Developing Individual Mastery Framework[1] in an Embedded-Organization[2].

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Abstract

All are organizations embedded, here in after, Em-organizaion that confronts the ever-growing complexity. It is important to know Em-organization through Individual Mastery. The complexity must be decreased, and clarified in order to derive to get our ontology from the influence of others. The opportunity to learn in practice is embedded in processes that the community developed. Driving strategic innovation is achieving breakthrough performance throughout the value chain. We used to express complex unit on matrix which includes only the federal statutes because the role of information technology should be a source of competitive advantages each other. Therefore, we got the idea that integrated both kinds of knowledge to create differentiation by ourselves. This practice is situated the learning of Strategic CoP in e-class seminar of our graduate school. We suggest theoretically two things. One is matrix-based decision. Another is creating new context through systems thinking.

Keywords:

Embedded Organization; Individual Mastery;
Matrix based decision; mental models; Strategic CoP

Introduction

In the first place, it is very difficult to define what an organization really is. “What is an organization that might learn?” That was a complicated. People who examined organizational learning would have to the deliberate into consideration the basic ideas of systems thinking, ..mental models[4,34]. This paper describes the individual level, implementation of integrated information systems (IS), driven by the IS[4, 28,p.53].

IT innovations with application programs[19] are often subject to uncertain and complex. IT innovation may confront ambiguous and strategic reposition[18]. IT can be used to produce differentiation. According to Sprague(1980), a development framework is helpful in organizing a complex subject. The design problem of providing IT support for emerging knowledge are organizational activity patterns. One of them is complex(both general and specific). Basic researches include exclusive information systems, and organizational memory systems[23].

Whitley has identified the sets of contextual factors affecting the structures of scientific fields. Degree of concentration of control over access to the means of knowledge production and validation is dominated by a small number of research sites. A concrete illustration of the working of this contextual factors is the use of mathematics

[1] building from Personal Mastery, one of Learning Organization principles. It express the nature of theory and processes of analysis, integration, and imagination; mental images of things, people and events.
[2] a context of domain-knowledge-specificity

methods which reduce task uncertainty[28]. Weil and Ross(2004a) introduce a matrix method. The horizontal axis lists key decisions and making use of the matrix, the management group can identify and analyze where IT decisions are initiated. Internal the domain[11] represent on the matrix. According to Minzberg(1994), strategic planning requires external information with a wide scope and a future time horizon. This table enables governance mechanisms such as decision making structures, alignment processes and formal communications. The decision rights and accountability framework to encourage desirable behavior in the use of IT[11].

In [29], community provides a platform for advancing individual and/or collective knowledge. According to the theory existentialism, a community is a context which harbors meaning. Knowledge is embedded in community[29]. Thinking systemically, seeing patterns and the "invisible fabrics of interrelated actions, which often take years to fully play out their effects on each other."[4].

Therefore, we designed this paper that we first research theoretical bases; operational community characteristics, integrating two kinds of knowledge, and three factors of practice power in strategic community.

After that, we initiate a framework for Individual Mastery. This is synthesized the framework that includes a stage while their mental models fits internal information to work contents on matrix. 1) The situation with both general and specific homeworks. 2) The virtual space with both tacit and explicit knowledges, are distributed.[29]. 39students can access any websites to get more external information.

The best that captures the keys to individual mastery success is the analogical inference of the prototype for the critical issue. We try to find what happen to the strategic CoP by IT.

Theoretical Bases

To solve inevitable conflicts, we should get a decision making on a plan to develop a common back-office processing system for out-of-school[12].

Three theories support our developing individual mastery framework as below;

1) Whitely's model
2) The SECI Model
3) Two patterns of SCMS use.

