The Open Access Initiative For Knowledge Sharing: the Conceptual Framework Approach

Wan Ahmad Rhiza' adni B Wan Abdul Aziz

Department of Information Science,
Faculty of Computer Science and Information Technology,
University of Malaya, Lembah Pantai , 50603 Kuala Lumpur,
Malaysia.

Department of Information Science,
Faculty of Science and Technology,
Universiti Sains Islam Malaysia.
e-mail: rhizaadni@gmail.com

Abstract

Purpose*: The purpose of this research is to provide the sharing community with an experience of OAI for knowledge sharing, which indirectly allows scholar community to be aware and be actively involved in OAI. The OAI would benefit the scholars who would be the publisher of research works and experience of sharing digital information.*

Design/methodology/approach*: Research methodology literature in the design of knowledge sharing, OAI and research projects convince the researcher that the use of multiple methods to gather data is a possible approach for the design, analyses and evaluation of scholar's participation of OAI.*

Findings*: This illustrated how framework is used as approach to define the OAI relates knowledge sharing. It highlights a detailed readiness knowledge sharing in OAI on framework. The perspective established from the framework in this study help to ensure OAI is relevant to scholar's attitudes. The Framework represents the views of the knowledge sharing, scholar and willingness of Malaysia scholar's participation of OAI in the research. The readiness focuses on the goal and objectives in the context to participate the OAI and the functional requirements of the willingness of Malaysia scholar's participation of OAI.*

Originality/Value*: Would be of significance in the field of knowledge sharing and the contexts of OAI are not usually captured comprehensively, and the ongoing challenge is to model complex human and the value of OAI and online publishing for their research works.*

Keywords*: Open access initiative; OAI research framework; OAI for knowledge sharing; OAI in education; Scholar needs; Malaysia*

Paper type*: Case study*

Framework for the OAI as the Knowledge Sharing

By understanding the framework, the researcher can help gain consent of acceptance scholars regarding readiness knowledge sharing in OAI. Literature emphasized the importance of a holistic approach to examine digital sharing such as OAI (Kankanhalli et al., 2005; Swan and Brown, 2005) as examining a single view of such as participation are likely to be limited in their usefulness**.** Tenopir (2009) discussed a perspective of OAI that is based on the work people do, and how OAI assist in the completion of research work related duties. Davenport and Prusak (1998) define knowledge as a "fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information". Alavi and Leidner (2001**)** presented a framework, consisting perspectives, includes knowledge about customers, knowledge about products, knowledge about processes, knowledge about competitors, and knowledge about business frameworks. Another holistic framework is presented by Bock et al. (2005) study theoretical framework. To this framework, they have added extrinsic motivators, social psychological forces and organizational climate factors. According to He et al. (2009) presented theoretical knowledge represents abstract knowledge and principles, which can be codified, or at least embedded in systems of rules and frameworks for action'. Shin et al. (2008) mention that explicit knowledge flows is often through IT projects including designing portals and intranets, and buildings various models and frameworks to represent knowledge flows in an organization. Regarding the theoretical frameworks used to find these factors.

Methodology

the methodology offers insight into methodologies used, and indicates that such methodologies are less than fully expanded. Research methodology literature in the design of knowledge sharing, OAI, attitudes and research projects convince the researcher that the use of multiple methods to gather data is a possible approach for the design, analyses and evaluation of scholar's participation of OAI.

Scholars involvement in OAI has been attract in the scholar communities and a focus knowledge sharing needs is essential in many studies. OAI in disseminate knowledge that focuses on the community being served people in knowledge sharing, reflection, and debate often attracting a large and dedicated readership. Teo and Pok (2003) suggestions to enhance their roles by making use of ICT in pushing the OAI agenda**.** Papachristopoulos et al. (2008) discussed needs participation and evaluation of OAI. They identified methodology to the necessary for OAI considered as a crucial attribute in advanced systems.

