

**SUGGESTING A FRAMEWORK FOR TRANSITION TOWARDS MORE  
INTEROPERABLE E-GOVERNMENT IN TURKEY: A NAUTILUS MODEL OF  
CROSS-CULTURAL KNOWLEDGE CREATION AND ORGANIZATIONAL  
LEARNING**

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**Abstract**

*As an important project for Turkey to achieve the Information/Knowledge Society Strategic Goals, the e-Government Gateway currently focuses on the delivery of the public services via a single portal on the Internet, underlying a transition towards more integrated systems and interoperable operations. In order to provide a supportive base for this transition we develop a modeling of "nautilus" model of cross-cultural knowledge creation and organizational learning, and link this conceptual model with the e-Government Gateway. Based on Knowledge Science concepts such as ba (place), ma (time), reflection and refraction, nautilus model incorporates the interactions @ the Internet and mobile devices that contribute to cross-cultural information transfer and knowledge creation. We hope the resulting work will contribute to the improvement of e-government services not only in Turkey but all around the world.*

**Keyword:** *E-Government Gateway Project in Turkey, Reflection-Refraction, Ba-Ma, EMMA and ECUI spirals, nautilus model of cross-cultural knowledge creation and organizational learning*

**JEL Classification:** M15 - IT Management, L86 - Information and Internet Services, H83 - Public Administration

## 1. INTRODUCTION

The e-Government Gateway (e-Devlet Kapısı) Project is a major milestone for achieving the Information/Knowledge<sup>1</sup> Society Strategic Goals set by Turkey. Here, e-Government basically means provision of public services through electronic means, which implies faster and cheaper access to these services. In order to facilitate access to electronic public services by citizens and enterprises, it will be ensured that these e-Government services are reached from a single portal and via multiple channels through secure transaction.

In general, providing conceptual frameworks and models to explain and guide the ongoing e-Government practice is considered a necessity by many (mLife Events 2008, Turkey; National e-Government Conference 2008; Turkey, ICEGOV 2008, Egypt).<sup>2</sup> For instance, developing models for transferring good and best practices recently becomes increasingly important. “What travels well” (Schware 2008), “how to manage boundaries for cross-boundary interactions” are among the issues to be modeled (ICEGOV 2008).<sup>3</sup>

In this paper, we aim to provide a “nautilus” model of cross-cultural knowledge creation and organizational learning that can be linked with the e-Government Gateway Project in Turkey. This model can then provide the theoretical base and philosophical vision to pave the way for the necessary transition towards more integrated and interoperable government services in Turkey. The outline of the paper is then the background information about the e-Government Gateway project, the development of the conceptual modeling, and together with the conclusion, future directions with respect to the interlink of the nautilus model with the e-Government Gateway project.

European Interoperability Framework signifies three aspects of interoperability: Organizational, Semantic and Technical.<sup>4</sup> While our theoretical framework of cross-cultural knowledge management and organizational learning can address all these three aspects in general, the nautilus model suggested in this paper will specifically emphasize the Organizational Interoperability.

## 2. E-GOVERNMENT SERVICES AND E-GOVERNMENT GATEWAY PROJECT IN TURKEY

Increased integration in service delivery based on commonality of infrastructures, data, and business processes, and service innovation achieved by multi-channel service delivery and *smaller and smarter* use of back-end processes and systems to support *bigger and better* front-end operations encourage more collaborative models of service delivery (UN 2008). These models of “connected or networked government” request government agencies

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<sup>1</sup> In Turkish, the same word, “Bilgi”, is used for information and knowledge interchangeably.

<sup>2</sup> <http://www.mgovernment.org/events/>, <http://www.edevletkonferansi.org/>, <http://www.icegov.org/> (Retrieved on 13.12.2008)

<sup>3</sup> ICEGOV 2008, Tutorial 10, Electronic Governance, “Transfer”, organised by Dr. Christine Leitner, Danube University, Krems Austria.

