CREATING COLLABORATIVE PLATFORM FOR KNOWLEDGE TRANSFER BASED ON ACTOR-NETWORK THEORY

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ABSTRAK

Pengurusan maklumat adalah satu cabang pengetahuan yang sangat berkembang dan telah diakui keberkesanannnya di dalam organisasi. Pengenalan kepada konsep ini telah bermula pada pertengahan tahun 50-an di mana konsep pengetahuan telah dikaji dan dikembangkan sehingga tercetusnya evolusi pengurusan maklumat seperti perpindahan dan kolaborasi maklumat. Kolaborasi maklumat telah diimplementasi dengan pelbagai cara bagi mempertingkatkan prestasi dan memantapkan pengetahuan staf. Kolaborasi maklumat menyentuh kepada ikatan perhubungan yang mantap antara aktor yang terlibat dan tidak dapat diasingkan. Perhubungan antara aktor ini akan diterjemahkan melalui teori sosiologi yang dinamakan sebagai Teori Actor-Network. Projek ini dilakukan bertujuan untuk mengkaji bagaimana teori sosiologi dapat digunakan sebagai alat terjemahan masalah dan penyelesaian di dalam masalah yang melibatkan sistem maklumat seperti pembangunan platform web untuk kolaborasi maklumat di kalangan kakitangan Teknologi Maklumat di Politeknik Malaysia. Kajian ini juga menunjukkan bagaimana Teori Actor-Network dapat dikaitkan dengan aktiviti-aktiviti di dalam pembangunan sistem seperti mengenalpasti keperluan, kajian sistem sedia ada dan peranan setiap aktor. Kajian ini juga menunjukkan kesesuaian teori ini digunakan di dalam persekitaran kolaborasi. Apabila semua aktor, peranan dan keperluan aktor dikenalpasti, satu rangkakerja ANT telah dibangunkan bagi menunjukkan struktur aktor yang berkait di dalam pembangunan platform web bagi kolaborasi maklumat. Gambarajah perhubungan antara aktor juga telah dihasilkan bagi menunjukkan kaitan perhubungan antara aktor. Kebelakangan ini, telah terdapat kajian yang menunjukkan bahawa teori sosialogi telah membantu menghasil dan menyelesaikan masalah di dalam pembangunan sistem. Walaupun secara ringkas, kajian ini sedikit sebanyak memberi gambaran bagaimana bidang pembangunan sistem dan teknologi maklumat dapat menggunakan teori tersebut di dalam bidangnya.

ABSTRACT

Knowledge management is a growth diciplines and has been widely used in organization to improve the effectiveness of the knowledge among the employee. The introduction of this concept has started in the midst of 50s where the concept of knowlege has been studied and has been enhanced to the new diciplines which are knowledge transfer and collaboration. Knowledge collaboration has been implemented in variety of ways to creates the knowledge sharing and individual knowledge, talents and information can be effectively used. Knowledge collaboration is all about relation and connection of involved actor and this cannot be separated. This relationship is translated through an Actor-Network Theory, which is a sociology theory. This project is to study how socialogy theory can be used as an intepreting and solution tool in information system field such as creating a collaborative web platform for IT Personnel in Polytechnic Malaysia. This project also shows how Actor-Network Theory can be related to system development activities such as identfying list of requirements, analyzing current system and identfying the actor's roles. Once the actors, roles and the list of requirements have been identified, the ANT Framework for collaborative web platform has been built to represent the actor's structure that relate. Actor-Network Diagram has been built to show the relationship among the actors. Lately, many researches has used this theory to produce and solve the problem. In briefly, the reseach has showed the implementation of socialogy theory in information system and technology field.

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LIST OF ABBREVIATIONS

ANT	:	Actor-Network Theory
CELM	:	Collaborative Engineering Life Cycle Methodology
HOD	:	Head Of Department
ICT	:	Information and Communication Technology
IS	:	Information System
IT	:	Information Technology
KM	:	Knowledge Management
KMS	:	Knowledge Management System
OPP	:	Obligatory Passage Point
RAD	:	Rapid Application Development
SDLC	:	System Development Life Cycle
STS	:	Social and Technology Studies

CHAPTER 1

BACKGROUND OF THE STUDY

This chapter presents the overview of knowledge sharing and knowledge collaboration. Problem statements, objectives, scope, significance of study are also discussed in this chapter.

1.0 Introduction

Knowledge becomes significantly a valuable entity since the increased use of computers in the second half of the 20th century. In this era, knowledge is treated as an important asset and something that very priceless either by individual or organizations. Thousand of money has been invested to enable the culture of knowledge management in organization. By using a technology, knowledge can be widely spread over the world. Earlier than this, people are use to transfer their knowledge in classic way from one person to another either by verbally or in written. Activities such as discussion forum, formal apprenticeship, training, mentoring, and on-the-job training are practical ways to transfer and share the knowledge. In those days, people will get the benefit of the knowledge transfer if more experienced members sharing the knowledge in an organization or group. For instance, knowledge transfer happens when the founder of the family business trains his sons and daughters to run the business. It also takes place when a student goes to college and learns from a professor and also when an apprentice chef trains under a master chef. Without the technology, knowledge only can be manually transferred and shared in certain boundary. Those people who are physically not in this group might not be able to participate.

These days, with the support of the technology, organization and companies have realized the importance of sharing and transferring knowledge especially among the employees. Many platforms using the computer

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