ABSTRACTS

Lexical Knowledge
and Encyclopedic Knowledge

t. 2 *Designing and Using Hyperdocuments*

Patrick J. COPPOCK

The Electronic Hypermedia Encyclopædia 9-44
Transcending the Constraints of the «Authoritative Work»

This paper examines critically the conventional idea of the encyclopaedia as a more or less static, "authoritative" reference work in the light of modern digital communication technologies. Electronic hypermedia seem to offer the possibility of beginning to cope in a more constructive way with the problem of representing the constant recontextualisations of meaning that occur within culture and nature. With the development and expansion of the World Wide Web process of change may quite easily be (re)presented as dynamic processes in various ways through the updating of content and form within distributed documents and home-pages. Some problems of information overload and selective retrieval in hypermedia systems, as well as some potentials and limitations of abductive reasoning systems as computational disambiguation devices are discussed. Finally, the role of interaction in culture in the disambiguation and development of meaning is foregrounded in a discussion of virtual interpretative communities in distributed text-based multi-user dialogues, which, as they become dynamic nodes in distributed hypermedia systems, seem to challenge the authority of the encyclopaedia as a canonical reference work.

Davide MUSELLA, Marco PADULA

*Seeking Emergences from Digital Documents
in Large Repositories* 129-150

The information world which is represented by the Internet is not completely defined because of its rapid evolution. With this paper we propose an argued overview of the problems, directions for future solutions and, consequently, basic definitions. We have adopted a standpoint with the aim of framing the activity of the information researcher and the environment where he moves. The technologist must drop ideas, scenarios, philosophical considerations, definitions in the air around him into his operating laboratory, create a link between speculation and pragmatism, and keep that link continuously stressed : while he analyzes social needs, he designs solutions in consideration of available or foreseeable infrastructures, methodologies and communication languages.

David PIOTROWSKI
Lexicography and the Operating Forms of Hypertextuality   65-102

In this article, a comparative analysis of three hypertext models is proposed : (i) the Dexter model, (ii) the "3-layer" model, and (iii) the "2-layer" model. The Dexter model, which defines a generic frame for hypertext forms, explores hypertexts under the exclusive point of view of their internal (static or dynamic) functional structure. Contrary to the Dexter model, the "3-layer model" gives a specific place to the reader : its allows for his/her functional activity of reading. In the "2-layer" model, the fundamental structure of hypertextuality is a recursive appropriating structure : a group of qualifications applied to texts orientates the reading which lead to elaborating new models of qualification. We show that these three models are distributed according to a double gradient : the first one is parametred by the analysis accuracy of the internal forms of hypertextuality ; the second one is parametred by the largeness of the perspective which includes the reading activity. Thus, these three models are not mutually exclusive : they offer more or less global images which are more or less focused on a same empirical fact : hypertextuality. Therefore, it is on their combination that a satisfaying problematics of hypertextuality resides.

Elisabeth STOCKINGER de PABLO, Hammou FADILI, Peter STOCKINGER
SemioNet
Specifying, Producing, and Implementing Online Information Services   **151-194**

The developments of communication and information technologies implying network processing is concerned to education and research fields. The most well known applications are remote teaching, online edition and shared work. These applications require proper computer means as well as real concern for the form and substance of the documents and services produced. Therefore, the modeling, designing, specifying, producing and implementing problems of those documents and services, as also the updating problems, are not really of the technological type, but proceed from a semiotic order. Based on an actual case, this article aims at demonstrating that the semiotic approach of a document can build up an integrative frame for different local existing technologies and can lay the foundations of a general and systematic methodology called *SemioNet*. *SemioNet* should be useful to guide the different stages of creating and reusing electronic documents and services.

Chris TOMPSETT
Information Based Learning and Knowledge Structure   103-128

Information-based learning is concerned to research the expanding potential of electronically linked resources for the design and delivery of educational or training material. The emphasis is on providing effective tools to allow the learner to exploit this expansion and requires that access techniques are developed that are more directed than generic information retrieval approaches and less constrained than those that are individually authored. Knowledge-based analysis provides a rich avenue to explore. A trial system has been developed, automatically generating the links between hypertext nodes using a knowledge description

formalism based on KL-One. The evaluation of this system and the impact of later changes to the knowledge-base are described.

William A. TURNER, Boris BORZIC,
Mathilde de SAINT-LEGER, Yves MÜLLER

Documentary Semiotics   **45-64**

The documentary semiotics applied to scientific literature is likely to contribute to the organization and the optimization of scientific collaborations on condition that it sets itself free from the logicist attitude (langage seen as a copy of reality) and from the sociologist attitude (langage seen as the expression of a social behaviour dictated by values and motivations). This article develops an economist approach in order to study the way in which social interactions are arranged around exchanges between this "object" represented by scientific publications. The semiotic analysis of documentary flows permits to distinguish thematic interests linked to a specific scientific community and particularly the forms of collaboration (partnership, subcontracting, union) between members. The practical case which is here dealt with is related to publications concerning the theme of social transformations in towns.