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# INTEGRATED INFORMATION

International Conference on Integrated Information

Kos, Greece      September, 29 – October, 3 2011

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**All papers have been peer-reviewed**



**Piraeus, Greece, 2011**

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# **Preface: Proceedings of the International Conference on Integrated Information (IC-ININFO 2011)**

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## **Aims and Scope of the Conference**

The International Conference on Integrated Information 2011 took place in Kos Island, Greece, between September, 29 and October, 3, 2011. IC-ININFO is an international interdisciplinary conference covering research and development in the field of information management and integration.

The conference aims at creating a forum for further discussion for an Integrated Information Field incorporating a series of issues and/or related organizations that manage information in their everyday operations. Therefore, the call for papers is addressed to scholars and/ or professionals of the fields of Library and Archives Science (including digital libraries and electronic archives), Museum and Gallery Studies, Information Science, Documentation, Information Management, Records Management, Knowledge Management, Data management and Copyright experts the latter with an emphasis on Electronic Publications. Furthermore, papers focusing on issues of Cultural Heritage Management and Conservation Management are also be welcomed along with papers regarding the Management of Nonprofit Organizations such as libraries, archives and museums.

One of the primary objectives of the IC-ININFO will be the investigation of information-based managerial change in organizations. Driven by the fast-paced advances in the Information field, this change is characterized in terms of its impact on organizations that manage information in their everyday operations.

Grouping emerging technologies in the Information field together in a close examination of practices, problems and trends, IC-ININFO and its emphases on integration and management will present the state of the art in the field. Addressed jointly to the academic and practitioner, it will provide a forum for a number of perspectives based on either theoretical analyses or empirical case studies that will foster dialogue and exchange of ideas.

## **Topics of general Interest**

Library Science, Archives Science, Museum and Gallery Studies, Information Science, Documentation, Digital Libraries, Electronic Archives, Information Management, Records / Document Management, Knowledge Management, Data Management, Copyright, Electronic Publications, Cultural Heritage Management, Conservation Management, Management of Nonprofit Organizations, History of Information, History of Collections, Health Information

## **Symposia**

The Conference offered a number of sessions under its patronage, providing a concise overview of the most current issues and hands-on experience in information-related fields.

- Symposium on Integrated information: Theory, Policies, Tools
- 4th Symposium on Business and Management and Dynamic Simulation Models supporting management strategies

- Session on Open Access Repositories: Self-archiving, Metadata, Content policies, Usage
- Session on Evidence-Based Information in Clinical Practice
- Session on Business Management and Communication Strategies supporting Decision Making Process in Tourism Sector
- Session on Electronic Publishing: A Developing Landscape
- Session on Information and Knowledge Management
- Session on Information Content Preservation as Outcome of Conservation of Cultural Heritage: Ethics, Methodology and Tools
- Session on Advances Information for Strategic Management
- Session on Information History: Perspectives, Methods and Current Topics
- Session on Divergence and Convergence: Information Work in Digital Cultural Memory Institutions
- Session on Contemporary issues in Management: Organisational Behaviour, Information Technology, Education & Hospital leadership.

The wide range of aspects that the sessions covered, highlighted future trends in the Information Science.

### **Paper Peer Review**

More than 300 papers had been submitted for consideration in IC-ININFO 2011. From them, 91 were selected for presentation, after peer review in a double blind review process. The accepted papers were presented at IC-ININFO 2011.

### **Thanks**

We would like to thank all members that participated in any way in the IC-ININFO 2011 Conference and especially:

- The famous publishing house Emerald for its communication sponsorship.
- The co-organizing Universities and Institutes for their support and development of a high-quality Conference scientific level and profile.
- The members of the Scientific Committee that honored the Conference with their presence and provided a significant contribution to the review of papers as well as for their indications for the improvement of the Conference.
- All members of the Organizing Committee for their help, support and spirit participation before, during and after the Conference.
- The Session Organizers for their willing to organize sessions of high importance and for their editorial work, contributing in the development of valued services to the Conference.
- PhDC Marina Terzi for her excellent editorial work, contributing in the production of the Conference proceedings.