Operational community characteristics

What are the fundamental conditions for knowledge creation? To address these questions, Ikujiro Nonaca and Noboru Konno introduce the Japanese concept of "ba., which translates into the English word "place" and we called "community". Community can be virtual(e.g., teleconference), mental(e..g., ideas, ideals, shared experiences). Puerer knowledge creation need diversity in membership and less emphasis on hierarchical status to reduce the probability of group-think[12]. Mulkay uses the terms "scientific community" and "intellectual community"[28]. It provides a platform for advancing individual[12,29]. Community can be thought of as a shared space for emerging relationships[29], which is a reasonable choice for its ability to gain wide/various coverage of (one type of) embedding of social network sites in the web[25].

Merriam and Caffarella(1991) said social learning theory posits that people have learned from observing other people. Symbols are retained from a modeling experience act as a template with which one's actions are compared. During this rehearsal process individuals observe their own behavior. In this model the behavior results from the interaction of the individual with the environment. A more radical model - *situated learning* - has been put forward by Lave and Wenger (1991)[41].

Even though "Strategic communities" are formed to meet short term operational needs, they lead long term value to their organizations through learning and knowledge transfer[12]. Our IT is a using internet. An strategic CoP is a scheme. Without a systemic orientation, there is no motivation to look at how the disciplines interrelate. The importance of factors such as strategic organizational design, informal networks has a pivotal impact on an organization's performance[13] because knowledge is embedded in community. According to MIT executive education program, driving strategic innovation will change the way you think about innovation and technology strategy, more comprehensive roadmap for executing change. A positive reputation is achieved through the use of a formal public communication system which comprises seminars, etc[28]. And then, it is seen as a form of working organizations.

Whitely applies the methods of sociology, more specifically of the sociology of work organization. He also uses a set of contextual factors to explain how the evolution of these fields can be explained or influenced through certain actions of internal or external agents[28]. A scientific communities are good candidates as the basic units of analysis: Operationally, these communities are created along both practice like a social activity and a context of domain-knowledge-specificity we called Em-organization as a cognitive dimension.

Integration two kinds of knowledge

People draw much of their personal identity from that of the organizations to which they belong. Organizational identity influences both internal and external[24]. A key problem that organizations face today is the ever-growing complexity of the world[4]. The organization should be studied from the viewpoint of how it creates knowledge[29]. Ackoff(1967) had already predicted information overload[8].

The strong link between some aspects of the social and the cognitive dimensions of intellectual fields justifies a simplification of Whitley's model with minimal loss of interpretative power. It's variable is functional dependence.

Mental Models mean the ability to unearth our internal pictures of the world[6], and to make individual value connect to situation[37]. IS is situated in, and representations of, some real world domains. It is important for developing effective IS to get understanding domain and reality in our knowledge[12].

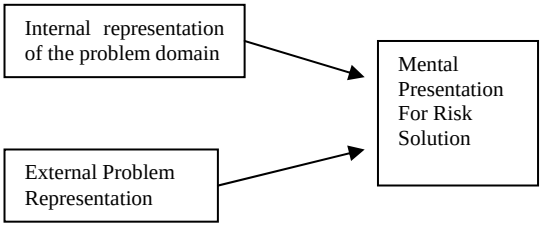
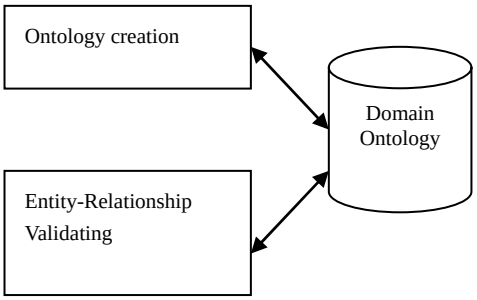


Figure1. Adapted from extended cognitive fit model[11]

A domain can be known and formally represented by a knowledge representation schema. Ontologies provide a set of concepts that are used to structure and represent our knowledge about the domain. They take on the role of explicit representations of domain knowledge. Ontology should be based on empirical observed structures of reality[22].

Vessey(1991) explained how graphical displays affect the decision processes and outcome of decision making by cognitive fit theory[27]. Everman wrote external knowledge representation forms with any potential benefit in context[13]. But the relationships are contained within one graphic area-a graphic containment task. Senge says when we reduce these complex problems, we "can no longer see the consequences of our actions. We lose our instinsic sense of connection to a larger whole," thinking systemically, seeing patterns and the "invisible fabrics of interrelated actions, which often take years to fully play out[4].