Kiran and Chia (2009) summarized the issues addressed by academic libraries. They identified the OAI valuable electronics service in the academics library. OAI in disseminate knowledge that focuses on the community being served medium supporting scholarly communication (Creaser, 2010). Tenopir (2009) discussed needs requirements and evaluation for the perceptions of repositories methodology to the necessary for OAI, a) the OAI with focus on needs, b) needs to the OAI and c) usability with the methods is a key factor for the OAI. Akilli (2007) conducted study of current and potential of OAI. Atkins et al. (2007) discussed the underlying information and communication technology (ICT): a) increasing awareness of OAI, b) usability of the OAI and c) usefulness of the OAI. A survey is simply a data collection tool for carrying out survey research. Pinsonneault and Kraemer (1993) defined a survey as a "means for gathering information about the characteristics, actions, or opinions of a large group of people" (p.77). Surveys can also be used to assess needs, evaluate demand, and examine impact (Salant and Dillman, 1994, p. 2).
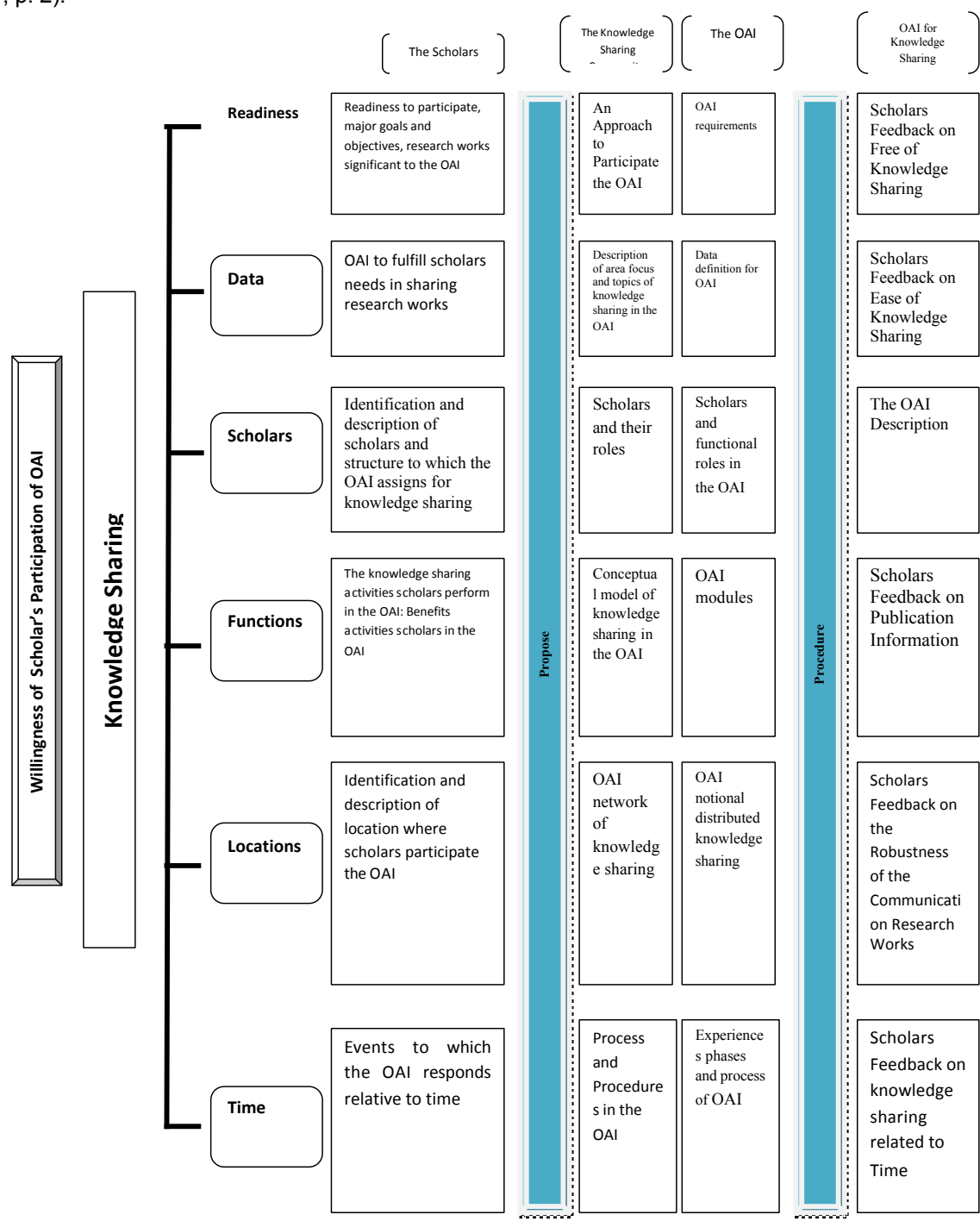
	The Scholars	The Knowledge Sharing	The OAI	OAI for Knowledge Sharing
Readiness	Readiness to participate, major goals and objectives, research works significant to the OAI	An Approach to Participate the OAI	OAI requirements	Scholars Feedback on Free of Knowledge Sharing
Data	OAI to fulfill scholars needs in sharing research works	Description of area focus and topics of knowledge sharing in the OAI	Data definition for OAI	Scholars Feedback on Ease of Knowledge Sharing
Scholars	Identification and description of scholars and structure to which the OAI assigns for knowledge sharing	Scholars and their roles	Scholars and functional roles in the OAI	The OAI Description
Functions	The knowledge sharing activities scholars perform in the OAI: Benefits activities scholars in the OAI	Conceptual model of knowledge sharing in the OAI	OAI modules	Scholars Feedback on Publication Information
Locations	Identification and description of location where scholars participate the OAI	OAI network of knowledge sharing	OAI notional distributed knowledge sharing	Scholars Feedback on the Robustness of the Communication Research Works
Time	Events to which the OAI responds relative to time	Process and Procedures in the OAI	Experiences phases and process of OAI	Scholars Feedback on knowledge sharing related to Time

Willingness of Scholar's Participation of OAI — Knowledge Sharing — Propose — Procedure

Figure 1:
The Requirement Knowledge Sharing in Willingness of OAI Model

The Scope of Question in the Framework

Framework establish of a mutual understanding among scholars in the OAI. The knowledge and understanding by answering the question what, how, where, who, when and why. By answering these questions it can improve to understand the factor the success the willingness in OAI. The understandings on OAI are formalized of knowledge sharing. When researcher doing this research, it is helpful to analysis knowledge sharing and OAI why scholar's need to be participated. And why OAI was closer to scholar and need to participate. The framework may help determine what scholar's model in order to participate of OAI. This framework provides information needed to make decision in order for successful to scholars to participate in OAI. In this

framework also the researcher learns how considers OAI from many perspectives.

By understanding the framework, the researcher can help gain consent of a scholars regarding OAI. The research is willingness of Malaysia scholar's participation in OAI. The cause and prevention of knowledge sharing involve the OAI. This researcher may say that may be useful in the development of knowledge sharing. The knowledge and understanding by answering the question what, how, where, who, when and why. By answering these questions can improve the success rate of readiness knowledge sharing in OAI. When researcher in the research, it is helpful to analysis OAI and knowledge sharing why things are done the way something is done. The framework helps determine what scholars are required through participation in OAI.