## CONFERENCE DETAILS

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Dimitris Kouis, Greek Ministry of Education, Lifelong Learning and Religious Affairs  
Dionysis Kokkinos, National Technical University of Athens

## KEYNOTE SPEAKER



Professor Amanda Spink

Professor Amanda Spink has published over 340 scholarly journal articles, refereed conference papers and book chapters, and 6 books. Many of her journal articles are published in the *Journal of the American Society for Information Science and Technology*, *Information Processing and Management*, and the *Journal of Documentation*. She is Editor of the Emerald journal *Aslib Proceedings*. Amanda's research has been published at many conferences including ASIST, IEEE ITCC, CAIS, Internet Computing, ACM SIGIR, and ISIC Conferences. Her recent books include *Information Behavior: An Evolutionary Instinct* and *Web Search: Multidisciplinary Perspectives*, both published by Springer. Amanda's research focuses on theoretical and empirical studies of information behavior, including the evolutionary and developmental foundations. The National Science Foundation, the American Library Association, Andrew R. Mellon Foundation, Amazon.com, Vivisimo. Com, Infospace.com, NEC, IBM, Excite.com, AlltheWeb.com, AltaVista.com, FAST, and Lockheed Martin have sponsored her research. In 2008 Professor Spink had the second highest H-index citation score in her field from 1998 to 2008 [Norris, M. (2008)]. Ranking Fellow Scholars and their H-Index: Preliminary Survey Results. Loughborough University, Dept of Information Science Report].



PROF. GEORGIOS GIANNAKOPOULOS

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# Special Libraries as Knowledge Management Centers

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**Abstract:** *Nowadays, special libraries have the potential to meet the challenges to transform into knowledge management centers in their parent organizations. The required steps to implement the project and its components are illustrated. Both the parent institution and the special library benefit from the KMC.*

**Keywords:** *Special libraries, Knowledge management, Knowledge management center.*

## I. INTRODUCTION<sup>2</sup>

In the current economic climate special libraries are vulnerable to face the consequences of their company's economic constraints. They are candidates to close in cases of downsizing, reduction and budget cuts and staff movement.

However, in this ever-changing environment new opportunities, such as knowledge management, emerge. Special libraries are given the chance to reconsider their status as information centers and pursue the new role of the knowledge management center in the organization.

## II. SPECIAL LIBRARIES

### A. Meaning

*Special library* is the one which is not public, nor academic or school library. It emphasizes on a specific or on a bundle of relevant topics and reports to its parent institution: business, industry, government, private companies, not-for-profit organizations and associations.

The Special Libraries Association (SLA) defines *special librarians* as 'information resource experts, who collect, analyze, evaluate, package and disseminate information to facilitate accurate decision-making in corporate, academic and government setting'.

The SLA was founded in 1909 at Bretton Woods, New Hampshire under the mission to promote libraries engaged in the information services to business, industry and the government, through learning, advocacy and networking initiatives. The recent declaration of the SLA Alignment Project is 'Advancing Knowledge: our members are knowledge leaders who actively contribute to and drive the success of their organizations'. It is evident that the emphasis shifts from information services to building the knowledge culture of the organization.

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<sup>2</sup> This paper is based on the author's book: *Special Libraries as Knowledge Management Centres*, Chandos Publishing, Witney, Oxford (2011).

### B. Characteristics and Services

The special library is 'managed by experts ... on a topic to which the library is devoted,' in contrast to the traditional library which is 'for the reader of the polite literature' (Dana, 1910). The nature of collections, services, clientele and subject coverage distinguish special libraries from others.

They are user-centric institutions and their main feature is the personalized quality services to expert patrons: they provide the right information to the right people at the right time to take the correct decisions ('just-for-you' model). The focus is 'just-on-time' and not 'just-in-case' information.

Special libraries adhere to the mission and goals of their parent organizations. Their collections comprise various formats of materials, print and the 'grey literature', namely, the unpublished corporate material (technical and research papers and reports, patents and internally produced documents). They add value to their institutions by saving time to the researchers and by providing the right information, and knowledge to satisfy information needs.

Special librarians cannot do what they want to do or what they do well, but they must do what the clients want and play different roles for different customers (Hawkins, 2011).

## III. KNOWLEDGE MANAGEMENT

### A. Knowledge vs. Information and Data

*Sharing knowledge is power.* *Knowledge* is the organization's biggest intellectual asset. It is a complicated, intellectual activity, produced in human minds. It is based on the individual's experiences, education, cultural and socio-economical background. On the contrary, *data* is a sum of raw, unrelated, scattered, unprocessed issues, facts, events, symbols and numbers which is meaningless per se. Data is the basis for the creation of information. *Information* is analyzed, organized and codified data that are processed to create new knowledge.

Hence, knowledge derives from information, as information stems from data, but we obtain knowledge from individuals.

These days, the basic economic resource of the society is knowledge and not capital and the society is oriented to the knowledge economy.

Knowledge is divided into:

- *Tacit*: hidden in human brains, difficult to articulate, uncodified, unstructured, personalized and shared through person-to-

person communication, depending on the owner's willingness to express and share it

- *Explicit*: codified, stored, explained, documented, communicated, transmitted, disseminated through IT and recorded for retention for future generations.

### **B. Knowledge Management: Definition**

*Knowledge management* (KM) is the sum of learning processes which are associated with the exploitation and sharing of existing human knowledge, using the technologies and the corporate culture to enhance the organization's intellectual capital (Jashapara, 2005).