Frgure2. Role of Domain ontology: Adapted Ontology Management and Database Design Environment architecture[22]

According to Cooper, the effects on decisive quality depends on the level of massage clarity[6]. Wenger said that all of CoP have a domain and a practice[31].

Strategic community is a context which harbors meaning by existentialism[29](or ontology) in e-class seminar, knowledge is embedded in the community. Knowledge creation is a spiral process of interactions between explicit and tacit knowledge. Following Polyani(1996) distinguish between focal and subsidiary awareness, explicit knowledge is the codified data, or formal knowledge. In contrast, tacit knowledge refers to the highly subjective insights, intuitions, and the accumulated skills and experience. So, tacit knowledge is recognized to play an important role in technological innovation[39]. The interactions between those kinds of knowledge lead to the creation of new knowledge. This is the idea of self-actualize[29].

Three factors of practice power

The Art and Practice of the Learning Organization tell that Personal Mastery is the skill of continually clarifying the deepening of our personal vision[4]. In this paper, Individual Mastery means to capture IS, which is taking a position or making differentiation in complexity. According to Whitley, the quite explicit aim of the members of intellectual fields is the production of new knowledge[28]. Domain-knowledge specificity is the degree to which a supplier's critical expertise such as strategy formulation and new-product development is particular to the requirement of the focal firm[37].

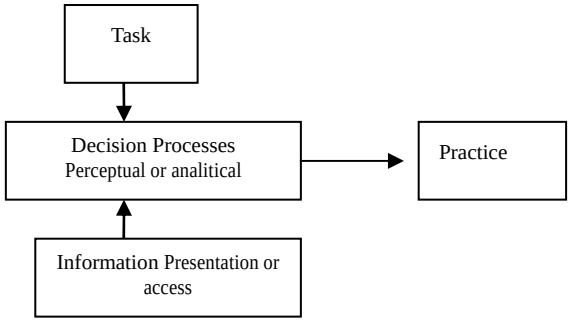


Figure 3. Re-Adapted. Cognitive Fit in Multicriteria Geographic Tasks. Adapted from Vessey(1991)[13]

Since the concepts of decision support systems(DSS) were first put by Scott Morton(1971), one view is that DSS are "major breakthroughs". Keen and Wagner(1980), Rockart(1979) recognize a system as DSS only when it helps the executive decision makers. To operationalize the concept of DSS effectiveness have used various criteria. One of them is confidence. Confidence is typically a perceptual, self-reported measure of the degree of confidence a decision maker has in the solution to a problem[32]. The most executive information systems are tailored to individual executive users; exact, filter, compress, and track critical data[7];provide information[2,21], not data, to analyse trend. That is access and integrate a broad range of internal and external data without intermediaries.

It hence let internal representation of the problem domain is found to individual through systemically thinking. The keys to success of EIS are presented without any sense of their

relative importance[38].

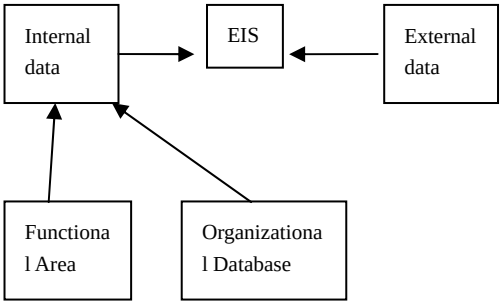


Figure4. Adapted from Structural Perspective of the EIS Development Framework[7].

Hitwise's define as a social network sites, defined more precisely as: a web site allowing individuals to register and create a profile and content, with a friendlily mechanism and oriented towards general social use rather than a specialist application[25]. Keen and Scott Morton[21;1978] shows a matrix as a logical systems level at which core concepts are explained, structural relationships between architecture components are mapped. Shared understanding, clearer picture of cause-effect relationships and greater understanding of operating environment need to use IT for exploration[37]. According to BCG matrix, e-business opportunity matrix[1] permits to take exploitation and exploration about context and content. Finally, the prototype of a critical issue is discovered. That is core concept to practice.