<sup>4</sup> <http://ec.europa.eu/idabc/servlets/Doc?id=19528> *European Interoperability Framework for pan-European eGovernment Services* IDABC, European Commission (Retrieved on 06.12.2008)

rethink their operations, to move towards a chain-oriented paradigm with respect to structure, culture, knowledge and management, and to look towards technology as a strategic tool and an enabler for public service innovation and productivity growth. (ibid.)

According to the same UN report (2008), following a systemic approach to collection, reuse, and sharing of data and information, networked government is based upon interoperability as the ability of government organizations to share and integrate information by using common standards. Potential common standards, policies, and frameworks should be flexible enough to respond to changing conditions and varying requirements. Networked governance encourages creative and collective societal action to advance the public good, influencing and incorporating the strategic actions of multi-stakeholders regionally and inter-nationally.

In Turkey, in order to facilitate access to electronic public services by citizens (and enterprises), these e-Government services should be reached from a single portal and via multiple channels. Users will be able to access the system with smart cards or imprinted digital certificates for secure transactions. Finally, "integration standards" will be adapted to the establishment of an interoperability framework. Among ongoing interoperability projects, for instance, a document management system and enterprise service bus has been developed. Built upon "xml", "bpel", and "wsdl" are in use for the flow of documents and definition of processes, and for the definition of services, respectively. While technology independence is an important factor for global markets as in Turkey, "Java" and ".Net-based" technologies are the most dominant ones in the Turkish market, and this dominance is also reflected in government organizations' technology usage habits. Web Services and e-Devlet Kapısı thus have an important role to provide interoperability not only for intra-government but also inter-government operations (government-to-government).

In general, in 2011, 70% of all the e-Government services will be ready according to the Information Society Strategy in Turkey. In the 2008 progress report by DPT (2008), it is noted that among the 111 actions defined in the strategy document, only 3 are concluded, 51 are work-in-progress, 34 are at the beginning stage, and 23 are yet to start. In the report DPT (2008) highlights that the priorities and objectives of the Strategy still need to be appreciated and owned by all stakeholders, responsible and interested entities in the society. Problems experienced in the implementation of the Strategy are also underlined by the report under the headings of Legislation (and Legal) Issues, Financial Issues, Personnel (and Human Resources) Issues, Issues of Intra- Institutional Coordination, Issues of Inter-Institutional Coordination, and Other Issues. (DPT 2008) According to our analysis, overall, problems of Legislation Issues and Issues of Inter-Institutional Coordination are evaluated to have the highest (negative) impact (21%), followed by Personnel Issues (19%), Financial Issues (16%), Issues of Inter-Institutional Coordination (13%) and Other Issues (, which also highlight coordination issues) (%10) in the implementation of the Strategy. Similarly, problems of Legislation Issues and Issues of Inter-Institutional Coordination are highlighted the most (19%) by individual actions of the strategy, followed by Personnel and Financial Issues (18%), Issues of Inter-Institutional Coordination (17%) and Other Issues (9%). These analyses, we think, underline the necessity of cross-cultural interaction among various societal entities for integration and interoperability of e-Government services in Turkey.

The e-Government Gateway project will also be under continuous development in response to the arising needs of integration and interoperability from citizens, business enterprises and public institutions, following a spiral model for project management. By completion of the project, for instance, a conceptual integrity called “integration standards” will also be ensured where security standards and data-sharing of public institutions at inter-organizational level is provided under one roof. These integration standards then contribute to the establishment of an interoperability framework. Interoperable systems working in a seamless and coherent way across the public sector will then be a turnkey for providing better, tailored, cheaper services for citizens.

To underline the importance and necessity of such integration and interoperability, the e-Government Gateway project is publicized as a publicly-owned project. Created out of a national competition for logo (and motto) design, the logo (Figure 1) and identity of the project, rather than of the company, is mostly used for publicity purposes, such as in ICT fairs, or e-government conferences, among other related events.