KM, as an interdisciplinary model, is tackled from an information systems perspective, a human resources or a strategic management perspective. It mainly pertains to enterprises because it deals with all aspects of knowledge and chiefly involves the people of the organization. In the organizational setting, KM refers to practices of generating, capturing, collecting, disseminating and reusing knowledge internally created.

KM discerns from information management which is the methodology concerned with the acquisition, retrieval and use of information to produce knowledge.

### **C. Characteristics of Knowledge Management**

The core features of knowledge management are:

- *People*: the protagonists, the driving force and the core element of KM. KM lives on the involvement of people as creators, transmitters, users and re-users of knowledge who shape human networks and generate new knowledge.
- *Knowledge transfer and sharing*: tacit and explicit knowledge become useful through *dialogue*, as the pedagogical 'Socratic' method, where the master who teaches his students pulls the answer to a query out of the student's mind. Similarly, the success of a KM initiative depends on knowledge sharing during the creation of the common knowledge-base in the organization.
- *Codification*: the organizational knowledge is codified to become accessible and recordable for re-use.
- *Mutual trust and confidence*: they are fundamental factors for the expression of knowledge. The knowledge holder must feel secure and confident to articulate tacit knowledge.
- *Technology*: it is a tool for the creation of knowledge. KM system heavily relies on technological tools and infrastructure.

## **IV. SPECIAL LIBRARIES AS KNOWLEDGE MANAGEMENT CENTERS**

### **A. Reasons**

Special libraries are entitled to transform to *knowledge management centers* (KMC), *knowledge resource centers* or *centers for business knowledge* for many reasons:

- The principle that special libraries gather the knowledge created in the organization is not new. In 1910 G. Marion, librarian at the Arthur D. Little, Inc., described the work of his library as a central point that connects departments with their staff and collects, distributes and monitors the *knowledge flow* in the company.
- An advocate to this end is the SLA's value *Putting Our Knowledge to Work* which relates the work of the special librarian to knowledge management processes.
- *Organization of information* (classifying, codifying and making information accessible and reusable) has always been the province of librarians. These attributes are perfectly accomplished by special librarians. They are pertinent professionals to organize and filter the plethora of information which exists in the organization and presents it in an understandable and exploitable manner. Consequently, special librarians can organize the content of the knowledge management center.
- Companies usually chase *innovative activities* to compete in the market. From their mission, special libraries are concerned about aligning with the company's objectives and from their nature, they embrace innovations. Thus, they are competent enough to host the KMC.
- Special libraries act as *learning organizations* and provide *informal training* to employees by instructing them on the use of library resources. Informal training provides opportunities to retain organizational knowledge, especially with the employee turnover. In parallel, KM is a sum of effective learning processes that are exploited to create new knowledge.
- The fundamental principle of the library profession is to promote the *sharing and dissemination of information*. Knowledge sharing and transfer are characteristics of KM. Special librarians have acquired the expertise to identify internal deposits of information, to retrieve information and to share it with their community to fulfill the demands for specialized information.
- The KMC is a *change management project* which operates beyond traditional organizational structures and changes the corporate culture. Special libraries are used to adopt changes while embracing technological advancements. It is an opportunity for them to get involved in a change management project.
- Special librarians are well-positioned to provide *cost-effective* and *low-barrier access* to information and knowledge under the values of integrity, authenticity and trust. The KMC is

an example to provide low-barrier access to internal knowledge.

- Special librarians *bring people together* as they broadly know the work of the business units. They become the intermediaries, mediators and bridges to connect people with similar professional interests. They recognize the importance of people as a key source of information. In parallel, people are the dynamic ingredient of KM.
- Special libraries are the *democratic meeting point* as the Ancient Athenian Agora, to exchange and amalgamate ideas. The KMC is the community hub of the parent organization that collects the corporate wisdom.
- During their routine work, special libraries contact other *business units* in the organization to collect and disseminate information. Additionally, they have a long tradition in *networking* and *cooperating* with peer libraries. Similarly, the KMC involves several business units: the HR, research, IT, training, and finance. Hence, special libraries are experienced enough in partnerships to administer the KMC.
- Special libraries combine internal knowledge with external information from their resources. The internally produced documents may be kept in the library to create *knowledge repositories* which are among the components of the KMC.

In conclusion, there is a great overlap between special librarianship and knowledge management. Knowledge management-based activities are analogous to special libraries' activities.

### **B. Competencies Required**

The role of information specialists evolves to take ownership of institutional knowledge and to give access to information, knowledge and strategic learning captured across the organization. Information professionals have to think as innovators, knowers and entrepreneurs who add value to their companies. Special librarians manage to:

- Organize, categorize, catalog, classify, identify, select and evaluate information sources
- Disseminate the organized content
- Adjust library services in accordance with the developments of the company
- Operate as aggregators of internally produced knowledge
- Combine the traditional library skills and apply them in a different content environment.