Toward a Synthesis

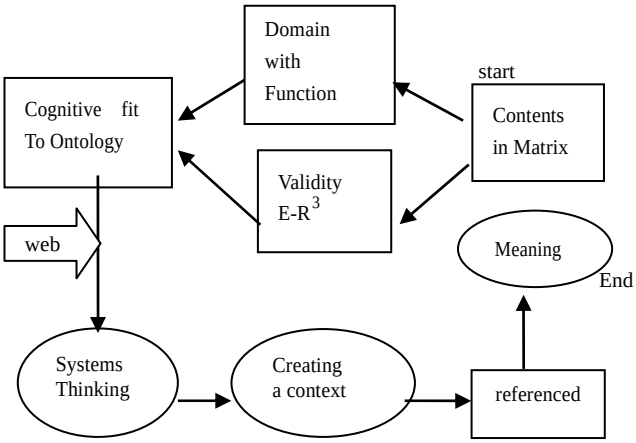


Figure 5. An Individual mastery Framework in Embedded Organization

[3] Entity-Relationship

First, Contents in matrix show are subjects to students into strategic community.
Secondly, thinking systemically causes cognitive fit to ontology of domain , function and entity-relationship on the matrix.
Third, to gain a broad scope on the web permits to create new a context to see through. In other words, mental model exchanges new context in the situation.
Finally, practitioner is referenced.
The central question underlying this research is whether the effect of the negative and positive can be observed. It is seeking to find meaning in the situation.

Complexity Set and Methodology

New concepts or methods can thus be learned in virtual situations[29,p45]. *e- class seminar* is setting a mental dimension of knowledge, which is represented by the difference between tacit and explicit knowledge, and an ontological dimension, which is associated with the forms of social interaction between individuals that share and develop knowledge[35].
This class permits a participant observation that is to produce deep description of social interaction within natural settings. She is try to find out of meaning in the situation.

Complexity set

There is high-variety among 39 students who mixed sexes, ages, citizenships, full-time and part-time, jobs, sites of a settlement, major in the undergraduate school and graduate school, and course works of master and doctoral.

- ► Homework is a writing which are two different subjects on the web.
- ► There are three documents to trend analysis to individual like a EIS.
- ► Two kinds of homework have been announced on the board analyse for the trend of the individual like a EIS espectively.

1) searching five journals in korea and foreign each.
2) writing a composition after reading 60pages of a paper in English being reviewed.

Research scope and Analysis unit

What can strategic CoP do to analyze the context of the trend in our graduate school? MIS for major activities and outputs have been designed in two stages by professor, Mr.Kim. The measurement of knowledge creation is only reference with counter.
See table 1 for a description of research scope**.**
Micarosoft Excel 2002 was used to get some graphics in extracted by observer.

Table 1 – Research scope

Items		Objects
Knowledge acquisition level		Individual
Tacit knowledge	Cognitive side	Mental models in an individual'actions(e.g.,click)
	Method	Strategic CoP
Explicit knowledge		Individual DB Document, memo
Knowledge acquisition method		Click with counter, Memo contents

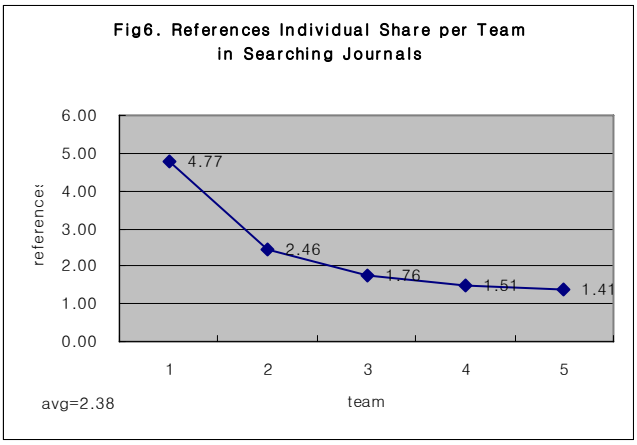
Results and Discussion

We get a similar results about reference[6]. The trust belongs to the authority of massage. (e.g. when agent announce, formal documents, instruction of the professor), and first mover is an attractive more than others.

