Chapter 15
DYONIPOS:
Proactive Knowledge Supply

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ABSTRACT

Traditional knowledge management is often combined with extra work to recollect information which is already electronically available. Another obstacle to overcome is to make the content of the collected information easily accessible to enquiries, as conventional searching tools provide only documents and not the content meaning. They are often based on the search for character strings, usually resulting in many unnecessary hits and no or less context information. The research project DYONIPOS focuses on detecting the knowledge needs of knowledge users and automatically providing the required knowledge just in time, while avoiding additional work and violations of the knowledge worker’s privacy, proposing a new way of support. This knowledge is made available through semantic linkage of the relevant information out of existing artifacts. In addition DYONIPOS creates an individual and an organizational knowledge base just in time.

THE “KNOWLEDGE MANAGEMENT PROCESS MODEL” ACCORDING TO PROBST

Knowledge is a particular property which increases through division. Knowledge loss implies a high risk for organizations, making it very important to keep the existing knowledge. It can be classified into two types, explicit and the implicit knowledge. Explicit knowledge is knowledge which has been documented and is easy to communicate. The implicit knowledge is the knowledge which can be found in someone’s head. This knowledge cannot be simply or formally described. Making existing
explicit and implicit knowledge useful is one of the major objectives of an organization. In the past, several knowledge management tools were developed to structure knowledge and to make knowledge transparent and available.

The “Knowledge Management Process Model” (Probst, Raub, & Romhardt, 2006) of Gilbert Probst has many common components of a management process. Probst builds up knowledge management on six core processes and completes these processes through a start and an evaluation process. The component definition makes it possible to structure the knowledge management process into different logical phases, making it possible to intervene within a process where some knowledge lack had occurred. Hence the component definition supplies a raster to search for the causes of knowledge problems. The core processes are:

- knowledge identification,
- knowledge acquisition,
- knowledge development,
- knowledge distribution,
- knowledge storage and
- knowledge application.

The process starts with the definition of knowledge objectives that gives the knowledge management a direction and ends with the evaluation and measurement of the gathered knowledge. To define the knowledge objectives, it is important to identify the knowledge which is important for the future, defining it as the so called “critical knowledge”. In the first process step called “knowledge identification”, the existing internal and external data and knowledge sources as well as the abilities are localized and evaluated, relating it to their importance for a particular task handling. This is possible through the acquisition of so called “yellow pages” such as knowledge landscape, where it becomes obvious who owns which knowledge and how to gain new knowledge. Gilbert Probst and Kai Romhardt state that without human resources only through technology the necessary transparency of an organization cannot be established (Probst, Romhardt, n.d.). Humans need to transfer the knowledge using, for example, discussions via knowledge platforms. Within the “knowledge acquisition” process an organization collects knowledge from other businesses, stakeholders or external knowledge owners because through the flood of information, organizations are not able to allocate the know-how internally. The knowledge development component is based on the research of processes which are responsible for the creation of new abilities, new products, better ideas and more efficient processes. The knowledge needs are then linked with the knowledge sources during the “knowledge distribution” process e.g. to transfer best practice experiences. Through the sub-process “knowledge storage” it is ensured that the identified knowledge which is important as well as experiences from the application environment are registered, then becoming available for further problems and tasks. In the “knowledge application” process an observation of knowledge is used in business processes in order to solve particular problems. The organization has to assure that the gathered knowledge will be provided in an appropriate manner and timing. Thereby the data quality plays an important role, being supplied using user-friendly interfaces resulting in reliable data. The final step includes the knowledge evaluation which is responsible for the continuous adjustment between the knowledge objectives and the evaluated results of the sub-processes. This evaluation is very difficult because no consensus is reached on a consistent measure.

The knowledge management interpreted according to Probst and Romhardt proposes additional work for the knowledge workers because they have to search for the knowledge they need. They have to know where they can find this knowledge and how to access it. First the existing knowledge has to be collected and should be structured before the knowledge can be accessed. These process steps also create additional work.