Moreover, special librarians require particular capabilities for the KMC. They should:

- Extend their roles to become knowledge workers and execute all relevant activities: KM developers, KM integrators, KM educators, KM researchers, but also pathfinders for

instructing users and facilitators to information resources

- Acquire specialized skills: ability to transfer knowledge to work, benchmarking and assessment of software and databases
- Perform as knowledge brokers: connect people and persuade them to share their knowledge
- Be the facilitators of change and have eagerness to adopt changes
- Have skills on communication, business culture and interpersonal proficiencies, capabilities to persuade and influence, and understanding the environment of the parent institution, confidence, credibility, devotion and enthusiasm.

## **V. STEPS TO ESTABLISH A KMC AND ITS COMPONENTS**

### **A. Steps to Follow**

A prerequisite is to gain the support by the parent organization. The KMC entails steps of project management:

- Carry out a *KM audit* to understand the current situation and identify knowledge needs in the organization
- Produce a *needs assessment report* with recommendations, after analyzing, synthesizing and interpreting the knowledge needs
- Present the report to the *executives* to ensure their *approval* and support
- Build the multidisciplinary *KM core group* and make *alliances* in the organization staff
- Start planning and prepare a *KM strategy* to identify where you are and where you want to go. It includes a *project plan* with the w-questions (what, who, when, where, how) and an *action plan* (financing, workflows, milestones, expected outputs, evaluation)
- Select *pilot projects* to test techniques, procedures and methods
- Guide *the implementation phase* and ensure that people are well-informed and trained
- Apply the experience from the pilot project to *modify the KM strategy*
- Anticipate issues of *security, maintenance, user education and training, and marketing.*

### **B. Components of the KMC**

The challenge for special librarians is to integrate all structured and unstructured knowledge emanated from various sources, under one platform and to make it reusable in the *center for business knowledge*. Among its components are included:

- *Knowledge repository*: unpublished corporate material, informal documents, internal memos and the published wisdom of employees in external resources

- *The intranet*: the information tool of the organization including activities and policies
- The library's *OPAC*
- The *Ask a Librarian* and *FAQs* services: databases where the recorded knowledge of the reference desk is accumulated. They are valuable resources to retrieve information
- *Records management*: records are documents of current value, including correspondence, reports, inventories and other sources of organizational memory
- *Selective Dissemination of Information*: dissemination of custom-made information
- *Electronic journals* under prescribed restrictions of use
- Powerful *search engine* to harvest, search and retrieve the content of the KM system
- *Communities of Practice*: groups of people who share a concern, common interest and complementary knowledge on a topic and deepen their knowledge by interaction on a voluntary basis. The *virtual Communities of Practice* are shaped by geographically dispersed groups. *Knowledge cafés*, as a progressive development, are tools to articulate tacit knowledge within groups
- *Taxonomy*: the architecture of the information and management of the content in the KM system in a way to become retrievable
- *Technology*: it is the layer to store information and knowledge. The rule of 33 ⅓ should apply: 'if more than ⅓ of the total time and money resources of a project is spent on technological aspects, the project results in an IT project and not a knowledge project' (Davenport and Prusak, 1998).
- *Web 2.0 technologies* depending on the organization's policy.

## VI. BENEFITS FROM INTRODUCING A KMC

### A. For the Parent Organization

The knowledge management center is advantageous for the parent organization, because:

- it facilitates better decision making: the well-informed decision maker takes as more correct decisions as possible
- It exploits the existing knowledge and resources
- It increases opportunities for innovation and encourages the free flow of ideas
- It improves customer service, boosts revenues and enhances the current value of existing products
- It streamlines operations and reduces costs in human hours
- It improves and records the collective-organization memory

### B. For the Special Library

The special library accumulates many advantages from the transformation into a KMC:

- Its profile, reputation, visibility and status are augmented
- It becomes a strategic and trusted partner of the company and demonstrates the value of library services
- It cultivates open exchange of ideas
- It accrues the knowledge and collective wisdom of the organization
- It defeats the possible threat to become marginalized and to conquer closures during economic constraints
- It becomes the agent of change by introducing an innovative project.

## VII. CONCLUSIONS

The knowledge management center is an expensive and difficult project to accomplish. In this paper we approached it from the aspect of its content and the requirements to establish it. However, the KMC encompasses people and technology as a multidisciplinary project.

If special libraries play their KM cards correctly, they will become a vital asset to the parent organization. In this context, effective use of knowledge helps the company achieve organizational survival and transformation.

Furthermore, the KMC cannot succeed without the support of the top management. It is an innovative project and when it is fully operational, it demonstrates the value added to the company.

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