NEURO-BIOLOGICAL KNOWLEDGE IN GENDER STUDIES

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Neuro science has numerous researches each with its own experiments, models, methods and terminologies. This neuro biological research on knowledge in the gender studies deals in making critical analysis of the interrelationships existing between those studies and underlying concepts related to the nature – nurture discourse on gender differences on the others. The purpose is to facilitate quick and easy information retrievals for the experts and non experts. It is proposed to formulate a structured knowledge database using thesaurus. The organising structure for the information about the brain in neuroanatomy, which provides a construct for the functional expression of brain activity. The speciality is that it would offer the facility not only to formulate queries directly to the database but also to navigate through web.

Summary :

The architecture of the knowledge:

1. the distributed relational database.
2. query analyser and the hypermedia generator between user interfaces and databases.
3. internet-based user interfaces to update the data (acquisition) from the interested authors/experts.
4. internet-based user interfaces for consultation.

The database module contains all data in hybrid form. The query analyser and hypermedia generator module helps to input data into the database during acquisition, and to translates user queries during consultation. It also controls the output of the search process in co-ordination with the interface module for consultation. The user interface module for consultation gives user activities (navigation, queries) to the module query analyser and hypermedia generator. Continuous updation of current knowledge is possible through the interface module for acquisition.

The RDBMS modelling is used to add, delete, search and modify the data in varied forms. The hypertext fragments forms a part of the database. It contains knowledge in a partially formalised form. To organise these distributed and relational knowledge in the hybrid form, there is a need for construction of a thesaurus. Thesaurus provides the family of related terms connected semantically and/or functionally. In the thesaurus, the central terms or the foci representing the various dimensions of the subject ‘neurobiological brain structure and function against the gender aspects’ have to be defined along with their network of relations.

The thesaurus acts as a key both to locate the search terms (query) and to lead automatically to the hypertext fragments from the database. In addition, it provides links between the interrelated concepts and the hypertexts

The techniques involved in the organisation of the Information System (IS) is to be dynamically updated by adopting new tools and standards. To make the IS more efficient, interactive and user-friendly techniques are to be added continuously. For example, the HTML and XML interfaces are to be expanded with browser-specific interfaces that support interactivity. It would be ideal to use interface like the WIMP that enable incorporation of different activities simultaneously.

Thesaurus

The Information System should provide 2 possibilities for efficient retrieval of information.

1. navigation through hyperlinks as in a traditional hypertext system:
2. queries to the database: hyperlinks are designed dynamically to facilitate the users to formulate their queries more precisely either by narrowing or broadening their search terms.

Our aim is to integrate hypertext navigation and information retrieval with image and textual data in one system. The principle is to offer a user-friendly system that can also be used for other applications as well. The basic idea is to combine the functions of navigation and retrieval with the help of a common data structure, i.e the thesaurus (hybrid system). The advantage of this system is that apart from providing a quick access to the complex data, it helps to provide semantic and functional relation between the data. The provision of such relations is necessary especially to establish the content-relations of a foci to different domains and to remove the ambiguity existing in dealing with larger domains.
The process of search retrieval involves two major steps:

Step 1: The user inputs a query with one or more search terms. The query analyser interprets the search terms with the help of the thesaurus and formulates a standard search term to initiate the search process for documents (textual/graphic) in the database.

Step 2: The system responds with the hypertext output. This output provides links to the documents in the hybrid forms and also helps to sharpen the user queries more precisely to get more relevant retrieval from the database. From the output, the user also gets the possibilities to step into a hypertext system for further navigation.

The advantage of this search process in various steps is that it meets the specific needs of the different users. Both, non-experts who do not have familiarity with the query language and the experts who would like to make definite search will be satisfied with their outputs.

So this is how we would be having the implementation of neurobiological gender studies in the current field .

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