



# INFORMATION AND KNOWLEDGE MANAGEMENT RESOURCES IN THE ACADEMIC FIELD

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## INTRODUCTION

The importance of this topic is based on the knowledge that information is a significant factor of effective activity at contemporary universities. Information determines the level, attractiveness, and quality of university processes and it is a condition for quality education and research activity. Research and education represent the most efficient investment into development of production factors which can be evaluated in two forms. Firstly, they support innovation and improve efficiency of the formation process of values in education and research organizations. Second, they create conditions for organizational self-development. The suitability and efficiency of information and knowledge management must be proven by the amount and quality of outputs. The knowledge should be understood as a universal advantage which can help to simplify the structure of support systems of science and research. Knowledge management can be characterized as a process which supports the integrated access and application of information activities and sources in research.

## UNIVERSITY MANAGEMENT

**University management** includes the activities focused on goal setting and the university's role, their manifestation and evaluation. These activities, which have an information-communication character, are used by university employees (academic workers, management, teachers and employees) and students (operating subjects) to influence the process and development of educational activities in research areas and other activities (operating objects), with the aim of improving output effectiveness and quality [4].

In the academic area there are information processes, excepting various economic systems, in which the dominant task is the process of reaching, processing, publishing, storing and applying information from areas of education, research, foreign relations, and public relations. These activities are organized by the faculty departments of divisions:

- academic library,
- publishing house,
- department of public relations,
- registrar's department,
- department of research and international relations.



The activities of these departments are summarized by the term **academic activities**. More specifically, it is the integration of information processes of collecting, analyzing, operating, evaluating and distributing important information supporting faculty management in decision processes. The quality of the decision processes depends on the information's integrity and relevancy. This integration causes:

- an increase in the quality of the actualization process, and
- an increase of work productivity and effectiveness [6].

A complex view of academic activity management is not as a work organization according to individual operations, but rather activity integration with the main product being one block of information – **process reorganization**. Information has to have full value and directness. We can talk about a change from „classic information organization“ to „**information organization orientated in an informative way**“[2]. We have created an environment of information management to form information with concrete value for decision making by the university (faculty) management in areas of:

- education,
- research,
- international relations,
- public relations.

## INFORMATION MANAGEMENT

Information management of academic activities must be able to create a clearly formed frame of meaning interpretation that is important for faculty and employees. A knowledge frame helps with understanding organization [1]. At the faculty (university) there is no traditional division of activities management (department of education, research, public relations) and independent organization units (academic libraries). The focus is on information processes of academic activities understood as **complex and self organizing system** [3].

The cooperation of selected academic activity areas can be declared in various faculty processes. The department of research collects important information for evaluation and faculty accreditation. Document preparation for evaluation by faculty committees is connected with these departments. It depends on the fact that nearly 70% of information needed for faculty evaluation comes from these departments and academic libraries. The academic library has special tasks: preparing and collecting science-information, bibliographic records, and coordination and advising of the faculty (university) working place. It is also responsible for evidence of publications and references. When the faculty has an active information and communication system connected with the library-information system, it is able to integrate information on these areas:

- increase of qualifications,
- grant success,
- publication activity,
- references for publications of faculty employees.



The importance of information management depends on its integration function. In the academic area it can create appropriate structures, rational standards and information systems providing information which will be „organized in the manager style“.

All information relating to the activities of individual faculty departments can be considered as an element of an integrated information system, which means that all components influence each other and the information system enters into interaction with other faculty subsystems. To ensure the ability of information system communication it is necessary:

- to analyze the information system (whose and what information are needed),
- to determine existing information sources,
- to support information processing and communication.

Through system operation design of information there results:

- addition or substitution of existing sources,
- elimination of redundant elements,
- avoidance of duplicity,
- reduction of information overloading,
- integration of all sources to reach the required effect.

Signs of information management in the academic field:

- must be as support for strategic and tactical tasks of the organization (faculty)
- must be identifiable as steps in the chain of the process in the information organization
- must present a presumption for the next steps of decision-making and processing
- must serve in the process cycles of needs for identification of necessary information (useful, meaningful)
- present an organizing information flow in the information system.

The information and communication system of the faculty has become a group of programmes created separately while solving everyday problems, which is completely undesirable in today conditions. The existence of integrated information systems are needed to provide maximal support for today's and the future's faculty tasks.

