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KNOWLEDGE SHARING BY KNOWLEDGE FACTORY

Zoltán BARACSKAI PhD
Budapest University of Technology and Economics, Department of Industrial Management and Business Economics. Muegyetem rakpart 9 bld. T 48, 1111 Budapest, Hungary
baracskai@imvt.bme.hu

Jolán VELENCEI
Budapest University of Technology and Economics, Department of Industrial Management and Business Economics. Muegyetem rakpart 9 bld. T 48, 1111 Budapest, Hungary
velencei@imvt.bme.hu

Viktor DÖRFLER[*]
Budapest University of Technology and Economics, Department of Industrial Management and Business Economics. Muegyetem rakpart 9 bld. T 21, 1111 Budapest, Hungary
dorfler@imv t.bme.hu
Phone: +36-70-249-25-43

Abstract

The members of e-community are qualified on the partner basis (from whom he/she knows and where he/she passes the found knowledge). The knowledge is divided, not on the basis of organizational forms and standards. The organizational knowledge maps are mostly false inventories, as the stock-taking is possible only within the frameworks of other culture reliance. The Intelligent Portal contains artificial intelligence. First we use Doctus KBS shell to create knowledge-bases for particular decisions. Hard data are retrieved from databases and soft information from knowledge-bases. If we understand the matter of the web then we can use the interactivity to comprehend the new knowledge on the basis of Linux (free software) development conception. The easiest way to understand is to distinguish free pub-talk from free beer. Corporate University does not give away knowledge free, but we can freely talk about it or even modify it. This idea is based on following: everybody is free to access the knowledge shaped on the desk, to customize it, to spread either the customized or the desk-shaped knowledge. In the knowledge factory we realize the cooperation among experts on internet. Knowledge factory is more than a useful blend of newsgroup and forum.

Keywords: *knowledge worker, collaboration, intelligent portal, learning organization, knowledge sharing*

The culture of e-collaboration

There are many attempts to annex the e-corporations to the present organizational forms. These attempts are often due to changing diversified relations of particular phases of the process. In reality this is the new dimension of organizational forms. It is hard and unnecessary to mix them with the present organizational forms. The muddled hierarchy of linking appears; it cannot be built in even the most flexible known organizational form. Evolved relations run across the new unusual connections. Inside the organization the knowledge redeploys. Depending network evolves that is both flexible and stabile. Flexibility is caused by the possibility of connecting and disconnecting (anytime, anyone, anything). Stability is generated unbreakable and impossible to abolish.

It is different within the organizational culture, where it is necessary to mix the present with the new e-culture. With a help of Hofstede's four cultural dimensions (Hofstede, 1985), the organizational culture is expressible. We can even comparison it to representative values of certain dimensions. There are serious consequences for the multicultural business organizations functioning in the margin among organizational cultures. With the emerging e-corporations the Hofstede-model is not only broaden with a new dimension, but the present ones alter too. The altering is explained by measuring the power distance dimension. Within the organization the "keeping distance" among leaders and underlings becomes complicated and immeasurable. The information flow in e-cultures fastens, the virtual workgroups evolve. Frictions reduce; inward

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[*] Corresponding author.

communication evolves which helps the collaboration. Instead of information swapping we talk about information sharing, that is to say new value conformation. In web community every participant is constantly giving and getting.

"By sharing your knowledge, you gain more then you lose. Sharing knowledge is a synergistic process – you get more out than you put in. If I share a product idea or a way of doing things with another person – then just the act of putting my idea into words or writing will help me shape and improve that idea. If I get into dialogue with the other person then I'll benefit from their knowledge, from their unique insights and improve my ideas further." (Gurteen, 1999)

The correlation is basis for the new value appearance. Creating new values is the essence of collaboration. Within the e-corporations the relations exceed the founders, the power positions, standardized instruction routes, so it is not easy to capriciously liquidate them. For example it is trivial to ask the employee to leave his/hers visit card collection when quitting the job. It is naive to think that relationships suddenly die out. It is vain to put these sanctions into the contract, as the relations will continue to develop in some form. The new culture will make these arrangements ridiculous. The collaboration may be added as a new viewpoint to the Hofstede model. So along the trust-mistrust extremes, many shades show up. Goleman talks about the art of collaboration, where the EQ is vital. (Goleman, 1998) We learn from each other. We also need social intelligence and not only the cognitive capabilities.

The web made great changes in the business world, yet the main characteristic is that only the traces of possibilities are being used. Electronic relations have an impact on present communication culture. Not only personal, face to face communication is essential for a relationship, though the building of trust is as important on the web. The conversation became independent of space and time.

