and exercises involving scenarios. This result suggested that demonstrations to the members of the whole groups and private session would not be enough since these sessions mostly concentrate on functionality of RAPAT. There should be more time allocated to introduce RAPAT involving scenarios to be able to appreciate and make use of it.

On the structural aspects suggests that it would need enforcement and commitment as well as the leader as the role model by using it. In a high power distance culture, it may be possible to use a mandatory approach towards the adoption of technology, especially in this case of RAPAT implementation where so many alternatives are easily and widely available. Some of the related comments on suggesting mandatory approach on these case studies are as follows.

*Before becoming as habit, people must be enforced to use it, later they will get use to. Enforcement, for example if he/she doesn't use RAPAT he/she will not be able to catch up on meeting, or getting the latest information, finally he/she could not perform, could not showing his/her ability*

The following comments also suggest that besides the mandatory approach the leader must also provide a role model by actively using it.

*It could be, for example I am a Rector, we discuss about curriculum, all PD-I <Vice Dean for Academic Affairs> have their technical support, they all get access to RAPAT, from now on we use RAPAT. We only need to meet physically once a month, then the Rector also become a role model by actively using it, it will work.*

## CONCLUSION AND FUTURE WORK

The findings of this study suggest that the introduction of a collaborative technology will interact not only with cognitive and structural elements as described by Orlikowski (Orlikowski 1993), but also with the technological aspects. All of these aspects could become the barriers for the adoption, understanding and early use of the collaborative technology.

People tend to compare the new technology with their current tools, habits and their understanding of the new technology. Sometime they need to change their mental model to accommodate new technology. Some of the users of RAPAT already had experience and habits towards collaborative technology as they previously used Email, Netnews and Egroups for their communication tools outside the group meeting. In term of functionalities, RAPAT covers both Email and Netnews capabilities. However, it was really difficult to make the users use it. The effort to make RAPAT getting better integration with Email as well as comprehensive features of the communication tools such as chatting, notification using SMS (Short Message Service) and the utilization of WAP (Wireless Application Protocol) would be better support their activities.

While voluntary approach was used in other three cases, the exceptional case was KOMAS where the lecturer announced mandatory use of RAPAT. This case had the highest user participation rates over the other three cases. It was suggested that in high power distance culture such as Indonesia, mandatory approach along with incentive and rewards systems should be taken into account as the main part of the strategies.

In general, the findings provide insight for future research into the various elements that interact with and shape the adoption and early use of the collaborative technology in the Indonesian culture. The findings also have practical implications, indicating how and where such elements might be managed to more effectively implement collaborative technology in Indonesian organizations.

## REFERENCES

- Abdat, S., Atkinson, D. J. & Pervan, G. P. (2000) Selective Broadcast during Asynchronous Pre-meeting Stage of Strategy Formulation: A GSS Capability for Indonesian Culture. *33rd Hawaii International Conference on System Sciences*. Hawaii, IEEE Computer Society Press.
- Abdat, S. & Pervan, G. P. (1999) Development of RAPAT: Asynchronous GSS at the Pre-meeting Stages of Strategy Formulation for Indonesian Culture. *10th Australasian Conference on Information Systems*. Wellington, New Zealand.
- Abdat, S. & Pervan, G. P. (2000) Reducing the Negative Effects of Power Distance during Asynchronous Pre-meeting without using Anonymity in Indonesian Culture. IN SUDWEEKS, F. & ESS, C. (Eds.) *2nd International Conference on Cultural Attitudes Towards Technology and Communication*. Perth, Australia.
- Abdat, S. & Pervan, G. P. (2000) The Use of Selective Broadcast on RAPAT during the Asynchronous Pre-meeting: An example of a Knowledge Management Project. IN CARLSSON, S. A. A. L., B. G. (Ed.) *IFIP*

- TC8/WG8.3 *International Conference on Decision Support through Knowledge Management*. Stockholm, Sweden, IFIP.
- Bostrom, R. & Anson, R. (1992) The face-to-face Electronic Meeting: A Tutorial. IN BOSTROM, R., WATSON, R. & KINNEY, S. (Eds.) *Computer Augmented Teamwork: A Guided Tour*. New York, Van Nostrand Reinhold.
- CCC (1987) Chinese Values and the Search for Culture-Free Dimensions of Culture. *Journal of Cross-Cultural Psychology*, 18, 143-164.
- Cole, P. & Johnson, E. C. (1996) Lotus Development: Team Room - A Collaboration Workspace for Cross Functional Teams. IN LLOYD, P. & WHITEHEAD, R. (Eds.) *Transforming Organisations Through Groupware: Lotus Notes in Action*. London, Springer-Verlag.
- Darr, E. (1996) Australian Bureau of Statistics: Universal Adoption. IN LLOYD, P. & WHITEHEAD, R. (Eds.) *Transforming Organisations Through Groupware: Lotus Notes in action*. London; New York, Springer-Verlag.
- Davis, F. D. (1989) Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information technology. *MIS Quarterly*, 13, 319-340.
- Davison, R. M. & Vogel, D. R. (2000) Group support systems in Hong Kong: an action research project. *Information Systems Journal*, 10, 3-20.
- Grudin, J. (1994) Groupware and Social Dynamics: Eight challenges for Developers. *Communications of the ACM*, 37, 93-105.
- Hofstede, G. H. (1991) *Cultures and organizations: software of the mind*, London; New York, McGraw-Hill.
- Oppenheim, L. (1987) Making Meetings Matter: A Report to the 3M Corporation. Austin, TX, 3M Meeting Management Institute.
- Orlikowski, W. J. (1993) Learning from Notes: Organizational Issues in Groupware Implementation. *Information Society*, 9, 237-250.
- Schwartzman, H. B. (1989) *The Meeting: Gatherings in Organizations and Communities*, New York, Plenum Press.
- Schwarz, R. M. (1994) *The Skilled Facilitator: Practical Wisdom for Developing Effective Groups*, San Francisco, Jossey-Bass Publishers.
- Watson, R. T., Ho, T. H. & Raman, K. S. (1994) Culture - A Fourth Dimension of Group Support Systems. *Communications of the ACM*, 37, 44-55.
- Yin, R. K. (1993) *Applications of case study research*, Newbury Park, Calif., Sage Publications.
- Yin, R. K. (1994) *Case study research: design and methods*, Thousand Oaks, Sage Publications.

## COPYRIGHT

The following copyright statement with appropriate authors' names must be included at the end of the paper

[Sjarif Abdat and Graham Pervan] © 2004. The authors assign to ACIS and educational and non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant a non-exclusive licence to ACIS to publish this document in full in the Conference Papers and Proceedings. Those documents may be published on the World Wide Web, CD-ROM, in printed form, and on mirror sites on the World Wide Web. Any other usage is prohibited without the express permission of the authors.