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INTEGRATED INFORMATION

International Conference on Integrated Information

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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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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].

Culture in Modern Times in the Frame of Luhmann's System Theory

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Abstract: *In his System Theory Luhmann describes the transition to the Modern Times as an explosion from the uniformity of hierarchical classification to the diversity of hierarchical classification: a classification, which contains a variety of simultaneous, equivalent hierarchies. Through the Modern Times a section is marked, which coexists with a completely different relation with the past and the tradition.*

Keywords: *Culture, Modern Times, Luhmann's system theory.*

I. INTRODUCTION

The authors are fully responsible for the printing quality of their papers, and are kindly requested to observe carefully the following instructions for the preparation of their manuscripts. This document is itself an example of the desired layout for camera-ready papers.

In this theoretical frame the term of Culture is reclassified. While in the past the Culture was identical with regularly identifying points, in Modern Times we are in front of the disidentification, which results from the differences. The culture exists not in the stable pictures of semantic transports and deliveries (cf. Luhmann 1984, p. 193), but in forms, that are imported by the discrimination between the Material and the Semantic.

The cultural work is not observed as an object, but as forms of prospects, including also those of criticals and artists, who produce it. It is about - like any form according to Luhmann - a trauma of the world, a section, a double discrimination: on the one hand we accept the culture as a plan and a structure and on the other hand we see the the culture as an observation of creation. We are not just focused on the importance of culture, but much more on the comparison between the objects and the prospects of observation in objects. This doubling of reality characterizes the total semantics of modern culture. The culture therefore turns into power, which produces the possibility of doubling form, because it is structured in double, which doubles anything cultural and as a result presents any possible comparison (s. *ibid* 1997, p. 588). Through the comparison, all the cultural identities, the situations and the entities are relativized and subjugated. The culture becomes a differential and comparative observation of second classification (like governmental anonymous systems = second order cybernetics)

Luhmann clarifies the Semantics as "Fixing of Meaning" (*ibid* 1993, p. 126), which is located in the communication. The culture is delivered in the communication-means. In contrast to the past, when the culture was conceived in the frame of Rhetoric as

collection and treatment of a real use of Topoi, the culture is now expressed in the communication process as a structural model of self-description of the society. Through the communication process ideas, forms, terms, ritually, processes of new meanings and semantics are produced, which are disconnected from the imagination of the speaker, where everything is kept as recollection or tradition. We should therefore recognize a dynamic function within the culture. It is about a transition from a form of ritual cohesion (of which the pleonasm is based on the repetition and the imitation) to a form of communicational cohesion (of which the pleonasm is based on the observation and the comparison). In other words: the ritual action and the fabulous narrations as transferable documents are characterized as symbolically contextual models. They don't constitute static monuments, but dynamic structures, which serve the observation with discriminations. Luhmann characterizes this as attended semantics, which is a self-description of the society of communicational form.

The self-description and the (attended) semantics belong, according to the opinion of Luhmann, to the memory of society. In other words: the culture, nowadays, is considered to be memory of society. More specifically, the culture is "the filter from the oblivion/recollection and the utilization of past in the determination of the differentiated frames of future" (*ibid* 1997, p. 579). Memory determines, through the difference between the recollection and the oblivion, how the structures are selected and vary in the frame of a communication. The memory, which used to be complex and connected to the object, the name, the holy and the fabulous, nowadays takes a writing form and releases the society from the individual memories. Memory makes sure that communication insures the conditions for the different varieties (s. *ibid*, p. 584). The phenomena, which according to Luhmann are shaping the social memory and therefore the culture, are symbolic. The writing and the modern communication means supplement "the recollection which is connected to the object through a moved memory, which can be reproduced, but in the process, decisions between recollection and oblivion are required" (*ibid*, p. 586). This clarification strongly collides with the form of a fantastic memory, which results from a probability which is been disposed in the communication and from a complex variety.

As possibility of variety, the culture is not a conflict with the past, but a relation with the present. Culture as a memory is not a file of the past, but a determination of evidence and connections among different contents, which function as organisational basis of information.

The fact that the power of culture lies in the power of oblivion, should not become perceptible as the deletion of information, but as the production of surplus of information, not as the absence of culture, but as the covering of cultural presences, which, according to Luhmann, cause “a semantic hypertrophy of variety” (ibid, p. 472).