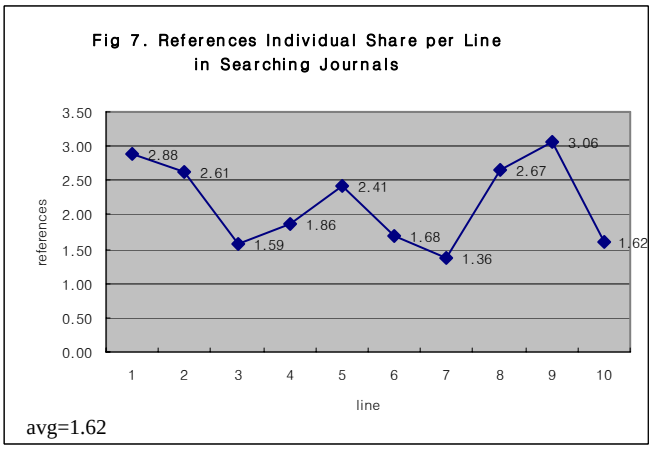
One page let 10 individuals listed, so, 5teams and 10 lines are made in searching journals. But, in reading a paper, one page let 5 individuals listed, so 11teams and 5lines are built.

► In general type homework shows as below;
Four of top five are referenced on first team expresses on the web as a page. Number 7 is the internal agent who is only one person on other team except first page.

References share per team is calculated as below;
First, references of team is added all up.
Secondly, exchange rate is evaluated.
Finally, rate divided by page equals share per team.
Here in after, values on graphics are calculated by same method.



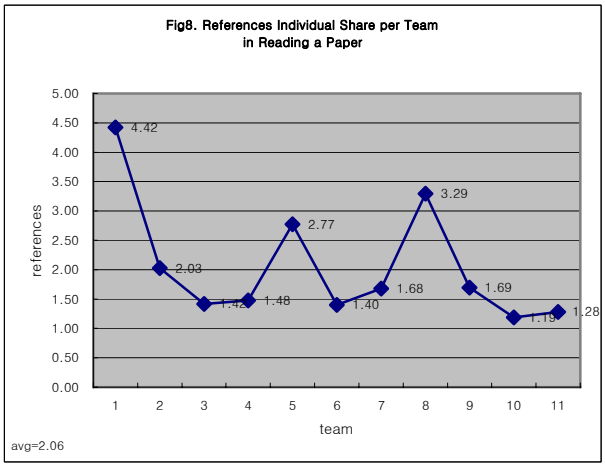
Total average of references in searching journals is 19.15 per student. This values are reduced one after another. First team is the best.[figure 6].
In searching journals, total average of references Individual share per line is 1.62.[figure7]



(Xi,Yj)=(number of e-class seminar, references)
- *Top 1st=line 9 ; average=3.06*
  (7,61),(32,13),(41,26),(3,8)
- *Top 2nd=line 1 ; average=2.88*
  (14,44),(11,26),(26,17),(7,29)
- *Top 3rd=line 8 ; average=2.67*
  (5,19),(13,25),(41,17),(7,33)

All of top three contain one person who is the internal agent called 7. Therefore, the massage for general type homework comes from internal.[figure 7].

► In specific type homework shows below ;



In reading a paper, total average of references share per page is 2.06[figure 8].