**Figure 1: The Logo of e-Government Gateway, Turkey**



We have provided a brief background and current situation of the e-Government Gateway in Turkey, underlying some specific issues about integration and interoperability. In the near future, Semantics Interoperability will be soon a necessity for the representation of knowledge, especially for integrated content and services at Semantic Web, as a universal medium for data, information, and knowledge exchange.<sup>5</sup>

Next we hope to present a theoretical perspective that can provide a conceptual base for the practical e-government operations as well as guide the transition towards integrated and interoperable e-government services. Here, specifically discussing different perspectives and issues regarding knowledge can be a useful contribution to the recent and future developments of semantics and interoperability.

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<sup>5</sup> [http://en.wikipedia.org/wiki/Semantic\\_Web](http://en.wikipedia.org/wiki/Semantic_Web) (Retrieved on 06.12.2008)

<http://www.aaai.org/ojs/index.php/aimagazine/article/viewArticle/2161>,

Tim Berners-Lee, James Hendler and Ora Lassila (2001) “The Semantic Web” *Scientific American Magazine* (Retrieved on 06.12.2008)

<http://www.sciam.com/article.cfm?id=the-semantic-web> Tim Berners-Lee, Lalana Kagal (2008) “The Fractal Nature of the Semantic Web” *AI Magazine, Fall* (Retrieved on 06.12.2008)

### 3. CONCEPTUALIZING KNOWLEDGE, SPACE-TIME (*BA, MA*), REFLECTION AND REFRACTION FOR DEVELOPING A NAUTILUS MODEL OF CROSS-CULTURAL KNOWLEDGE CREATION AND ORGANIZATIONAL LEARNING

Aktaş (1987) defines the data, information and knowledge under the topic of meaning. In this definition data has the lowest level of meaning, they are raw facts and opinions. Information is above the data with higher level of meaning, and it is useful for present decision situation. In this trio, knowledge has the highest level of meaning, because it represents information that can be potentially useful in future decision situations. For simplicity, currently knowledge is used to represent data, information, knowledge and wisdom (as all types of episteme). Following the knowledge-creating spiral of Nonaka and Takeuchi (1995), Umemoto (2004) discusses that knowledge can be created spirally as a result of continuous interaction among these different types of episteme.

This hierarchical interlink among data, information, knowledge and wisdom constitutes Sophia, as the ultimate outcome. This can be compared with Sophistication, a development and maturation journey that emphasizes the process (knowing) rather than the outcome (knowledge). This knowing process is closer to Turkish culture, where knowing together or each other (“*bilişmek*”) is more meaningful, valuable and useful than distinguishing data, information, knowledge and wisdom according to their levels of meaning, value and use. This notion of knowing each other and together highlights the importance of cross-cultural interaction and knowledge management. Accordingly, knowledge has to be understood and agreed upon (known) by all the different entities involved with the process of knowledge creation and management, if ever it deserves to be called knowledge. Otherwise, rather than particularly distinguishing information and knowledge, Turkish language and culture signify knowing, knowing-yourself, knowing-each-other, and knowing-together. Sophism, *tasavvuf*, *tefekür* (reflection) are among the issues that could be investigated elsewhere for further information.

According to knowledge science in Japan, *Ba* is recognized as the ‘place’, the shared context for relationship building and knowledge creation. It does have a physical, a relational, and a spiritual dimension. Moreover, it can be physical, mental, or technological (in the sense of information-communication technology) (Nonaka, Toyama, & Scharmer, 2001).

Again in Japan, “*Ma*” is the in-between-ness, or ‘interval’ that conveys both time and space as a conceptual and perceptual unity. It is a tension between things allowing for different patterns of interpretation, a constant flow of possibilities, awaiting or undergoing transformation by the availability of physical components and potential uses. Moreover, it is expected to be recognized in relationships, as degree of formality is articulated by measuring *ma* in place, time, social position, and age (Kerkhove, 2003; Hayashi, 2004).