The framework illustrates these themes and shows technology professional how to organize, design and construct a solution for any type or size of problem. Framework consults a solution for any type or size of problem. In fact by using this framework it would like to know the detail of the issues of scholar's OAI in the future. This model presented as the systematic framework for the detailed presentation of this study.

Data
Data refers to the scholars use to share their research works. This includes theses and dissertations, teaching materials, journal articles, conference papers and etc. The data module, identifies the willingness in the participation of OAI, and concerns the quality, accuracy, usability, description and organization of the readiness in the OAI. Data gathering techniques for this module include a) critical analysis in view of the experience to participate of OAI. In this analysis these questionnaires related to "*What*" is referred for, a) survey question related to the research works contribution, b) document analysis of scholars research works, c) interview based on scholars to their research works.

Function
The function refers to the activities scholars make in research sharing, such as sharing information, sharing research resources, writing and presenting knowledge sharing reports. The function transfers to the issues of scholars or features of the OAI to be willing to participate. Statistics analysis gathering techniques to explore the function element include: a) survey question related to the purpose of OAI with benefits their research, b) focus group conduct of this study pioneer a systematic that sustained function of OAI, c) interview with scholars ascertaining scholars understanding of scholar attitudes when publishing research articles, as well as universities monitoring of the research works, reports and research articles, d) review of the purpose of OAI, f) evaluation knowledge sharing in OAI.

Scholars
The scholar concerns identification on participation of the OAI with considered very influential sharing research environments, their need and their satisfaction with sharing research. This questions element includes: a) interview with scholars to know their willingness on knowledge sharing, besides the commitments on that issue, b) the focus group with scholars to uncertainties issues of OAI, c) survey scholars to equip demographics (age, gender, race and etc), knowledge sharing and their view of commitment in participation of OAI.

Location
Location refers to the place of use and location where scholars are favourite of OA software, such as Dspace, Eprints, Fedora and Greenstone, a) survey question related to IR repository, b) focus group scholars probing further their access and knowledge sharing, c) interviews with the scholars ascertaining their access and knowledge sharing.

Time
Time refer to the knowledge sharing to which the scholars participation of OAI reacts relative to time. This implies that the time involved in make research articles available on the internet, such as publishing research articles, writing, submitting and etc. Dealing for this element includes, a) survey questions related to the knowledge sharing activities, b) focus group with scholars probing further on knowledge sharing activities, c) interview with scholars on the process and procedures related to the time for participation in OAI.

Readiness
Readiness refers to major goal within objective or approaches that are significant to the OAI relation to readiness. This include the readiness include to participate the OAI, willingness to participate in context of knowledge sharing and the success factors. Dealing for this element includes, a) survey question related scholar's readiness for gaining publication and perceptions of the OAI potential, their readiness and willing to participate and sharing research articles and their need and expectation of OAI, as well as understand their role in the OAI, b) focus group with the scholars probing their conception of OAI, their motivation for knowledge sharing and their perceptions of it potential, their behavior when share knowledge information, and their need and expectation of the OAI, c) interview with scholars to determine their willingness and readiness to participate in the OAI, their understanding of their role in OAI, d) evaluation of the knowledge sharing concerning its potential.

The Integrated Analysis of the OAI and Knowledge Sharing
The research plan developed to understand the provisions and environment that would ensure the reception of a participation of OAI for knowledge sharing to arrive at a holistic sight of the OAI and to address the research questions. The data collection and analysis procedures provide views of the OAI. The view allows the researcher, via survey, to examine scholar's willingness and readiness to participate in OAI building the scholar attitudes. At the focus group and interviews with the scholars provide insight into their understanding and expectation of the OAI. And at the content analysis of scholars identify and aspects of the OAI that

informed the viability of a useful and continuing participation of OAI. When combined and, utilizing approach to investigate the knowledge sharing requirements and define the OAI, the views allow the researcher to gain a holistic understanding of the aspects of the scholar's participation of OAI.

Readiness: Why the OAI is Needed

OAI is needed why (Readiness) describe the readiness of the scholars and the OAI that support the knowledge sharing. Therefore to cater for their attitude needs, the content available through OAI as presented in Figure 1. This reveals the reasonable the OAI, as well as the establishment of knowledge sharing. the scholars concern the Why finding from the survey and focus group interviews help educational community in this case study is ready to participate the OAI and readiness scholars this support the OAI are as follow :

OAI readiness about indicated being not ready by the following findings:

OAI readiness as indicated by scholar's open access usage: The findings indicated that scholars are ready to participate the OAI as use open access is high (34.2%, 114) and all respondents in the sample indicate having use open access. A high majority (70.8%, 234) has participate to the knowledge sharing activity. The scholars indicated not participate of OAI. The scholars in this survey can be described as "not knowledge sharing-sense" many of these scholars have not willing in OAI. A total of 51.1% (170) have an open access usage experience of about 1 year, whereas 14.1% (47) have about 2 years. The scholars are also frequent users of the open access ($\bar{x}\,\bar{x}$ = 3.05; σ = 1.09) with 49.2% (164) at least once a week, 9.9% (33) at least once a month and 13.2% (44) others. Scholars state that their reason for participation of OAI, and that is the location they most frequently participate of the OAI. This equated to about Dspace 235 (74.4%) of the total respondents having participate to the OAI.

OAI readiness as indicated by scholar's awareness of OAI and proffered for knowledge sharing: The surveys indicated that high proportion of scholars experience with OAI, participate them extensively and are relatively well providing in term of sharing of the knowledge. Overall there is a strong preference for knowledge sharing. This preference by the easy of knowledge sharing, as indicate by a few scholars who wrote that OAI are the best option for fast publication information. However, scholar's participation of OAI is limited to only specific subjects as many scholars are not aware of the OAI as well as their attitudes.

