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THE SEMANTIC MODEL OF SAVING, EXTRACTION AND SEARCH
OF INFORMATION FOR THE ELECTRONIC LIBRARY
BASED ON THE COGNITIVE MODELS

The semantic model of saving, retrieving and searching information of the information resource (the subject of studying) in the information storage:

- 1) acts as the integrated and extended component of el. library based on the parametrical cognitive models block (www.vetrovan.spb.ru);
- 2) is executed by the principle of parallel architecture and the modular principle;
- 3) has differences relatively to the model of el. textbook and the model of el. lab. workshop;
- 4) includes the several main components, which realizes the different functions: the procedure of the semantic model of saving, extracting and searching of the information [the algorithm of saving and extr. of the inf. for the adaptive repr. of inf. fragments processor, the libr. of inf. fragm. (frames) contains the text. and graph. content of inf. fragm., the library of the purposes of search (frames) in the information fragments, the algorithm of formation of the information fragment of the electronic library, the algorithm of reconstructing of the meta-model of the purposes of search in the inf. resources, the tree of the purposes of search of the textual and graphical content, the information structure (the table of contents, the links between inf. fragments), the alphabetical-subject index (the optional-semantic) (the alphabetical-subject list of terms and definitions by activation), the library of frames with the textual and graphical content, the library of the properties of actions and descriptions of the textual and graphical objects, the list of literary sources of the inf. resource (the information fragment), the adaptive representation of information fragments processor (the module of control of processing of the physiological parameters for the providing of the individually-oriented generation of information fragments, the module of control of processing of the psychological parameters for the providing of the individually-oriented generation of information fragments, the module of control of processing of the linguistic parameters for the providing of the individually-oriented generation of information fragments) and the algorithm of primary initialization of the operations, initiated by the user]; the param. cognitive models block [the cognitive model of the subject of training, the cognitive model of the means of training, the cognitive model of the el. library with the possibility of dynamic cloning, verification and subtracking];

the information model of information resource (the subject of studying)
[the codifiers of resource of the information storage of the electronic library, the param. cogn. model of the means of training and the subject of training by default (opt.), the universal ten-digit classifier for the identification of specialty, the national or foreign language of statement of the information, the cover sheet (the form factor, the type of paper and the type of cover), the name of information resource (the carrier of information), the author by the personal contribution (the list of co-authors by a certain contribution), the location (the organization), the city and country, the year (date) of creation, dep. and publ., the quantity of pages, pictures, tables and bibliographic sources, the body of official dep. and registration on the territory of RF and abroad, the annotation (preface) of inf. resource on the carrirer, the contents, the introduction, the main part (the volume, part, section, module, chapter, paragraph, note, the control questions, the page as the information fragment), the conclusion, the dictionary with the list of key terms and definitions (optional), the alphabetical-subject index, the bibliographic apparatus and the add. information].

The information elements of the electronic textbook of the electronic library are linked with the inf. elements of the semantic model of saving and extracting of the data:

- a) The main block of information $i = \{1, N\}$ (Portion 1, ..., Portion N) is directly linked with the main information fragment $i = \{1, N\}$;
- b) The main block of control questions $k = \{1, K\}$ (Portion 1, ..., Portion K) is directly linked with the main control block $k = \{1, K\}$;
- c) The add. block of information $j = \{1, M\}$ (Portion 1, ..., Portion M) is directly linked with the additional information fragment $j = \{1, M\}$;
- d) The add. block of control question $l = \{1, L\}$ (Portion 1, ..., Portion L) is directly linked with the additional control block $l = \{1, L\}$.

The linguistic processor of the electronic library allows to provide the differential switching of the localization of the interface and the database.

The semantic model of saving, extracting and searching of the information of the inf. resource (the subject of studying) in the inf. storage at the level of interface allows to provide the work of a reader, a librarian, an expert, and a consultant.

The delimitation of the rights of access realizes the procedure of registration of the user, the selector of the modes of functioning of the electronic library at the working, the procedure of primary initialization and processing of the events of user and system, the procedure of selection and analysis of data of the systematic (bibliogr.) catalogue and sources, the procedure of checking of the corr. of data, the procedure of selection and proc. of requests to the data bank, the procedure of checking of the integrity of data and the procedure of archiv. and backing up of the data.