As a significant social phenomenon, *ma* conceptualizes and perceives the interval and in-between-ness that comes with the unity of time and space, thus capturing also the spatial emphasis of *ba*. Depending on the context, *ma* works as a mediator for space and/or time, and refines a dichotomous situation, such as a sender and a receiver, in a communication setting. However, *ma* not only catalyses the dichotomies, but creates a meaning as it is utilized. Berque (1982) also points out that *ma* works as a free zone in a communication, where a sender puts consecutive signs and a receiver finds meanings out of the signs, whose

discrepancies are considered as a connection between the both.

### **3.1. Reflection and refraction theories for *Ba* and *Ma***

While reflection can be understood as seeing reality as it is, refraction complements this understanding as reconceiving and changing reality (Wankel, DeFillippi 2006). The importance of reflection and refraction for boundary-crossing interactions can then be argued (Medeni, Cook, Elwell 2007; Medeni, Iwatsuki, Cook 2008). With respect to this, *ba* and *ma* can be considered as technologies for reflective and refractive practice.

As a not only personal but organizational and social process, reflection is a significant concept for creating knowledge. It plays an important role not only for the epistemological production of sophia, but also the process of sophistication. Accordingly, we conceptualize that reflection and refraction are interlinked as social and natural phenomena. This meta-conceptualization also highlights the spiritual importance of such phenomenon in faith systems such as Christianity, Sophism, Taoism or Zen Buddhism.

Tihon (2006) asserts that knowledge emerges from the information system whose *attractor* is the *ba*, the *shared* place, context, or *basin*. This assertion is supported by Tihon's findings that the implicit and explicit domains of the organization's information system generally echo each other. Using Tihon's (ibid.) approach and analysis, it can also be suggested that beside the attractor of sharing, to a certain extent, the attractors of tension and rupture are also needed. As the implicit and explicit domains' echoing each other is not a one-to-one but refracted reflection due to tensions as well as contextual difficulties, Tihon's approach highlights domains that not only reflect each other and share a common basin, but also refract each other and differentiate an in-between-ness bound.

In addition to *ba*, such an approach would incorporate *ma*, which supports the context for dealing with tensions, refractions and ruptures that occur in the progress of time, besides the relations and reflections cultivated by the shared space. Working together and managed thoughtfully, the attractors of sharing, as well as tension and rupture, can turn the negative elements into positive aspects so that useful knowledge can emerge from the information system. The temporal and spatial in-between-ness, provided by *ma*, would provide suitable conditions for refraction, especially for those that can assume a role of bystanders, as discussed by Drucker and Maciariello (2004: 48).

While the real, virtual and mental space of *ba* matches very well with the concept of reflection, the in-between-ness and interval of time and space that *ma* provides can be used for the facilitation of refraction, as another important concept that complements reflection. In return, we can consider these concepts of reflection, refraction, *ba* and *ma* from the perspective of cross-cultural knowledge management. Then, we can further the concepts of refraction and reflection as cross-cultural refraction and cross-cultural reflection.

### **3.2. Cross-cultural refraction and cross-cultural reflection**

Cross-cultural refraction and cross-cultural reflection occur, when and where two or more knowledge systems encounter so that their living entities initiate a knowledge-creating process. Within this process, knowledge creation is initiated by the acquisition of not only extant but also new knowledge through cross-cultural reflection and cross-cultural refraction. The cross-cultural reflection for the acquisition of extant knowledge addresses the reflective learning and practice that generate apparently new understandings that are not

immediately related to specific existing knowledge although clearly they are based on what we know (Moon 2004). The cross-cultural refraction for the acquisition of new knowledge, addresses a more critical and creative type of reflection, for experiential learning and practice that facilitate emergent thinking to cross the boundary between different episteme as such reflection and new mindsets (Moon 2004, Uno 1999).

Below, the processes of cross-cultural refraction (EMMA Spiral) and cross-cultural reflection (ECUI Spiral) are discussed further, as special cases of knowledge creation, as in the phases of EASI Spiral (Umemoto 2004). Confirming the findings of other authors such as Holden (2002), Adler (2002), these processes specifically highlight the encounters between different knowledge systems that result in miscommunications and misunderstandings that are natural parts of any cross-cultural knowledge management.