Suitability to participate the OAI as by high response of scholars who feel that there is a need for OAI and this would definitely benefit them: OAI have been accepted in a very favorable way by the scholars, even though many do not know what a OAI is. They perceive OAI as useful. In the survey, it was apparent that scholar's concerns and priorities were centered around getting the relevant information and participating in the OAI community as content knowledge sharing. The main findings of the scholars study revealed the need for knowledge sharing and publishing research articles in the OAI, as well as the need for a community developed research findings. The survey revealed that some scholars not only desired the OAI where they could share information resources for research works but also were also willing to be design scholar attitudes and being part of the community within which they could contribute knowledge information and communicate with others.

Universities support-as indicated by the universities as indicated by the university comprehensive plan for the participation of OAI-mediated knowledge sharing in education followings: This plan includes the vision, mission, values, objectives, and timeframe of the OAI. The plan, initiated by the university, also the appropriation budget by the government, to cover costs related to publication, connectivity and upgrading of the university research works and development of educational research. The clearly delineates the purpose of OAI-mediated knowledge sharing, in term of open education, open access and open research models.

Knowledge sharing readiness related to research work requirements for OAI-mediated education: Interviews with scholars, as well as evidence from observation indicated the followings: (i) the university has met the requirements for OAI-mediated education, in terms of delivery service, technical development and research on the efficacy of open access dissemination; (ii) OAI envisaged that by creating open and free access journals, both the researchers and scientists would benefit enormously; (iii) the OAI is to create metadata and store them in their respective servers to enable others access them; (iv) the university has developed a plan for the OAI; and (v) the knowledge sharing and the OAI (such as research findings freely available on the internet) has been communicated to scholars in make research articles in OAI.

Based on these considerations, it is implicit that the scholars is ready to participate of the OAI   as it has the supporting knowledge sharing environment, as well as willingness from scholars to act as potential scholars to develop research works. On the other hand, some scholars indicate that the Malaysia scholars this sample is not fully ready to participate of the OAI. The reasons are summarized below:

(a) Scholar's participation of OAI capability is limited and their comfort level to share knowledge is low;

(b) The degree scholars embrace knowledge sharing and change is participated as the scholars have no clear direction on how to integrate the OAI into their research works;

 (c) Some scholars are not aware of the existence of the OAI.

However, the scholars are taking an interest searching information in the repositories, and they are negatives in their judgments of the OAI. They see the value of OAI and online publishing for their research works. Although some of them are not aware of OAI before, they give the impression to have an idea what a benefit of OAI was. They expressed willingness to play the role as a researcher in the OAI.

The Knowledge Sharing Community to Participate the OAI

Accessing the problems encountered by scholars in knowledge sharing, as had been highlighted by the scholars in the sample, makes it possible to formulate a new model for make research articles available on the internet and sharing resources. The OAI is modeled to focus on scholar needs in knowledge sharing. As such, the use of the OAI would be an essential part of knowledge sharing activities. Scholars should be enabled to share research works, create and publish their own research works in the OAI and share them with others. In this case, scholars should be allowed to create and submit their research works in the OAI. They are the content researchers of the digital sharing. Before, research works are written and submitted in paper or book, the OAI may move the scholar community towards an emerging genre of digital sharing. Thus, as time moves forward, it is more and more common for scholars to prepare their research works could be digitized and published in the network. With respect to end user access using the IR repository, they may search the contents, retrieve collections of search results, an play the contents of result items consisting of multiple media resources.

Scholars would be given the opportunity to develop their knowledge by validating the quality of submissions to maintain content quality of the research works, projects and add links to other IR repository. Pedagogical relevance is a function largely of the skill of the scholars that use the OAI. The scholars may also play the role of content researchers. They will create new knowledge collections of digital sharing and make this available in the OAI. Sharing to information means being able to share for information. They will create and sharing of knowledge directly affects new approaching, discoveries and developments. The knowledge to be free (Figure 2), which is consistent with the knowledge sharing, is based up on the works of scholars. The scholar shares an interest to ensure that the OAI respond to their needs and interests, as indicated by the one scholar, "I have no objections to OAI as long as it instills interests and fulfills scholar's needs". The scholar also perceives the following benefits in the participation of OAI.

Figure 2:
An Approach to Participate the OAI

The Knowledge Sharing Community to Participate the OAI

Scholars may be aided to carry out their own literature review, and may have an easier time getting oriented to the related knowledge sharing, since they can share information and understand the level of improve the research uptake, collaboration and knowledge sharing among researchers in Malaysia. The good work of scholars can be positively platform to the whole nation, and scholar's research becomes much more accessible. Whereas research works are typically read by anyone who uses the Internet. Given the asset of time and effort by the scholars, and the universities support that they receive over research works, it

is clearly sensible to influence that asset by making scholar work accessible. The OAI can be a focus of sharing innovation for educational digital sharing of ICT resources. Scholars can be easily managed in terms of repository, preservation, organization and access.

OAI Requirement

Using data from the survey, interviews and review of participating OAI, the researcher develops the compulsory purposes requirement of the OAI expressed as willingness objectives to populate the Readiness (Why). Specifically the objectives of the participation of OAI are to:

(a) Enable scholars to share research works, by access to the internet, regarding the topics they are researching. From the scholar's point of view, the sharing information can be obtained at the same time and from the same place as when it is participated.

