

# Research on Innovative Path of News Visualization Communication Based on Java Technology

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## Abstract

With the development of the times, readers' demand for news is no longer limited to simple text information, but more vigorous to understand the deep meaning behind the text. As far as journalists are concerned, they need to strengthen the exploration of visualization in the way of communication to realize the visual communication of news. As soon as visual news comes into being, it is deeply loved by audiences. How to expand the scope of visual news transmission and broaden the path of visual news transmission has become a problem that must be considered by journalists and sportsmen. To make the content of data news more abundant, we can make rational use of the method of visual communication, so that the characteristics of interaction can be fully developed. From the dialectical relationship between technology and content to analyze news visualization, Java technology as a widely used network language, due to its platform independence, high availability, security, reliability and support for database programming. The establishment of news management based on the Java platform, giving full play to the important role of information technology, and more efficient processing of news of large information volume, has a positive impact on the development of the news industry.

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## I. Introduction

Data news and news visualization communication are not abrupt concepts, but the result of the evolution of the news media industry in line with the development of the times [1]. In the era of big data, news production attaches great importance to the use of data. Data visualization technology refers to the theory of using computer graphics and image processing technology to convert data, data change process and data change results into graphics or images displayed on the screen and interactive processing. The emergence of data news has injected new vitality into journalism [2]. The so-called data news, in short, is to use data for news. One technology that data news must rely on is big data technology. On this basis, data news also needs to integrate the development needs of the news industry, and adopt a reasonable method to use visualization technology, so that the relevant content of data news will be presented in the form of data [3]. In the process of data analysis, users can participate in the analysis at any time, such as setting appropriate thresholds, and can also visually understand the characteristics of the current rules. For

the final mining results, users can also understand the final mining results through visualization technology. It is particularly important to realize the visualization of news communication [4]. Because big data is based on computer technology, network technology, information technology and other technologies, one of its characteristics is that it can realize visualization and present the connotation characteristics of data through many different means. It is necessary to comprehensively optimize the narrative content of news reports, and realize the visual communication of innovative news in a true sense. You can make full use of Java technology to make or spread news [5].

Visual programming, usually refers to the use of visual programming tools to provide ready-made visual components to program the process. These visual components are usually represented as buttons or text fields [6]. With the development of news digitalization, news dissemination of news media organizations can be realized through data collection, data analysis and visual dissemination. News communication has also become a process of data collection, data analysis and visual communication.

Through the visual dissemination of news, the interaction between the media and the audience can be enhanced, and the propaganda effect of news programs can be strengthened. The realization of these steps is the public value, interaction and propaganda effect of big data visualization news, which brings rich and colorful news information to the audience [7]. Java technology is developed on the basis of three-dimensional graphics library. It is a high-level object-oriented, scene-based programming interface, which can achieve high-performance processing of three-dimensional graphics data. It plays an important role in the process of news dissemination [8]. The science management based on Java technology is scientifically designed and effectively improved to improve the level of news management and the quality of communication. Due to the existence of JDBC, Java applications can access various relational databases, and such programs can access different databases on different operating platforms without modification [9]. The same is true for the media. The information output mode and the audience's information receiving mode show diversified development. Visual news is generated in the atmosphere of new media environment. In contrast, data news, data and information technology are the means by which such news relies, so in terms of news production, data news has obvious advantages and has certain accuracy [10].

## II. Materials

### Research on Visualization of Data Structure

The relationship between technology and content, technology and knowledge is one of the important theoretical arguments in media environment. The controversy of technology and content in news reports has a long history, and it has aroused a new round of controversy in the network era. The news management system based on Java technology has the main functions of news browsing and news management. News browsing function is a news management system in which visitors log on to Java technology, browse and read news information in the system, and provide information services for them. Users only need to connect to the molecular simulation server system through the network. After authentication, they can submit the data and operation parameters of molecular

simulation calculation. The server can automatically analyze the data submitted after receiving the data. Relational databases have organized data belonging to various attributes in an orderly manner, indicating a certain relationship between attributes; text files are also text files with certain format requirements. The code will create the appropriate components when the program runs. But for a real programmer, simply dragging off-the-shelf components to the design panel is not enough. For example, for a button, you might want to modify the text property above or add a click event to it to satisfy the programming task.