Cross-cultural refraction is a frequent questioning of reality to get insights-out and outskirts-in. It is experienced individually or collectively, when and where cross-cultural interaction occurs. The cross-cultural refraction consists of the stages of Encountering, Miscommunicating, Misunderstanding, and Asking, as explained below:

- *Encountering*: People encounter other knowledges through individual and collective experiences of fluctuation and disturbance, again producing datum whose usefulness depends on cognitive competencies.
- *Miscommunicating*: The articulative processing of datum out of such encounters produces informations that are miscommunicated. This miscommunication mainly stands for the distortions in the information communicated via inter-personal utterances and/or non-verbal behaviors among people that are misinterpreted by each others, again depending on certain capacities of meaning misconstruction.
- *Misunderstanding*: The aggregating process of the informations out of such communication results in miscomprehensions. During this misunderstanding process, people wrongly sense-make for themselves as well as for each other. Again, this sense-making depends on certain cross-episteme competencies for managing different ways of understandings.
- *Asking*: The questioning process of knowledges generates wisdoms to be acted upon by the people. These wisdoms, in Socrates's terms, are knowings that one knows nothing, as people experience fluctuations in their taken-for-granted epistemic assumptions, realizing that what they know is partial or wrong.

At the outcome of the EMMA processes, the cross-cultural refraction leads to students' asking themselves as well as others, depending on their readiness for boundary-crossing that results in newer, even if not better, knowing for the people. These confronting new knowings can be confusing or contradictory, still, rather than hindering, they wisely enable the continuation of the flow and conversion of knowledge. As again wisdom, in Dewey's terms, consists of the ability to continue conversations within and among persons, rather than quest for certainty.<sup>6</sup> Now-here and then, refractive *ma* is the time-space in which such cross-cultural refraction occurs.

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<sup>6</sup> (Zhu, JAIST COE Seminar, Nov 2006)

Finally, the cross-cultural refraction facilitates the acquisition of fresh knowledge that can contribute to knowledge creation, when and where cross-cultural-refraction complements the cross-cultural reflection that facilitates the acquisition of extant but better knowledge. Thus, what the EMMA model of cross-cultural refraction leads to, “asking,” initiates the ECUI processes of cross-cultural reflection, turning the wrong and negative into the right and positive in a virtuous spiral.

As a complement to cross-cultural refraction, the cross-cultural reflection consists of the stages of Empathizing, Communicating, Understanding, and Inquiring as follows:

- *Empathizing*: As a consequence of asking oneself and others, people empathize the existence of other knowledges through experiences of individual and collective dwelling, producing datum whose usefulness depends on cognitive competencies.
- *Communicating*: The articulative processing of the datum from such experiences produces informations that are communicated. This communication mainly stands for the inter-personal utterances and/or non-verbal behaviors among people that are interpreted by each other, depending on capacities of meaning construction.
- *Understanding*: The synthesizing process of the informations from such communication results in comprehensions. During this understanding process, people rightly sense-make for themselves as well as for each other. Again, this sense-making depends on certain cross-episteme competencies for managing different ways of understandings.
- *Inquiring*: The further questioning process of knowledges generates wisdoms to be acted upon by the people. These wisdoms, in Dewey’s terms, consist of the abilities to continue conversations within and among persons, rather than quests for certainty.

At the outcome of the ECUI processes, the cross-cultural reflection leads to mindful inquiries that result in better knowing for the people. These comforting knowings can cooperate with or cultivate each other, enabling the continuation of the flow and conversion of the knowledge. Here and then, reflective *ba* is the space in which such cross-cultural reflection occurs.

Finally, the cross-cultural reflection facilitates the acquisition of extant knowledge that can contribute to knowledge creation, when and where it is complemented by the cross-cultural refraction that facilitates the acquisition of fresh knowledge.