(b) Allow scholars to progression and organize their research works in various presentations and submit the report as well as other resources in various formats, in order to create materials for publication in the OAI.

(c) Provide scholars the experience of publishing their research works. This condition enables scholars to share their work with a wider audience and it creates different readiness and expectations for scholars in publishing their works.

(d) Allow scholars to validate the appropriateness of submissions to maintain content quality of the research works.

(e) Enable the scholars to share metadata. The OAI also enables automatic sharing metadata generation for file types, format and file size. Enable scholars to register as members of the IR repositories. The OAI also dflows scholars to edit and update their research work if necessary.

(f) Provide different levels of research works to different types of scholars, based on their expertise.

(g) Acquire scholar's feedback, submission and description of other useful research resources in various formats, as well as links to other useful resources found in the Internet.

Provide and sharing discussions on any issues related to research works.

Encourage scholars in participanting the OAI for knowledge sharing.

Allow authorized to view, add, modify or delete, if necessary the collections and knowledge sharing in the OAI.

The formulation of the OAI objectives helps the researcher in describe of the scholar requirement and successively detailed definitions of the scholar attitudes.

Data: What Represents the OAI?

What (Data) describes the OAI to carry out the knowledge sharing. The data research, at the OAI identifies the knowledge sharing concerned the collections, quality, accuracy, attitudes, usability, description and university of the academic work in the OAI.

Types of Knowledge Sharing

The identification and portrayal of the OAI that concern the knowledge sharing and affect its direction and purpose to fulfill scholars attitudes needs in sharing research works. The survey indicates that high amounts of scholars feel comfortable with use them substantially, to read, download, copy, distribute, print, search, or link to the full texts of these articles are relatively well equipped to share the information resources. The most popular OA Software used are Dspace (235, 74.4%), and others (177, 56.0%). research articles analysis of scholar's regression analysis summary for variables predicting knowledge sharing confirmed the various institutional repositories for their publication information. These benefits are:

OAI is created for knowledge sharing. This includes sharing type documents and OAI that are accessible and at the same time will ideally form part of a global system of distributed, interoperable repositories that provide the foundation for a new disaggregated model of scholarly publishing.

Link to knowledge sharing relevant to the OAI such as makes it possible for researchers to make their research output like scholarly articles freely available to the public.

Digitized research works for wide dissemination and access to research and scholarly output is desirable so that subsequent works can be informed by the earlier works of others.

As scholars are willing to participate the OAI in the form of the knowledge sharing, the OAI also integrates this knowledge sharing either freeing scholarly articles from unnecessary barriers and restrictions of access. As such, the content of the OAI will result from the publication of scholar research works. The OAI driven by a set of inter-operability standards called the Open Access Initiatives Protocol for Metadata Harvesting (OAI-PMH), which allows the scholars to create metadata and store them in their respective servers to enable others access them.

Knowledge Sharing, Content and Research Works Criteria

The important goal of OAI is to create a collection of freely available, difficult-to access, academically-oriented digital resources that are easily searchable by anyone. OAI concentrates mainly on consolidating the institutional repositories and reveal the contents which adhere to the OAI-PMH standards.

The scholars interviewed emphasized the scholar has not been able to afford the long-term commitment to OAI. Most of the scholars that depend on their archives for research could not enthusiastically support the online version of journals only because of the digital archiving uncertainties. Based on analysis of the scholar's feedback, the OAI scoped (Figure 3) as follows:

The OAI is intended to meet the knowledge sharing.

These initiatives are driven by a set of standards called the Open Access Initiatives Protocol for Metadata Harvesting (OAI-PMH), which allows the scholars to create metadata and store them in their respective servers to enable others access them. The idea behind the OAI-PMH standards is to provide comprehensive metadata harvesting from sharing knowledge (http://dublincore.org/documents/usageguide).

OAI that may be useful for the knowledge sharing.

In such education environments, scholars need to establish their status as experts in an organization. One of the ways to establish this status is to share their professional knowledge with their colleagues (Ardichvili et al., 2006). When scholars share useful knowledge, it will cause them to gain colleagues' respect, enhancing their personal image in the universities.

Research works and others materials in OAI help support the knowledge sharing.

The search interface provided on this site is very exhaustive, and helps the researcher to narrow down their sharing in a screen, with provisions for storing and retrieving sharing. BioMed central also offers a good Table of Contents to keep its users informed as and when a new journal issue is included in its server.

Time

The OAI made the publications that are generally readily available and freely open to the scholars. In the OAI environment, there will be a multitude of researchers representing a variety of expert who will try to capitalise on electronic publications for their research works. In the current OAI environment, there seems to be many duplicate share results resulting from multiple postings of same articles in different repositories and websites.

Location

The research works in the OAI to provide free access to research and scholarly output to people irrespective of their physical or geographical location, or their social and economic means.

Diversity

The OAI reflect cultural scholar's community.

Identified the formal cultural dimensions that are supportive of OAI as solidarity, sociability, education-oriented, need knowledge for achievement and collectivism.

Categorized cultural dimensions of OAI to be fairness, innovativeness, and affiliation. Fairness is the perception that knowledge sharing practices are presently. Fairness builds trust among the scholar's and of the organization and motivates scholars to bring to stand pro-social behaviour in knowledge sharing. Innovativeness is the perception that creativity and knowledge sharing are highly valued.

The OAI provides positive reputation and the role of scholar responsibilities.