(Xi,Yj)=(number of e-class seminar, references)
- *Top 1st=team1 ; average= 4.42*
  (14,73),(14,43)
- *Top 2nd=team8 ; average=3.29 ⇐14 not here.*
  (40,25),(39,79),(18,32),(31,58),(9,22)
- *Top 3rd=team6 ; average=2.77*
  (37,10),(20,11),(15,4),(14,13),(10,54)

List number1, 10, and 36 express same word,'abstract' on their column titles.[figure 8].
There are not unique page. Most students want just two abstracts of two papers, not the project plan of **14 in**

team 6.

(Xi,Yj)=(number of e-class seminar, references)

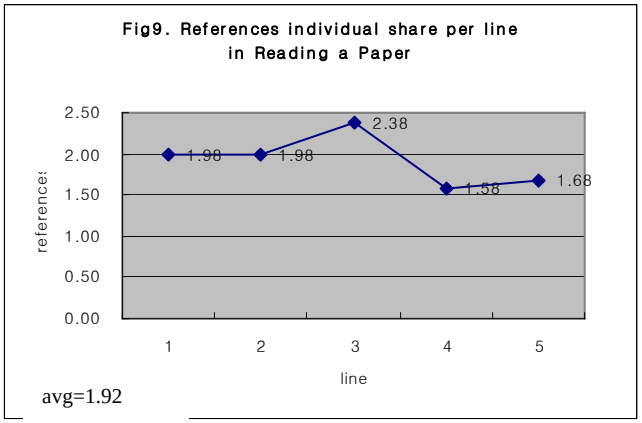
■ *Top 6= (**14**,1),(**14**,10),(**31**,22),(36,30),(**31**,34),(39,36)*

Direct path(4) is stronger than indirect path(2).
Most students want a abstract and academic knowledge of the domain.[Table2].

Table2 –Contents of top six in reading a paper

List Number	references	Keyword of List titles	Contents In memo	Cited subjects In memo
1	73	abstract	Taken paper	Seminar
10	57	abstract	Taken paper	Seminar
22	80	Academic memo	A model of report	Seminar
30	72	Plan after this	View point	Research method
34	58	Academic paper review	Research method	Mis
36	79	abstract	method	Seminar
avg	25.23			

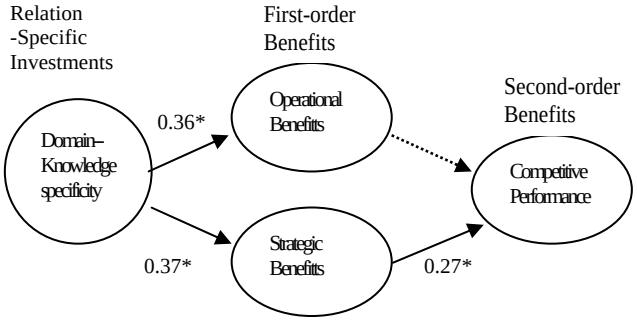
Total average of references in reading a paper is 19.15 per member. References individual share per line in specific type homework is not unique[Figure 9]**.**



Total average of references share per line in searching journals is 1.92.

Conclusion

The best, line 3 contains (number of e-class seminar;35, 16, **14**,22 and 4). So, number **14** looks like a similar external agent in e-class seminar. She doesn't realize this fact until this paragraph written because she works for Ph.D as a part-time student and has no idea about this paper at all. She take an active part in his two stages-strategic CoP as a course work for her major, MIS. They provide a means to manage their complexity more effectively using their tacit knowledge. First stage in the lecture-hall, most students had not have their own opportunities to represent their opinion. But, Second stage on the web, almost student speak their knowedge with their own domain.
We show an framework for Individual Mastery. It provides insight into new ways of doing in the changes that organizations must manage the complexity of an extending organization[7]. Domain-knowledge specificity arises from the development of a context-sensitive understanding of cause-effect relationships. It should be the path to strategic benefits such as figure10.



* p<.01

Figure 10. Adapted from IT use, relationship-specific investments and supplier benefits[41].

Eventually, our research method has discovered one thesis in this paper. competitive performance comes from strategic benefits. Strategic benefits comes from domain knowledge specificity.

Therefore, the fundamental cause of competitive performance is domain-knowledge-specificity.

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