### Characteristics of News Visualization Communication

As a miscellaneous scholar, journalism is a hodgepodge of reporting all walks of life. It must combine the characteristics of many disciplines, so that people in all walks of life can read the connotation of news reporting deeply and interestingly. In the news industry, especially in the context of modern new media era, the importance of timeliness is directly related to the survival and long-term sustainable development of the news media industry. Press release system fully reflects the technical advantages of Java platform, especially in the fast query of information, based on the Java platform, using its technical advantages. The result data of simulation calculation is stored in database. When the client submits the data of molecular simulation calculation and running parameters, Java technology has built-in class discovery function, which can make the object interact dynamically at run time, so that the object can be independent from the development system. The server-side unified management starts the simulation calculation software, and the simulation calculation software stores the processed results in the database. Strengthen micro-reporting capabilities in the process of macro-reporting. In other words, the use of data news can enhance the public's credibility of the news, and can form a mutual compensation with the "micro news." The data obtained from the data mining layer is stored in a specific format, and after the corresponding data is constructed, the data interface is provided to the upper layer. The simulation prediction analysis process is shown in Table 1 and Figure 1.

Table 1 Simulated prediction analysis process

	Mapping value	Discretization
Filtration record	0.36	0.59
Simulated correlation	0.42	0.51
Getting random samples	0.35	0.63

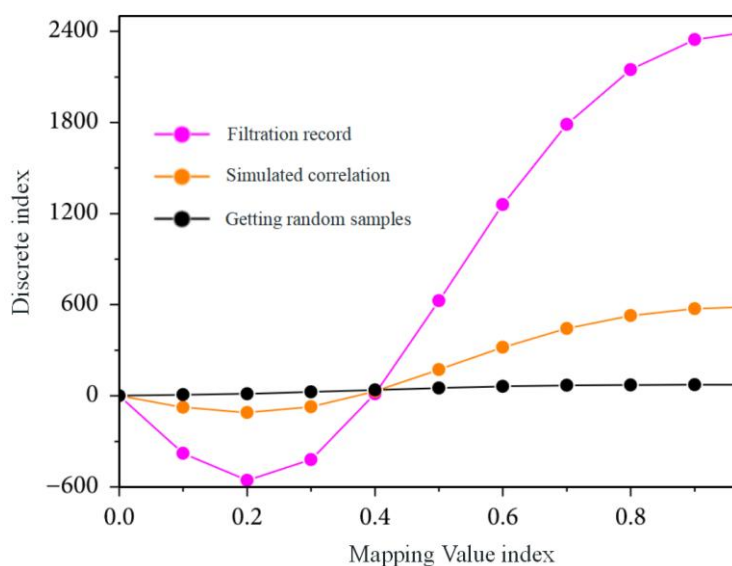


Fig.1. Simulated prediction analysis process

In the news communication of large data visualization, the use of information map conforms to people's reading habits and modes in modern society. It transforms the information transmitted by a large single text into a concise and clear display of visual information map. From a statistical point of view, news visualization is a large-scale sampling survey or census, through sampling survey or census, to understand the development of things. General law. Visual news mainly uses objective data to report things and phenomena fully and objectively. To analyze the narrative content of news reports from an objective and broad perspective, and to effectively remedy the deficiencies in news creation and dissemination, so that the visual relay of news in the era of big data can truly realize the combination of macro and micro levels. Between the news media and the audience, or between the news media, are becoming more and more balanced. Therefore, in this context of communication, if we want to stand out, win the initiative of competition, and seize the audience's "eyeball", we must improve the "technology". Similarly, visual development tools provide programmers with tools to modify attributes, which can help programmers set the attributes of components and generate corresponding code. When the program is created, the information of these configurations will be saved so that it can be restored while the program is running. The "source" of the mining should be a collection of "rules", which cannot generally be found directly from the collection of data. To get the solution to the problem, we must use a combination of low-level knowledge, that is, the comprehensive use of known "facts", "rules" .