### **3.3. A general modeling for cross-cultural knowledge management and learning**

In return, together with cross-cultural refraction, cross-cultural reflection can contribute to crossing the boundaries from the “reflection” to the “emergence of new mindset,” as an initiating phase of knowledge creation. In other words; the cross-cultural refraction (EMMA processes) and cross-cultural reflection (ECUI processes) models of cross-cultural learning are initial phases of the general EASI model of knowledge creation (Umemoto 2004), leading to the phases of Experiencing, Articulating, Synthesizing and Implementing, and resulting in the creation of knowledge at the end. This process of knowledge-creating phases occurs at reflective *ba* and refractive *ma*. However, as suggested previously, since refractive *ma* already contains reflective *ba*, it is enough to use refractive *ma*, while implicitly meaning reflective *ba*, as well.



From a more general perspective, such initial cross-cultural interactions correspond to the time-space boundary at the very beginning of knowledge creation, when and where, for instance, the first encounters between two different knowledge systems happen. These times and spaces highlight the chaotic and complex nature of the happenings, accompanied by, for instance, the densely aggregating confusions and conflicts. These complex and chaotic cross-cultural interactions frequently, iteratively interweave different cultures, as a result of and resulting in multiple beginnings and ends rather than one single beginning and end.

At these cross-cultural time-space boundaries, general theories may not apply sufficiently. Rather, models that can facilitate micro-level analysis can be more useful to address the delicacy of these beginnings, which are important and require special attention in any cross-cultural interaction at various societal levels such as gender and international relations. We hope the cross-cultural refraction and cross-cultural reflection models can contribute to such model and theory developments for cross-cultural knowledge-creation interactions. An example of such contribution is suggested below (Figure 2).

As a result of our research, in Figure 2, a nautilus model of (cross-cultural) knowledge creation and learning is suggested. The knowledge-creating spiral in this model emphasizes the cross-cultural interactions and created different knowledge (s). The Nautilus shell expands compartment by compartment, each of which represents a cultural unity in the model. The passage from one compartment to another, then, represents a cultural change that result in a new culture as a new compartment. Thus these passages between compartments also underlie cross-cultural interactions. Here it is assumed that each culture has one particular type of knowledge. So when there is a cultural change, knowledge type also changes.

As it can be also seen in the Figure 2, this cross-cultural knowledge-spiral expands through reflective and refractive interactions. Within the cultural unity of each Nautilus compartment, reflective interactions for learning and knowledge management are dominant. During the passages between different culture compartments, however, refractive interactions dominate the nature of such interactions. Following our line of argument for such modeling of cross-cultural learning and knowledge management, it can be suggested that reflection can improve knowledge but does not change its type, while refraction can change the type of knowledge(s). Such reflective and refractive interactions actually point out the spaces and times, where and when cross-cultural ECUI and EMMA spirals can occur, as underlying dynamics or special cases of a general knowledge creation and learning process.

The interactions among different cultural entities for (organizational) learning and knowledge creation, and the different knowledge types from these different cultural entities as a result from the cross-cultural interactions can be generalized such as  $K_1, K_2, K_3, K_n, \dots$  ( $K_i, i=\{1 \dots n\}$ ). Similar to cultural hybrids discussed by Holden (2002), each “n” represents a different culture, thus “ $K_n$ ” the knowledge of a different culture, as the cultural hybrid that cross-cultural interaction generate. Both reflection and refraction contributes to body of knowledge that can be represented by increases in fonts of  $K_s$ .

Thus, in conclusion, this nautilus model gives an illustration of cross-cultural knowledge management and learning. Supported by our research findings from literature review and

action research analysis, as well as our own contributions such as model development for theoretical implications, this model provides a good point to direct and finalize our research.