The members of e-community are qualified on the partner basis (from whom he/she knows and where he/she passes the found knowledge). They are the gold-collar workers. (Munk, 1998) The scores knowledge is divided, not on the basis of organizational forms and standards. The organizational knowledge maps are mostly false inventories, as the stock-taking is possible only within the frameworks of other reliance-culture. In the future the communication will no longer be the swap of information, but creation of knowledge, using the possibilities of the web interactivity. Today we can learn anything that we find, if we find it and if it fits our head. The interactivity facilitates such creation of knowledge within the e-community, which from day to day rearranges the meta-patterns. The communication with less standardized univocal signs, with countless purport pictures will be the fruition of Chinese saying "one sign – thousand pictures". In past years we have experienced that Doctus animations leading an attendee's acquaintance thinking, are more often used than the neighboring text of eighty-thousand words. On software presentations around the world the product without demo is unmarketable. People want to see their modus operandi, to acquire new information on basis of his/hers personal present knowledge, namely to create it.

Illustration is vital for communication. Spoken or written words create pictures through metaphors. In near future the virtual enterprise–exhibitions will raise greater confidence in inquisitives. The inquisitives will picture their enterprise as well as its products and its services similarly to a software demo, as they want to see it not as the PR envisages. Enterprises will realize that many roads lead to the cognition. In a culture based on trust everyone endeavors to offer more and more pictures of ones enterprise. This way the suppliers, the customers and the alliance do not feel each other misled, as it would lead to sure deficit.

The culture determines the sense of observation. I see in other what I want to see - I believe in what I want to believe. Enterprises must pay attention to this, while planning their electronic presentation. The following advice is a proper illustration: "Boldly make a couple of grammar mistakes, it will seem humane; none know all the rules." It is not hard to detect the idea from USA, as it is not hard to discover the consequences for a Hungarian enterprise, if a "pro-grammar" site-visitor observes a grammar mistake. In Germany the enterprise home-pages present the building and the leaders, to build confidence. Affection for familiar pictures is strong.

The weakest point of the web is the search. Modern solutions basics are framed conceptions through old glasses, approaching the problem through keywords and topics. Until the birth of a new conception we are to use these. News spread fast, the origin, the route and the purport is incontrollable. This is a modern trouble, which may end in another culture. The interactivity build-up will pitfall the swindlers.

Today it seems that Internet-reader and Internet-searcher are becoming new professions. Mediator between the searcher and the searched is the great creator of accessibility. Can we name it e-agent? There was a time when only the professional drivers drove cars and in the village only two, three men could write. Time will come when everybody will be able to handle the Internet. It does not mean that everyone will have the same attitude towards it. Some who drive may sit in a taxi or can write and rather order a speech. This is all lightened by the fast learning ability of the cellular-phone users. It seems fantastic how some who could not complete the basic typist course are able to type on dozen fingerboards of their phones while driving. The "typist-culture" is global; it is time for globalization of "picture-recognitor" culture.

Intelligent Executive Portal

Modern business decision maker works under the avalanche of information. The portal filters the information. It is wrong to ask: Which information the decision maker needs from the available? The proper question is: Which information is needed to make a particular decision? The intelligent Executive Portal (i-EP) contains artificial intelligence. First we use Doctus knowledge-based expert system shell to create knowledge-bases for particular decisions. Hard data are retrieved from databases and soft information from knowledge-bases.

Four monitoring modules are included in i-EP: the production process, the customer evaluation, the supplier evaluation, and the employee evaluation. Ergonomics is of crucial importance for portals. Therefore we pay attention to the number of portlets and their interconnections.

The i-EP features:

1. **Personalization** (customizing to a person) is not to be mistaken for group-customization. Personalization is role-based, defined in three dimensions. The first dimension is the position of the user. The second is the phase of the process followed by the user. The third one is the size i.e. the value of the user's job. The access levels for deputing tasks and/or decisions, as well for input and/or deleting data are also managed here.

2. **Integration** is not to be mistaken for parallel usage of different applications. The i-EP is integrated with the calendar, with databases and with knowledge-bases. Integration with databases is necessary for automated data mining. For knowledge-bases it is similar, as a change of soft information or decision rule may result in change of the evaluation, which must immediately appear in a portlet.

3. **Actualization** of the information in databases happens out of the portal. The primer interface of actualization is the calendar. It is important to stress out that the calendar offers predefined concepts to avoid mistyping and duplication. The basic entity of the input is the "job" to which customers, suppliers and responsible are assigned. The essence of the portal is real-time reporting, so only the planned and the realized time of the events are recorded.

