

Knowledge Sharing in Collaborative Environment

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ABSTRACT

In collaborative environments, members may try to obtain similar information on the Web in order to gain knowledge in one domain. For instance, in a company several departments may consecutively need to buy business intelligence software and employees from these departments might have studied online about several business intelligence tools and their features separately. It will be productive to get them connected and share learned knowledge. Many organizations have collected and stored vast amount of data. But, they are not able to discover valuable information concealed in the data by transforming these data into valuable and useful knowledge. Knowledge-sharing activities can improve access to information, ease communications with colleagues, and encourage participation in learning and decision-making communities.

Keywords: Knowledge, collaboration, decision-making, knowledge-sharing.

INTRODUCTION

Interacting with the web and with colleagues or friends to acquire information is a daily practice of many human beings. In a collaborative environment, it might be frequent that members try to acquire similar information on the web in order to gain specific knowledge in one domain. Knowledge is a key resource that must be managed within organizations and across joint enterprise networks. In particular, the two main challenges that face such organizations

are; ensuring that they have the appropriate knowledge to support their operations and ensuring that they optimize these knowledge resources available to them. The competitiveness and sustainability of a modern organization depends on its ability to perform in an entrepreneurial manner and innovate successfully [1]. Knowledge sharing and collaboration facilitate the cross fertilization of ideas and enhanced creativity. In information era, knowledge

is becoming a critical organizational resource that provides competitive benefit and giving rise to knowledge management (KM) initiatives. Numerous organizations are employing information technology in knowledge management to assist creation, sharing, integration, and distribution of knowledge.

Knowledge Management (KM) encompasses a variety of approaches and practices used in an organization to recognize, create, signify, share out, and facilitate implementation of insights and experiences. Knowledge Management center on organizational objectives such as enhanced routine, competitive advantage, originality, the sharing of lessons learned, combination and continuous development of the organization. To implement Knowledge Management practices in higher educational institutions, it needs to adopt a securable knowledge-based system. Figure 1 illustrates the Knowledge Process and Life Cycle.

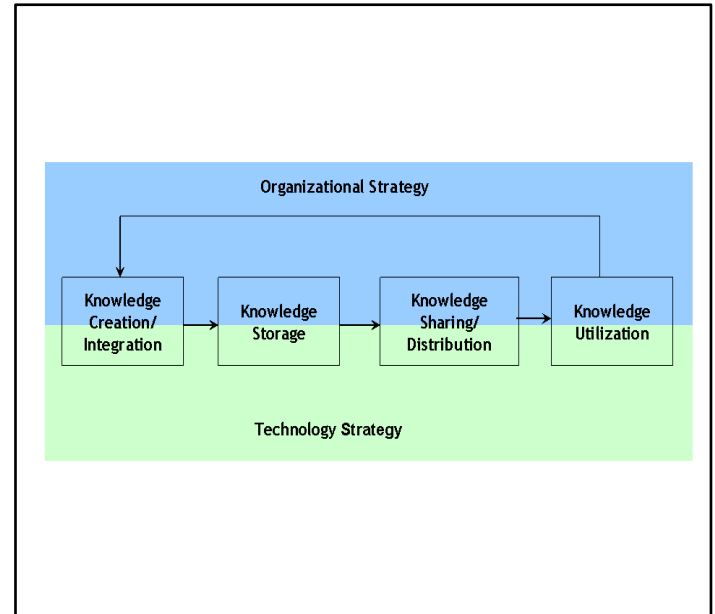


Figure 1: Knowledge Process and Lifecycle

The procedure of knowledge lifecycle is described below:

1. Knowledge Creation - Knowledge is created from the person and stored in the form of document as knowledge repository.
2. Knowledge Storage - Knowledge is stored and structured in a repository. The evaluation on how and where lies with the organization. But the purpose of this phase to facilitate organization to be able to contribute, categorize and share knowledge with.
3. Knowledge Sharing - Knowledge is pooled and right to utilize by people. They can also search or find the way to the knowledge items.
4. Knowledge Utilization - The knowledge management does not have any

significance if knowledge created is not utilized to its potential. The new knowledge is created as knowledge is applied and utilized [2].

LITERATURE SURVEY

In information retrieval research, retrieval can be seen as the main task in interacting with an information resource, not browsing. The capability to tailor retrieval by means of obtaining user response to retrieved items has been implemented in several information retrieval systems through retrieval clustering (Cutting, et al., 1992) and through relevance feedback.

In organization, knowledge is a significant resource. Management of knowledge resources has turned out to be a strong demand for development. Discovering the valuable knowledge has also become a significant approach for management and decision making [3].

Despres, Charles, Chauvel and Daniele (2000) defines Knowledge Management as, "The idea of knowledge management is to improve organizational performance by explicitly designing and implementing tools, processes, structures, systems and cultures to improve the formation, sharing, and use of different types of knowledge that are critical for decision-making [4].