Figure 3:
Scope, Content and Research Works Criteria of the OAI for Knowledge Sharing

OAI is Free

OAI have played a transformative role in the process of sharing data collection, sharing analysis of results, report preparation, peer-review, and publication and finally the dissemination of research works. With the OAI much of the process is scholarly communication, the decrease in cost has been felt the real cost of the publishing. The fact that the intellectual product has been given away by its authors as free cost for publishing and distributing their research works, the traditional scholarly communication model which has been very slow to accommodate the needs of scholar. That provided as a movement for the development of research works. There exist free and open source software to set up institutional repositories and open access

journals. Besides, installation, customization, and maintenance of institutional repositories and open access journals entails significant amount of sharing resources. These costs therefore provide sustainable open access services.

Scholars: Who Participate the OAI?

Scholars: represents the scholars within the OAI for their participation and performance. Scholars describe the "researcher" to which the assigns responsibility for knowledge sharing. In the OAI context, "researcher" are the scholars who make research articles available on the internet. Thus, this concerns the publishing of scholarly and/or scientific works, and is intended to reflect a balance between the rights of the Author and the Publisher.

Scholar's Characteristics

The characteristics summary statistics of the study participants are presented in scholar's profile. The greatest number of responses came from the UPM. 79.3% (264) and about 34% (102) were the male. The age categories from 26-35 and over were over represented for the majority of the scholars (48.0%) in study. In study measured objective of OAI determining in knowledge sharing found in section of Appendix A. Measuring objective of OAI implies measuring what scholars actually knows and the "OAI" can be measured as a set of knowledge sharing.

Functions: What Impacts the Scholars in OAI?

How defines the purposes or publication information activities, the OAI is concerned about knowledge sharing to each perspectives. The purposes of OAI refer to the publication activities of scholars perform in their research works and play a major role in validating research results. With the success of OAI, more and more publishers have been convinced to allow self-archiving by the authors of the articles (Figure 4).

Figure 4:
Scholars and Functional Roles in the OAI

Analyzing Activities to Establish Scholar Requirements

Scholar requirements indicates the knowledge sharing activities, which include the knowledge sharing process (from recognizing the scholars need for sharing information to publishing, contributing and presenting it) and the submission and evaluation of the research works. It focuses on relations between the scholars and knowledge sharing. The survey and interviews help establish scholar requirements. Scholars interviewed said the knowledge sharing activity should be more than simply publication. It should cover "By successfully creating working models of free and open access journals covering all disciplines, it will prove that this will be a clear solution to the existing shortcomings of the current publishing monopoly" (Anbu, 2008).

Basically, the scholars in this research do wide dissemination of research results are vital for validating these results and thereby advancing the field of knowledge. However, a naive way of knowledge sharing emerged through the empirical study. Instead of being a knowledge sharing, it manifests itself in the form of scholar attitudes. Their problems are most of the time related with knowledge sharing. Since the knowledge sharing activities are focused on make research articles available on the internet, such important phases as to provide comprehensive and uniform visibility for research, are often neglected. This was also supported by the scholars in this sample who indicated that difficulties in make research articles available on the internet and very few scholars really willing participation of OAI. Derived from the description of the activities, scholars could be able to complete the following activities in the OAI:

Scholars in general make research works (perform knowledge sharing). The features have to be supported by the participation of OAI. This would mean that scholars should be able to be accessible by many people, in one way they are letting them self for

criticism.. The system is knowledge sharing mechanisms to channel it from creators to users. It also calls for a scholarly communication model where free flow of knowledge takes place.

(b) Scholars should be able to perform quality research works through the OAI. The survey found that scholars are very familiar with internet, they employed few search information. Results are presented in a clean approach with a brief description of the OAI for knowledge sharing.

(c) Scholars interact with other experts, through discussion, or other scholars via emails, especially when they have a unclear idea of the research information they are looking for or have difficulties in formulating specific research works. The research found that they often consulted with other experts to get references at the research topic.

(d) Scholars organize, prepare and submit their research works. Scholars may add and modify research works and being able to click on links and buttons and fill ups in forms. Scholars prepare the locations remaining to the correct format.

(e) Scholars share other relevant and accurate information through linkages to other scholars; guides on how to write good research works and guides on how to make reference to each source used.

(f) Scholars share information on how values the OAI. Scholar's research works is important throughout the OAI and be easy to use by readers.

(g) University makes sure scholars progress from time to time and keep track of scholars who have sharing the knowledge and those who have not.

(h) University evaluates and marks their scholar's research works, and give the grades to scholars once the research works have been evaluate.

Locations: Where the Scholars Participate in the OAI

Where show the sites location and connection between knowledge sharing activities (made research articles) within OAI. The perspective of the OAI as knowledge sharing with helps to maximize research impact through increased visibility. OAI therefore require a viable plan and allocation of resources. There exist free and open source software to set up institutional repositories and open access journals. Besides, installation, customization, and maintenance of institutional repositories and openaccess journals lead to significant amount of resources. These costs therefore need to be acquired, allocated and used in order to provide sustainable open access services. The OAI make research articles in all academic fields freely available on the internet. It was imagined that by creating open and free access journals, both the researchers and scientists would benefit vastly. In general the OAI are not cost-free and running a journal is a full time commitment for universities hence it requires a strategic plan of action and distribution of resources. These models are however the fastest ways to achieve the goal of scholar attitudes. Nonetheless, financial, technical, and social challenges remain for OAI of the strategies.

The scholar's make research articles available on the OAI would be able to provide the long-term commitment to digital preservation and archiving. These new publishing models are not envisaged to change the current publishing model, but to (i) provide a complimentary role by reforming the uncertainties of the current scholarly communication; (ii) re-assert control over scholarship by the academia; (iii) increase the visibility of researchers; (iv) provide uniform visibility of research; and, above all (v) decrease monopoly by certain core group of publishers and scholars.