The i-EP functions:

1. The **collaboration** of users is an essential requirement for all portals. It mustn't be presumed that knowledge and data reside where they are to be used. There are three ways to connect the places of occurrence and usage. The first is a simple search based on keywords. The second is electronic messaging. The third is a novelty of i-EP, the so called web consulting, where the users build onto the previously systematized knowledge, while Doctus helps the preserving of logical consistency.

2. The i-EP supports the time and capacity **planning**. It is of crucial importance to connect this function with user rights. In other words there have to be clear rights for modification of the previously assigned tasks. The capacity planning is to be connected with evaluation of contributors and/or suppliers.

3. Doctus supports every particular **decision** with a knowledge-base. Therefore it is important to separate the user interface from the building of the knowledge-base. The user interface handles different user access levels while the knowledge-base can be modified only by the decision maker in the domain.

The knowledge engineer uses the Doctus shell to define attributes and values, to define and modify rules, to modify attribute properties including configuration of cluster analysis (number of expected clusters and their boundaries). The structure of the knowledge-bases is typified on the top 2 levels. This means that for every knowledge-base connected to a portlet, the output (decision attribute) is the "action" and the next level (direct factors) has two attributes the "planned" and the "realized" state. The title of a portlet is the name of the attribute; the content of it consists of the case names with the assigned values. If changes in the databases and/or knowledge-bases cause changes on the top 2 levels, the portlets update automatically.

The knowledge share

In knowledge-oriented organizations the conventional relationships between generations have radically changed. Expertise is not anymore just in the heads of elder, experienced co-workers, but also in young people, open to new technologies and new solutions. This can especially cause problems if co-workers have to learn new things from each other. The web provided learning (does not claim personal presence) neutralizes communicator's personal style; thereby it helps in softening the prejudice towards youth, their values or solutions. Hereby such a learning field evolves where people focus on essential elements. It becomes irrelevant who provides the idea.

If we understand the matter of the web then we can use the interactivity to comprehend the new knowledge on the basis of Linux (free software) development conception. (Raymond, 2001) The easiest way to understand is to distinguish free pub talk from free beer. **Knowledge Factory** does not give away knowledge free, but we can freely talk about it or even modify it.

This idea is based on following:

- Anybody can freely access the knowledge shaped on the desk.

- Anybody can freely customize the knowledge shaped on the desk.

- Anybody can freely spread either customized either the desk shaped knowledge.

"We are told by many of the gurus that rewards must be put in place to encourage knowledge sharing. I've even heard it suggested, that to encourage knowledge sharing, that an ideas database should be created and that people should be paid for their contributions - presumably regardless of quality or whether the ideas are brought to fruition! I think this is plain crazy. **I don't believe you can make people share by overtly rewarding them. We are not laboratory pigeons. Stimulus-response does not work in complex systems. Human beings are motivated by more than just money.** Yes, ensure appropriate rewards are in place if you must but I feel it's better to ensure that disincentives to sharing are removed." (Gurteen, 1999)

The i-EP offers the Knowledge Factory, where the cooperation among experts on Internet is realized. Knowledge Factory is a big office, where the knowledge creation happens at the *desks*. Each desk has its topic. *Chief Knowledge Officer* decides on opening

or closing the game at certain tables and chooses the moderators. *Moderator* decides about the participants and their access levels (*author*, *discussion partner*, *visitor*) at a particular desk. He starts the work with the Prototype, and decides on locking the certain models and opening of the new ones.

Authors are experts who create new knowledge. They contribute with their *models* in form of Doctus Knowledge Base (*.dkb file). Authors and discussion partners can have debates in the connected forum. Models, enclosed shows (slides, knowledge-bases, Word documents, Excel sheets, html pages etc.) and forum discussions can be seen by the visitors as well.

Barrier

The biggest barrier in front of the online corporate university is the thinking of straight-laced instructors and programmers. We tell the following story to the web programmers:

> *Twenty five years ago then 28 year old department chief who studied in the USA told us the beginners: "Let's make a computer render account of companies, and on the end of the paper congratulate the ones who had a birthday in the previous month" „Why?" – We asked eagerly. Because we can do it properly, people can monthly see that it is working and that it is addressed to them. Now he is making well known software, and still he doesn't ask the costumer questions on which they can't give answers.*

We trusted him. Now I understand too. I hope that future web programmers and instructors will understand that it is possible to work good and to create good at the same time.

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