The outputs of information management in an academic environment can be the basis of not only an electronic, but also a functional connection of faculty departments, and they can increase the communication possibilities and access to large information amounts at home and abroad.

Information and knowledge management is a subsystem of faculty management presenting a continuous, repeating activity file made in the system of information structure focused on management. The task is (with use of the most progressive information technologies) to secure other elements (subsystems) of management organization by the required amount of relevant information in a certain timeframe. It supports the creation of individual and clear decisions for operation leading to fulfillment of organizational aims. Continually, knowledge is formed to evaluate the quality of activities and organizational products and to formulate the management strategy of repeated organization processes.



## KNOWLEDGE MANAGEMENT

The set of activities connected with acquisition, innovation, and distribution of knowledge, as well as knowledge protection represents **the basis of knowledge management**.

One condition for creation and application of knowledge potential is research and education – it is the basic university task. The following are the basic activities of knowledge management in the conditions of the academic field which present **the structure of knowledge potential**:

- acquisition, selection, modification, and knowledge description,
- knowledge distribution (teaching process),
- learning and use of knowledge,
- innovation and reproduction of knowledge,
- creation of a knowledge file – knowledge potential.

The quality of an organization's knowledge potential and the intensity of its development is closely connected with information management. The advantage and efficiency of knowledge management must be proven by the amount and quality of outputs. The quality of university education will always need a quality information system for the education and research process [5].

When we understand knowledge management as a part of information management with the function defined as rational creation and application of information, and as an organization of information structures, then this is proof that implementation of knowledge management is a result of practical and theoretical change of service paradigm in the academic area.

The specialization of education in knowledge management has a strategic meaning with the following basic components:

- information systems, information and telecommunication infrastructure,
- acquisition of information and management of its contents,
- sharing of information and knowledge,
- application of information and knowledge.

In the academic area it is important to identify **the strategic knowledge** which is necessary for:

- the quality preparation of graduates to perform their jobs,
- the definition and creation of a prospective research-pedagogical faculty profile,
- the formation of self development and perspectives of the education institution.

**An information audit** supports the quality and application of a university knowledge system on the border between information and knowledge management. It helps to provide efficient information applications regardless of the origin of information (some are formed in organizations and some are gained from external areas). It contributes to reaching one common aim, to keeping values and the expression of a unique organizational identity. The information audit is therefore understood as an analysis of information flows and exchange among subjects of a particular organization, and it helps



to reach a total image and identity of the company. The audit has an internal application and it presents a contribution to outputs for knowledge management of the institution.

Knowledge management presents the systematic acquisition, analysis, synthesis and sharing of knowledge and opinions which can enable **the reduction of risk in decisions and processes**. In a wider sense, knowledge management can be characterized as a process which supports and allows integrated access and application of all information activities and sources by all phases of information processes. It is a process of application of knowledge and experience from the education process and use of “extrasensory perception” (intuition, expert estimation, etc.).

The continuous transfer of society to a knowledge society will force **the transfer of information workplaces into knowledge workplaces**. The maximal use of the knowledge potential of all employees of an organization, external information sources, and application of knowledge management will be a basis of provided services of a knowledge orientated organization. **Data and information** are worked out with information systems in organizations; then they are concentrated into databases and distributed via information and communication technologies. **Knowledge** is formed by humans and based on information which is tested and proven. There is also an attempt to find correlations, non-traditional connections and the creation of individual know-how. The aim of the work of a knowledge orientated organization will be the provision of evaluated information to the top management in various solution designs.

## CONCLUSION

Integration of information contents into knowledge is one reasonable and real vision for the academic area. Information technologies and the requirements of users for complex information create a natural pressure to secure information in the shortest time and on the highest level of efficiency and relevancy. The implementation of knowledge management presents a new activity paradigm of the academic area. This effort is orientated also on the management of workplaces. It means not only information concentration, but also that knowledge concentration is important. Knowledge concentration includes only that which is related to operations (processes) in the academic area. It confirms that it is not necessary to gain information, but also to work with it according to the particular task.

**Implementation of knowledge management** can be done on different levels of the information process. It is expected that forming and implementation of knowledge management into an activity of academic workplaces will increase activity efficiency. The changing visions of academic workplaces are characteristic or connected with the word integration – integration of contents and knowledge, an orientation to the user and personification as a key to **valuable activity outputs of the academic processes** [5].

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