Research universities is the content of research works and experts of make research articles in all academic fields and other potential future of knowledge sharing, scholars would be able to utilize research works through OAI. This demands a robust and reliable means of knowledge sharing, as such, there has to be outlets to publish and disseminate their research results. With the achievement of OAI, more and more publishers have been convinced to allow self-archiving by the authors of the articles. The research works may be utilized by scholars in the immediately and will enable publish in different areas (Figure 5).

Figure 5:
Identification and Description of Scholars and Universities to Which the OAI Assigns Responsibility for Knowledge Sharing

The conceptual model of "Where" as perceived by the scholars (from Ukm and Upm) include the location of knowledge sharing and place where the scholars participate the OAI. The OAI is easy to get to institutionally produced research results (including peer-reviewed conference proceedings) and open access journals (setting-up and running an online journal which is free and open access). The knowledge sharing is available anytime (*see* 7.1), whereas the tradition publication are accessible only during operating hours or with permission of the current publishing monopoly. The OAI, which is free and open and, at the same time, reliable and qualitative in nature. Scholars, on the other hand, may make research articles available on the internet from any locations in the IR repository, as digital sharing there are connected to the network (Figure 6).

Figure 6:
The Network Location of OAI

From the researcher perspective, presents which shows OAI supporting the knowledge sharing and provide access through subscription to the academic and research community. The researchers not only have started introducing more journals on various disciplines but also started taking over the journals from the professional and learned societies.

To achieve the goal of open access to scholarly journal literature, they recommend two complementary strategies: self-archiving and OA journals. Taking in to consideration that peer reviewed articles are given away by authors without expectation of payment, the BOI called for free and unrestricted access to peer-reviewed literature. The new technological applications such as data mining, grid computing, eScience and international collaboration in virtual space enabled collaboration and scientific undertakings easier. The OAI is accessible an institution's intellectual capital and at the same time they will ideally form part of a global system of distributed, interoperable repositories that provide the foundation for a new disaggregated model of scholarly publishing. However, the researcher has identified four primary location of OAI for the scholars: Dspace, Eprints, Fedora and Greenstone. Scholars, on the other hand, may participate the OAI from any different locations in the IR, as all digital sharing there are connected to the network. From the knowledge sharing perspective, framework presents models could foster and support knowledge sharing and collaboration among researchers. The distributed research works is presented in Figure 7, which shows OAI supporting the establishment of knowledge sharing systems for peer review of open educational resources.

Figure 7:
Indicating How Research Works is Distributed

Time: When Scholars Participate the OAI?

Time: "When" represents time, or the occasions to which the OAI in comparative to time. This is useful for a scholar who has had a good experience obtaining useful information from the OAI in an efficient way is likely to return and tell others about it. This will also further encourage users to become contributors to OAI. As has been described in the Goals and Objectives, the OAI provides uniform visibility of knowledge sharing. As the OAI is available 24 hours a day, submitted research articles to the OAI will not be constrained by time limits.

In the detailed model of the knowledge sharing model, the time defines when activities or make research articles available on the internet are to occur. Researcher strongly believes that the OAI by the majority of scholars do not ready for the OAI. Many universities do not have proper plans for OAI. Scholars suggests that OAI as a model for knowledge sharing should be clearly presented to scholars so that they can participate where their institution stands comparing to other academic institutions in the world. The OAI for knowledge sharing: knowledge sharing is given away by authors without expectation of payment.

Other Suggestions

The survey solicits scholar's feedback on how to improve the readiness knowledge sharing in OAI so that it could accept. There were categories of recommendations, which the researcher rated as high precedence, and scholars should be able to support OAI in future. There was a consistent request for a way for the scholar's to share knowledge. Scholar's suggested more support should be provided apart from interviews. Scholars would like to have discussion board to knowledge sharing and problems and make research articles regarding attitudes, research works and information problems, with university. This call for more knowledge sharing features that require attitudes for scholars with common interests to provide comprehensive and uniform visibility for make research articles in OAI.

The suggestion was that scholars would like to write comments, or view comments or feedback regarding their participation of OAI. This requires scholars to be able to share research works directly on the internet. Interviews analysis of scholar's project indicates the need for the OAI where research works can be highlighted or commented by universities, so that the OAI does not perpetuate in future. However, the need for this attitude did not surface during the survey and interviews. This would be a feature for future enhancement. Table 1 details the scholar's suggestions leading to the need for OAI to have support for the knowledge sharing.

Table 1:
Articulated not needed for OAI

On the not needed to share knowledge	On the not needed to participate in OAI
Not directly meaningful	Not able to tell the difference between an OAI and a subscription-based electronic journal
Individualistic cultures do not give much importance to group enhancing behavior	Some of them may not have realized the existence of OAI
Value in the exchange behavior is not clearly defined	Most scholars complained that they are not familiar with OAI
Not have the means to share knowledge	Scholars are afraid that their scholarly careers can be negatively affected if they keep publishing articles in these journals
The lack of motivation	
Attitudes of conflict avoidance and some conservative habits may prevent the sharing of knowledge	Not everyone felt that it is important
Bureaucratic and hierarchical organizations	Not provide an incentive for future contribution among many scholars
A lack of alliance between the personal intents of the individuals and the paradigms of the organization	