### III. Result Analysis and Discussion

#### Innovation in the Way of News Visualization Communication

The emergence of news visualization can not be separated from the promotion and development of new media technology. At present, the emergence of news visualization is a trend of the times and will become more popular in the future. The most noticeable feature of visual news is its interaction, which changes the traditional way of news reporting and establishes a new news narrative mode. Give full play to the functional advantages of J2EE technology, improve the three-tier structure of news release, business functions and data management have made remarkable progress and improvement. The design of news release is the basis of the design of news management system based on Java platform, and plays a key role. In the process of innovating visual news communication, we can replace the traditional news narrative way by the way of internet, integrate the expression form and idea of Internet into visual news report, enrich the way of news communication through Java technology, and use dynamic icon form to spread news information can help people grasp the economic field of concern at a glance. The data status quo and development trend also break through the practical constraints of simple language reports which are too abstract, complex, academic and accurate. The task of the system is to find strong rules in a huge database. In this case, the corresponding minimum value can be set for the support degree and the confidence level, and the value can be adjusted according to the actual situation.

#### Visualization Design of Data Structure in Java Technology

Java technology API's efficient code enables it to

support fast and dynamic three-dimensional display based on the network, and can dynamically add and delete scene diagrams. Improve the logical structure of news management system. On this basis, with the help of system deployment and development tools, news management system is designed to meet the environmental requirements, security mechanisms and system application needs, and a sound news management system based on Java platform is established. Visual news is the application of data, and data has no boundaries in theory. Most data can become an important source of news reporting. Visual news should exist where there are news value and big data. Detailed representation is abstract and graphical. When it encounters conditional branching, it generates tree branching. At the corresponding branching nodes, different colors are used to show the classification of each data and its proportion, so that users can see the information of the data at a glance. At the same time, the audience can also see the specific location displayed and the realistic realistic scene on the interactive map by clicking the interactive form of the query, bringing the audience the most concrete and real situation and the development situation. By optimizing the data to transform the traditional narrative method, the innovative news visualization communication method can be realized in the true sense. Data journalism is used to realize data visualization through interactive technology, which gives modern people a good visual experience when reading news.

As a yardstick or standard for observing and recognizing things, the media itself has far more significance to human life than the specific content transmitted by the media. It causes a revolution in the whole way of life and even in the way of feeling and thinking. In the era of big data, news production and dissemination lay particular emphasis on the reference of all kinds of data. Through horizontal and vertical comparison and other processing, large data and news information are combined to form a visual whole. Through the use of information map, data news can quickly convey the core content of news events to the audience in a visual way, which is simple, clear and intuitive. Visual news can use pictures, data, links and other content as supplementary text forms, enrich news content and strengthen data application. The presentation of visual news should also pay attention to the clarity of its logic and give users a better way of reading experience. According to the function of the Java technology news management system, varchar is used as an input to process related data information, and character processing is used to perform validity check and exception processing. The data set is represented by many such axes. . Since one of the values of each data field corresponds to a point on the

corresponding coordinate axis, the line corresponding to the record on each coordinate axis constitutes a record. The three-dimensional shape is in the local coordinate system centered on the origin of the coordinates. Some shapes may be outside the range of the viewpoint and the shape of the figure is large. It is necessary to adjust the position of the viewpoint and the visual scale of the shape the transformation node is completed.

#### IV. Conclusion

This paper studies the innovative path of news visualization communication based on Java technology. With the interaction of information, new media and big data, the visual communication of data news will become the main form of news production and dissemination in the future news media industry. Visual news has become the future direction of news development, and its dissemination speed will be faster and faster, and the degree of dissemination will be deeper and deeper. The news media should pay attention to digging the deep meaning behind the visual news. News visualization reporting will gradually become a normal situation, and the media should actively meet the challenges and constantly improve and enrich the content and form of news visualization reporting. Combining with the advanced management concept, the data content representation and presentation format can solve the problem of data compatibility and conversion in each database system, and the data has the semantic characteristics, which reduces the amount of data transmitted between networks. Promoting the design and construction of a news management system based on Java technology has a positive significance for the development of the journalism industry. It can effectively improve the intensity and popularity of modern news visualization and dissemination, making modern news visualization communication more expressive and appealing, which can effectively promote the development of the news industry in the era of big data.

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