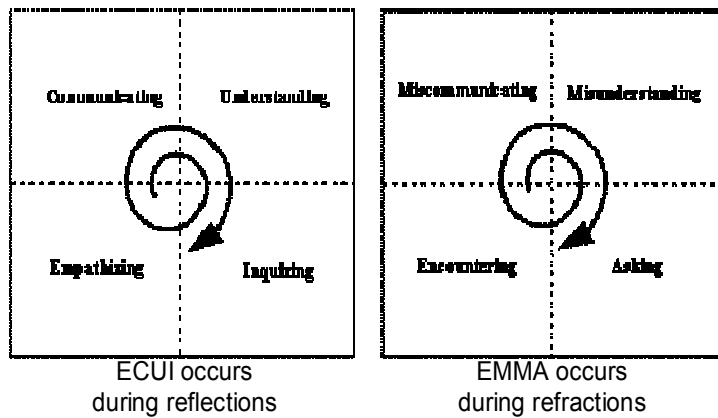
The resulting nautilus modeling for cross-cultural knowledge creation and organizational learning provides a conceptual base for developing not only the operations in the e-Government Gateway project in Turkey but (electronic) services and interactions in today's and tomorrow's knowledge society in general.

#### **4. CONCLUSION**

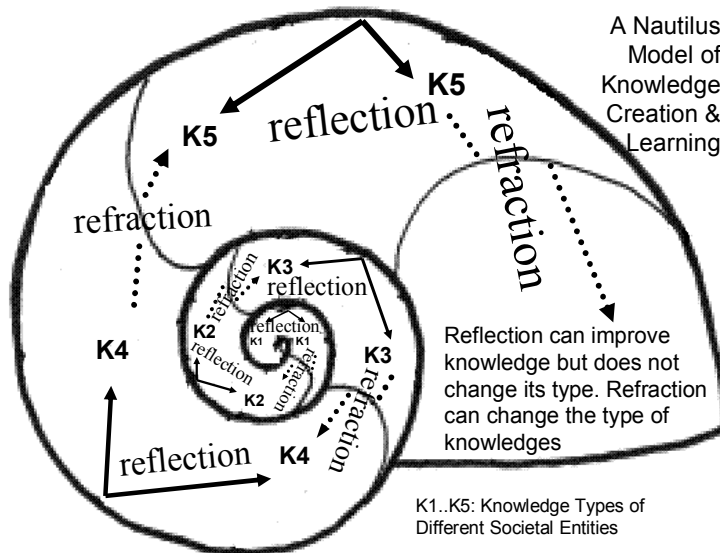
Contributing to the conceptualizations of knowledge-creating spiral, EMMA and ECUI spirals, nautilus model for cross-cultural knowledge creation and organizational learning can be a useful framework for explaining and guiding towards the emerging integrated and interoperable e-government interactions. Similarly, nautilus modeling can help us improve the e-Government Gateway project in Turkey.

Discussing the e-government operations in practice and developing our perspective in theory, we underline the inter-link between the theory and practice with respect to the present situation and future prospects in e-government, especially highlighting more integrated, interoperable cross-cultural interactions. At the end, the Figure 3 illustrates this inter-link between the nautilus model and e-Government Gateway project in Turkey. Rather than being specific to Turkish case, however, we hope this underlined interlink leads to further works, giving inspirations and insights to other researchers that can be useful for electronic government services in general, or for certain specific cases in other parts of the world.

Figure 2: ECUI and EMMA spirals as the underlying dynamics for the Nautilus model of cross-cultural knowledge creation and learning<sup>7</sup>

