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# MODELS AND METHODS OF FORMING THE NATIONAL PUBLICATION PORTAL DATABASE

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**Annotation**
Science and technology are evolving quickly in the information era, particularly with the quick growth of communication and computer technology, which has greatly improved the convenience of our daily life. The advancement of database technology also makes it possible to store a lot of data on goods and customers from all areas of life. Processing enormous amounts of data has become essential to the advancement of information due to the rapid rise of information and the ongoing development of information technology. There are numerous forms of data in addition to the enormous amount. The information models and procedures for building the national publication portal database are covered in this article.

**Keywords**: media, digital era, methods, clustering, new system, national publication, database, portal, models.

Databases are better than spreadsheets for storing large amounts of data and for working with that data in different ways. You may encounter the power of databases all the time in your daily life. A database is an organized collection of data. Databases support data storage and manipulation. The task of controlling access to the database also belongs to the database.
The national information system is created taking into account the compatibility of the information systems included in it with international information systems. System is one of the widely used concepts in science and technology nowadays. The goal of information system production is to increase the effectiveness of the system, taking into account organizational design, technological and other aspects.
Various information technologies have been applied in the educational sector of university libraries to upgrade the hardware and software. Daily resource updates at the media result in a significant volume of data being accumulated in the database for media information. However, there is a wealth of information concealed in these details that media staff members could investigate further, such as the guidelines for book associations between readers. It has been discovered that these criteria can maximize collection shelf management and provide individualized book recommendations for readers.

The state policy of the Republic of Uzbekistan in the field of informatization is aimed at creating a national information system, taking into account the modern world principles of development and improvement of information resources, information technologies and information systems. It should be noted that the national information system includes state bodies, as well as legal and natural persons, network and regional information systems. The information system is the total information resources, information technologies and means of communication, organized in an organizational manner, which allows to collect, store, search, process and use information. The electronic information, data bank, and database constitute the information resources of the information system.

The second paragraph of Clause 13 on amendments and additions to the rules for the distribution of periodicals in the Republic of Uzbekistan should be stated as follows: "In the catalog, the name and index of the periodical publication, the telephone number of the distributor who published the catalog, the subscription price of the periodical publication, the publication period, the period of subscription, age classification of the periodical publications and other information are indicated."

Network Management System - This type of database supports many-to-many relationships. This usually leads to complex database structures. An RDM server is an example of a database management system based on a network model.

Relational Database - This MBB type defines database relationships in the form of tables. An RDBMS does not support multiple relationships, unlike a network DBMS. Reliable DBMSs usually have pre-supported data types. This is the most popular type of DBMS on the market. Examples of database management systems are MySQL, Oracle and Microsoft SQL Server database. In this type of database, SQL is usually used as the standard search (query) language.

Object-oriented database - this type of database supports the storage of new data types. The data to be stored is in the form of an object. There are attributes stored in this database (such as gender, age) and methods that determine what to do with the data. PostgreSQL is an example of an object-oriented relational DBMS.

Many relational databases are designed in such a way that they also have the characteristics of object-oriented databases. Think about database triggers. This is a program that starts automatically when predefined actions occur in the database. For example, entering a record can immediately trigger all kinds of checks without the programmer thinking.

The media's extensive collection of books, journals, and other resources are saved into the database system thanks to informationization. It not only improves the media's capacity for storing information but also introduces a database to make it easier to do

operations like insertion, modification, query, statistics, and other related tasks, which forms the foundational data for the media. The user's operations and media daily tasks, including information retrieval, personal lending operations for books and periodicals, media cataloging, information storage, daily management of media management, and other internal business, then resulted in the quick development of the media's online network.

A digital object, like a journal article or issue, might have metadata, which is information that describes it. The ability to organize, search for, and retrieve journals and papers is crucial to academic publication. The Microsoft Academic Graph, Google, Google Scholar, and other search engines receive article metadata. Publishers, persistent identifier systems (ORCID, ROR, ScopusID, etc.), citation management software (Zotero), grant application platforms, UnPaywall, the Open Access Button, and many more use the metadata from registered Digital Object Identifiers (DOIs) in Crossref and Datacite.

You will save time and make an investment in discoverability, access, dissemination, preservation, and, possibly, research impact if you ensure good metadata from the beginning. It will take time and effort to fix poor metadata, which can prevent researchers from harvesting, indexing, or finding your resource. Before you have a chance to make adjustments, any indexing or harvesting services may begin pulling your metadata once your content has been published. (For instance, Google Scholar initially indexes publications rather quickly. Changes, however, may not be reflected for several months.) "Rubbish in, garbage out" is a proverb that is used frequently in this industry. Low discoverability and potentially erroneous or untrustworthy information are the results of bad metadata.

A database model called the network model was created as a flexible method of expressing things and their connections. The schema's defining characteristic is that it creates partial order when viewed as a graph in which object types are nodes and relationship types are arcs. The efficiency criterion for managing algorithms is minimizing the number of query comparisons when a database is vast and a query comparison is expensive. For database management systems using a network architecture, we discuss updating operations.

This research suggests a quick recommendation algorithm for tailored media information based on density clustering in order to increase the precision and effectiveness of media information recommendations. According to the analysis of the clustering principle, the algorithm achieves the clustering of media information by designing density interval function. Then, the collection priority of media

personalized information is judged, and the media personalized information is recommended quickly by designing tags according to the media users' preferences.

## Conclusion

This research suggests a quick recommendation technique for personalized media information based on density clustering in order to enhance the performance accuracy and efficiency of the conventional media information recommendation algorithm. The method accomplishes the grouping of media information by creating the density interval function, according to the analysis of the clustering principle. Then, by creating tags in accordance with the preferences of media users, the collection priority of personalized media information is assessed.

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