Lee (2001) refers knowledge sharing as activities of transferring or disseminating information from one person, group organization to another [5].

Wang & Wang (2008) point that data mining can be helpful for KM in two main manners: (i) to share general knowledge of business intelligence (BI) context among data miners and (ii) to use data mining as a means to extend human knowledge. Thus, data mining tools could help organizations to discover the hidden knowledge in the vast amount of data [6].

In Cantu & Cellbos (2010) focused on organizing knowledge assets by applied knowledge and information network (KIN) approach. This platform enclosed three components types of research products, human resources or intellectual resources, and research programs. The different types of research assets were handled on domain ontologies and databases [7].

Hariton A. Efstathiades (2013) describes knowledge extraction from social network. The information was retrieved from online social network mostly through a manual programming procedure by making use of application programming interface. Though, the majority of social science researchers typically have little programming experience. Thus the method from data retrieval to knowledge extraction is not a trivial job for them [8].

Kuo et al. (2014) intended to examine the degree to which interaction as well as other predictor contributes to student satisfaction in online education settings. The effects of student background variables on predictors were explored. The outcome showed that learner-instructor communication, learner-content interaction, and Internet self-efficacy were good predictors of student satisfaction as interactions between students and self-regulated learning did not add to student satisfaction. As a result a better interaction has to be integrated for encouraging e-learning environment [9].

DIPRO 2.0 is an educational social network for university professors to build up their training in the region of personal learning environments through mutual learning and creation of knowledge. Here web 2.0 social network tool is used efficiently to mine the knowledge from various web sources. Members from different educational institutions interact through social network tool. The ideas and opinion were shared between the various users. The level of knowledge transmitted all the way through social network tool is in high-end since the mutual environment is provided with the aid of web 2.0. Moreover the knowledge sharing phenomena is discussed in this framework (Verónica Marín-Díaz et al., 2014) [10].

CONCLUSION

Knowledge management involves linking people with people, as well as people with information. They have to convert information and knowledge into action. Relevant documents containing knowledge that is vital for decisions to be made are more easily accessible. It enables elevated levels of collaborative performance both globally and locally and allows enhanced decision making.

These days with technology improvement and also increasing the quantity of data we need a method and system that can help people to find their interests and their items with less effort and also with spending less time with more accurate. The proposed system will help user in finding the useful information with less efforts, also give recommendations to the user based on different factors. Effective knowledge management enables higher levels of collaborative performance. In order that the right information flows to the right people at the right time to make the right decisions.

REFERENCES

- [1] Kathryn Cormican and Lawrence Dooley, "Knowledge Sharing in a Collaborative Networked Environment", *Journal of Information and Knowledge Management*, 16, 2, 105-115.

- [2] S. Rajalakshmi and R. S. D. Wahidabanu, “*Sharing and capturing tacit knowledge in higher education*”, International Journal of Computer Theory and Engineering, Vol. 3, No. 3, June 2011.
- [3] Cutting, D. R.; Pederson, J. O.; Karger, D.; and Tukey, J. W. 1992, “*Scatter/Gather: A cluster-based approach to browsing large document collections*”, In Proceedings of the 15th Annual International ACM/SIGIR Conference, pp. 318-329. New York: ACM Press.
- [4] Despres, C. & Chauvel, D. 2000, “*A Thematic Analysis of the Thinking in Knowledge Management*”, In Charles Despres & Daniele Chauvel (Eds.), Knowledge Horizons: The Present and the Promise of Knowledge Management. Butterworth-Heinemann.
- [5] Lee, H. (2001), “*An empirical investigation of KM styles and their effect on corporate performance*”, Information & Management, 40(5), 403-417.
- [6] Wang, H. & Wang, S. (2008), “*A knowledge management approach to data mining process for business intelligence*”, Industrial Management & Data Systems, 108(5), 622-634.
- [7] Cantú, F.J. & Ceballos, H.G. (2010), “*A multiagent knowledge and information network approach for managing research assets*”, Expert Systems with Applications, 37(7), 5272-5284. doi:10.1016/j.eswa.2010.01.012.
- [8] Hariton A. Efstathiades (2013), “*Extract knowledge from social networks*”, Thesis Web Information Systems, Department of Software Technology Faculty EEMCS, Delft University of Technology.
- [9] Yu-Chun Kuo, Andrew E. Walker, Brian R. Bellan, and Kerstin E. E. Schroder.(2014), “*A Predictive Study of Student Satisfaction in Online Education Programs*”, The International Review of Research in Open and Distance Learning, 15(3).
- [10] Verónica Marín-Díaz, Ana Isabel Vazquez Martinez, and Karen Josephine McMullin (2014), “*First steps towards a university social network on personal learning environments*”, The International Review of Research in Open and Distance Learning, Volume No 15(3).