Summary of Chapter Eight

This illustrated how framework is used as approach to investigate the scholar attitudes requirements and define the OAI relates knowledge sharing. It highlights a detailed readiness knowledge sharing in OAI on framework. The perspective established from the framework in this study help to ensure OAI is relevant to scholar's attitudes. The Framework represents the views of the knowledge sharing, scholar and attitudes of the willingness of Malaysia scholar's participation of OAI in the research. The readiness focuses on the goal and objectives in the context to participate the OAI and the functional requirements of the willingness of Malaysia scholar's participation of OAI. The data focus the types of research works, sharing documents and scholar criteria, as well as the description and publication of the research works. The scholars represent the scholars who participation of OAI. These identify the authors and the research works organization, status of scholars and their perspective roles, as well as their roles in the knowledge sharing. The process illustrate the activities scholars perform in the OAI, the conceptual model of knowledge sharing in OAI derived from the activities involved and the scholar modules. The network describes the sites or IR repository locations and the relations between knowledge sharing activities within the OAI. The scholars perspective describe scholars have been consistently concerned with the prestige of such journals and their peer review, which is not the case in practice. The knowledge sharing community perspectives that explain the scholar's hindrance to the access and sharing of knowledge directly affects new insights, discoveries and developments. The OAI perspective illustrates of attempts make research findings freely available on the internet. The Time at the scholar describes the experience and publication of OAI, at the knowledge sharing community level describes the chronology of experiences indicating the processes that take place in the OAI, and at the OAI the processes in the make research articles available on the internet, which cause specific sharing data and knowledge sharing to take place. Framework perspectives portray the knowledge sharing positioning the OAI for knowledge sharing, which is the result of the scholar attitudes. It represents what the scholars have in mind for participation of OAI. It integrates scholar's survey of the OAI prototype to evaluate the viability of a useful and willingness of OAI for knowledge sharing and shows that the readiness to participate, major goals and objectives, willingness to share knowledge and the scholar requirements set in the willingness of the Framework. As OAI known as knowledge sharing more to show capabilities and to serve research communities as has been reflected by the positive feedback on make research articles in all academic fields freely available on the internet. The scholars considered themselves competent to make research articles. The scholar's feedback on the Publication Information of the OAI, analysis on item statements from the questionnaire indicates that the scholars liked the ease of sharing the information for their research works. Scholars understand how the OAI benefits. Although the scholars were faced with difficulties make research articles available on the OAI, observations and interview indicated that they felt satisfied upon making their research works, in which they were get information and that are easily searchable by anyone.

REFERENCES

Akilli, G. K. (2007). Games and simulation: A new approach for education? In Gibson, D. Aldridge, C. and Prensky, M. (eds.). *Games and simulations in online learning: Research and development frameworks.* Hershey, PA: Information Science Publishing. 1-20.

Alavi, M. and Leidner, D. E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly.* **25(1)**. 107-136.

Anbu, J. P. (2008). *Institutional repositories: Time for African universities to consolidate the digital divide.* Available at: http://www.ascleiden.nl/Pdf/elecpublconfanbu.pdf

Ardichvili, A., Maurer, M., Li, W., Wentling, T. and Stuedemann, R. (2006). Cultural influences on knowledge sharing through online communities of practice. *Journal of Knowledge Management.* **10 (1)**. 94 -107

Atkins, D. E., Brown, J. S. and Hammond, A. L. (2007). *A review of the open educational resources (OER) movement: Achievements, challenges, and new opportunities*. Hewlet Foundation.

Bock, G. W., Zmud, R. W., Kim, Y. G. and Lee, J. N. (2005). Behavioral Intention Formation in Knowledge Sharing: Examining the Roles of Extrinsic Motivators, Social-Psychological Forces, and Organizational Climate. *MIS Quarterly.* **29(1)**. 87-111

Creaser, C. (2010). Open access to research outputs-institutional policies and researchers' views: Results from two complementary surveys. *New Review of Academic Librarianship*. **16(1)**. 4-25.

Davenport, T. H. and Prusak, L. (1998). *Working knowledge*. Boston, Massachusetts: Harvard Business School Press.

He, W. and Qian Qiao b, K.-K. W. (2009). Social relationship and its role in knowledge management systems usage. *Information & Management.* 175-180.

Kankanhalli, A., Tan, B.C.Y. and Wei. K. (2005).Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS Quarterly*. **29(1)**. 113-143. Available at: http://aisel.aisnet.org/misq/vol29/iss1/7/

Kiran, K. and Chia, Y.P. (2009). Open access initiatives in academic libraries: challenge to the user. Paper presented at *World Library and Information Congress: 75th IFLA General Conference and Assembly:* Libraries create futures: Building on cultural heritage, held on 23-27 August 2009 at Milan, Italy. Available at http://www.ifla.org/annualconference/ ifla75/ programme2009-en.php

Papachristopoulos, L., Tsakonas, G. and Papatheodorou, C. (2008). Enforcement of information seeking behavior through digital library services, 97-105. In *Libraries In the Digital Age 2008, Dubrovnik and Mljet, Croatia, 2-7 June 2008*. Available at: http://eprints.rclis.org/handle/10760

Pinsonneault, A. and Kraemer, K. L. (1993). Survey research methodology in management information systems: An assessment. *Journal of Management Information Systems.* **10**. 75-105.

Salant, P. and Dillman, D. A. (1994). *How to conduct your own survey*. New York: John Wiley and Sons.

Swan, A. (2005) Open access self-archiving: An introduction. *Technical Report*. Available at: http://eprints.ecs.soton.ac.uk/11006/.

Tenopir, C. (2009). Measuring the value of the academic library: Return on investment and other value measures. *Proceedings of the 2009*, NASIG Annual Meeting.

Teo, T.S.H. and Pok, S.H. (2003). Adoption of the internet and WAP enabled phones in Singapore. *Behaviour & Information Technology*. **22(4)**. 281-289.