The modern cultural semantics is taken care of, as it was mentioned before, by the communication means, including the writing. The communication means are based on the discrimination of stored materials (stabilization) and the possible communications (choice and variety). The communication means are characteristics of the modern memory. Their organization is based on an abstract, guided from semantic criteria classification in contrast to the natural regulation of materials. It is the frame in which the cultural objects are presented as forms, not as real but as a non-transparent, fantastic or possible world of probabilities, which marks the transition, the crossroad from the level of perception of a related to the object reflection, in an abstract level of reflection related to the communication. In this level of abstraction, comparative analyzes take place, through which the culture is allocated in structures, which are characteristic of the multicenter and multi-contextual modern society.

This point of view results, that the culture exists as a medium form. We experience and examine the culture in an auto logical circle as a unit in the direction of Means, in which is shaped the diversity and on the other hand in the direction of form, of which creation makes possible the diversity. In other words: in a reflection that is shaped by the System Theory and the Theory of Difference we are based on the discrimination between the Means (free, connected elements, which can be recognized as external incidents) and the Form (regularly, connected elements, which can be recognized as internal incidents). The observation of a second classification does not only concern the form, but also the means and it studies other probabilities, which gain the diversity and the clarity only in the basis of the comparison and the experimentation with concrete, planed or shaped forms. The culture becomes in this way operant and operator of itself and reflects itself. It becomes means. The potential of form, which lies in this, remains inherent as diversity between the self-report and the foreign-report. The culture is related with itself as means (notification) and as a form (information). It is the systematic place of their configuration and signification.

II. CONCLUSIONS

In conclusion: the culture is beyond the semantics and the communication, the symbolic abstraction, the ideal form, the contextual forms or the contextual models. The cultural systems are clusters of formal contextual models, which direct the communication of society. The culture is realized in an aesthetic horizon and is

materialized there, where it is presented as present of communication process.

Culture at a contextual form makes the movement possible, without being moved. It is the motionless motive force, which means that it determines the time as the difference among the simultaneous, the former and the later.

The realization of culture in the time as a process does not exist in the sequence of information, but only in the connections, via which we can exceed the present. This fragmented into pieces and always restructured time is calculated through an abstract and catholic chronology (ibid, p. 272). Precisely here lies the operation of culture, that is a perpetual continuation of space, in which the space appears to move itself as compaction of time. It concerns a relative to the observation movement of space, for a re-entry of the history to the present.

Such a base of cultural forms, which is the result of regulation of differences, is transmitted from the past (as resistance) to the future (as variant). Under these circumstances it is transported the vagueness of the future to the present, which is always observed as the past of the future, that will prepare it: it is a fact that the present is as unverifiable and unpredictable as the future and cannot offer any certain determination, but it can only offer an abundance of potential and fragmentary cultural prospects.

REFERENCES

- [Burkart, Günter and Runkel, Gunter, Luhmann und die Kulturtheorien, Suhrkamp, Frankfurt a.M. \(2004\).](#)
- [Esposito, Elena, Soziales Vergessen. Formen und Medien des Gedächtnisses der Gesellschaft, Suhrkamp, Frankfurt a.M. \(2002\).](#)
- [Luhmann, Niklas, Soziale Systeme. Grundriß einer allgemeinen Theorie, Suhrkamp, Frankfurt a.M. \(1984\).](#)
- [ibid, Die Gesellschaft der Gesellschaft, 2 Bände, Suhrkamp, Frankfurt a.M. \(1997\).](#)
- [ibid, Soziologische Aufklärung, Bd. 1, Westdeutscher Verlag, Opladen \(1981\).](#)
- [Nassehi, Armin, “Die Differenz der Kommunikation und die Kommunikation der Differenz. Über die kommunikationstheoretischen Grundlagen von Luhmanns Gesellschaftstheorie”, Beobachter der Moderne. Beiträge zu Niklas Luhmanns “Die Gesellschaft der Gesellschaft”, Uwe Schimank and Hans-Joachim Giegel, Suhrkamp, Frankfurt a.M., S.21-42 \(2001\).](#)