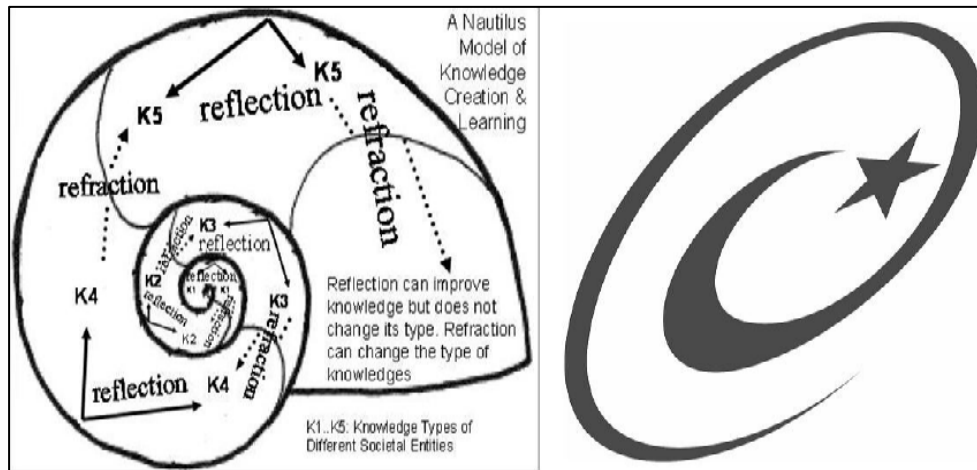


*EMMA and ECUI Processes as the underlying dynamics of the general Nautilus model*



<sup>7</sup> Medeni, T. (2008) Unpublished doctorate dissertation submitted to JAIST

**Figure 3: Nautilus Model and E-Government Gateway Project @ Turkey**



## BIBLIOGRAPHY

- Adler, N. J. (2002) *International Dimensions of Organization Behavior*, South-Western, 2002.
- Aktaş, Z. (1987) *Structured Analysis and Design of Information Systems*, Prentice-Hall, USA.
- Berque, A. (1982) *Vivre L'espace au Japon. Presses Universitaires de France, Kukan no Nihonbunka*, translated by Makoto Miyahara (1994), Tokyo: Chikuma Shobo (in Japanese).
- DPT (2008) *Bilgi Toplumu Stratejisi ve Eylem Planı 1. Değerlendirme Raporu*. Devlet Planlama Teşkilatı
- Drucker, P.F. & Maciariello, J.A., (2004). *The Daily Drucker*, Harper Business
- Hayashi, T. (2004). "Captured Nature and Japanese Way of Tolerance" in *MAJA Estonian Architectural Review*
- Holden, N.J. (2002) *Cross-Cultural Management: A Knowledge Management Perspective*, Financial Times
- Kerkhove, D. D. (2003). NextD Journal: ReRethinking Design Issue Two, *Conversation 2.3* [http://www.nextd.org/02/pdf\\_download/NextD\\_2\\_3.pdf](http://www.nextd.org/02/pdf_download/NextD_2_3.pdf)
- Medeni, T., Elwell, M., & Cook, S. (2007) "Immersing 'Digitally Deaf' into Games for Learning: Towards a Theory of Reflective and Refractive Space-Time for Knowledge Management" *BEYKON 2007*, Turkey
- Medeni, T., Iwatsuki, S., & Cook, S. (2008) "Reflective *Ba* and Refractive *Ma* in Cross-Cultural Learning" Eds. Putnik, G. D. and Cunha, M. M. *Encyclopedia of Networked and Virtual Organizations*, Idea Group References

Moon, J. (2004). *A Handbook of Reflective and Experiential Learning: Theory and Practice*. London: RoutledgeFalmer

Nonaka, I & Takeuchi, H. (1995) *The Knowledge-creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford: Oxford University Press.

Nonaka, I., Toyama, R., & Scharmer, O. (2001) Building *Ba* to Enhance Knowledge Creation and Innovation at Large Firms.  
[http://www.dialogonleadership.org/Nonaka\\_et\\_al.html](http://www.dialogonleadership.org/Nonaka_et_al.html) -

OECD (2006) *OECD e-Government Studies: Turkey* OECD

Tihon, A. (2006) *The Informational Attractors: A Different Approach of Information and Knowledge Management*

Umamoto, K. (2004) “Practicing and Researching Knowledge Management at JAIST” *Technology Creation Based on Knowledge Science: Theory and Practice JAIST Forum*, Japan

United Nations (2008) *E-Government Survey 2008 - From E-Government to Connected Governance* UN

Uno, Y. (1999) “Why the Concept of Trans-Cultural Refraction Necessary” *NEWSLETTER: Intercultural Communication* No. 35 November, 1999

Wankel, C. & DeFillippi, R. (2006) *New Visions of Graduate Management Education*. Connecticut: Information Age Publishing.