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Python Implementation of Dynamic Effectiveness Modeling of Random Node Network Community Technology Assisted Open Chinese Excellent Traditional Culture Dissemination

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Abstract:This paper proposes a community key node shortest path algorithm based on random node social network. The algorithm divides the social network into communities and determines the shortest paths between core nodes and non-core nodes in each community. Facing the complex information and cultural environment and the influence of foreign cultures, it is necessary to use its media to integrate the advantages of new technologies and platforms, and to innovate the propagation paths and platforms of traditional culture. The path of mutual integration is expected to provide reference for the inheritance and promotion of China's excellent traditional culture and the enrichment of ideological and political education resources for college students. The hypothesis processing of the model is carried out, the dynamic performance evaluation model is established, and finally the dynamic performance modeling based on python is established.

Keywords: Python Implementation, Dynamic Effectiveness Modeling, Random Node Network Community, Chinese Excellent Traditional Culture

1. INTRODUCTION

The social network can be described as the application of graph, based on such algorithms to analyze the relevant properties of the social network [1], and the basis of the analysis is to calculate the shortest path in the social network, and the calculation process has problems such as complexity and performance. Many community discovery methods have been proposed in the related literature [2], one of which is to optimize the community quality index associated with the topology of the graph, such as the modularity proposed by Newman et al. [1]. For this idea of a reliable [3] community structure, many scholars have proposed related community discovery algorithms, among which the BiLPA algorithm that optimizes variant modularity is more typical [4].

"Learning Power" is a powerful and high-quality resource integration platform that organizes a large number of high-quality content through media integration to provide users with rich learning resources [5]. This article explores a new path for the spread of traditional culture through the cultural column created by "Learning to Strengthen the Country". Although the specific structures of complex networks [6] are different, and many complex and changeable network phenomena have emerged, they show surprisingly similar properties in a statistical sense. For example, most of the real networks show obvious community structures; It was the most glorious period in the history of Chinese [7] TV variety show development. And this brilliance is by no means just the prosperity of the show. I try to analyze it from three aspects [8].

The values of foreign western countries are constantly imported and infiltrated into our country, and the world outlook and values of the younger [9] generation are constantly being impacted, which in turn causes some young college students to lose their confidence in their own culture. The bad phenomenon of worshipping foreigners [10]. "Guidelines for Improving the Education of Chinese Excellent Traditional Culture". Therefore, based on the SysML of the DoDAF: Dept. of Defense Architecture Framework [11] of the US Department of Defense (DoD), the executable model modeling of SysML design and its system dynamic performance measurement and effectiveness analysis are discussed [12]. Since the late 2008s, my country's national defense science and technology community has gradually paid attention to the evaluation of the combat effectiveness of weapon systems, and successively invested a large amount [13] of manpower and material resources in research, and achieved gratifying results, and played an active role in the demonstration of national defense equipment [14].

It not only has important guiding significance for the construction of our radar network, but also the most ideal core node of a social network [15], that is, a node that is considered to be connected with all nodes in the network is the most important core node, such as the central node in a star network is obviously It is the most important [16] "core node" in the network, and the reliability of the entire network can be improved by focusing on protecting these core nodes. Moreover, it also has great inspiration for the tactics and tactics of our radar unit. At the same time [17], the operational effectiveness of the radar network is based on the specific situation and environment of confrontation, so it is necessary to do a good job in its evaluation [18].

The advantage of this type of algorithm is that it is simple to implement and can play a good role in artificially constructed networks. However, real-world networks are much more complex than artificially constructed networks, and in many cases, the quality indicators corresponding to real community structures are not optimal [19], which makes it difficult for the

above-mentioned algorithm based on metric optimization to detect the community correctly. With the development of communication technology, the way of information presentation is more multimedia. It is no longer a single communication symbol, but covers a variety of symbol forms, including visual image and auditory elements, as well as the use of integrated symbols of text and sound [20].

2. THE PROPOSED METHODOLOGY

2.1 The Random Node Network Community Technology

For example, the central node in the star network is obviously the most important "core node" in the network. By focusing on protecting these core nodes, the reliability of the entire network can be improved [21], and the entire network can be destroyed by attacking these "weak links". However in a social network it is a sparse matrix. Although abstracting complex systems in the real world into networks in graph theory is convenient for research work, it will inevitably miss some important information [22].

For example, users who belong to the same interest group in Reddit often have the same interest tags. If the attribute information can be converted into a part of the network, the internal structure of the community may be closer. A multi-layer network can be [23] defined as G = {G1,...,Gl,Em}, where Gl=(Vl,El) represents the network of the lth layer, and V={v1,...,vn} represents the multi-layer The set of all nodes in the network, Vl ∈ V represents the set of nodes in the lth layer network, and ElVl ×Vl represents the 1 [24] layer interconnected edge set. The algorithm combines hierarchical clustering and modularity optimization algorithm to iteratively update to form a hierarchical clustering structure. It is one of the most efficient and widely used community discovery algorithms [25]. The connection between the A community and the B community is realized. The path from A1 to A16 and the path from B7 to B1 are the shortest paths, and other communities are similar.

If there are multiple connections to other communities in the community, choose the one with the shortest sum of these multiple connection lines. The positions between them are unequal, but undirected edges cannot describe this relationship. Some scholars have redesigned the quality indicators according to the characteristics of directed networks. For example, Newman et al. proposed a directed version of the module on the basis of the original definition of modularity degree, the direction information of edges is considered, and it is one of the earliest community quality indicators based on directed networks.

Neural networks have been widely used to process graph data in the past two years due to their powerful ability to extract features. Especially with the rise of graph neural network, it can be well then used to solve problems such as community discovery.

2.2 The Technology-Assisted Open Communication of Chinese Excellent Traditional Culture

New media is born based on the integration of traditional media and technology. The combination of the two makes the dissemination of news information on the road of interaction, diversity and individuality. Therefore, traditional media and new media will share a lot of information. From the perspective of dissemination content, information sharing is the basic feature of media convergence. Chinese cultural variety shows are interpreting Chinese cultural content with a brand-new look, well performing the task of letting the world understand and understand China, highlighting the innovative spirit of Chinese art, and showing firm confidence in Chinese culture.

"May 4th" New Culture Movement caused a fault in traditional culture. In the early days of the founding of the People's Republic of China, China's poverty and backwardness and the rapid rise of the West led to a large number of intellectuals blindly worshiping Western culture and completely denying excellent traditional culture, believing that Chinese traditional culture is the cause of poverty in the country The culprit behind. "Learning to strengthen the country" can use the innovative application of big data, cloud computing, mobile Internet and other new technologies to establish users' thinking, analyze users' previous reading interests, and accurately push through user analysis to provide users with exclusive information. In the era of mobile Internet, everything is a medium, and information explodes. There must be enough reasons to attract the public's attention in the black hole of massive audio and video information. Content is informative, which is the most important factor in attracting public attention and a certain degree of attention. Finally, it is necessary to improve the curriculum setting, strengthen the construction of the teaching staff, and combine the excellent traditional Chinese culture with the ideological and political education of college students. It is not a mechanical or far-fetched combination, but an organic integration. It is necessary to fully consider the teaching content of the theoretical course of ideological and political education and the excellent tradition. Cultural fit point, to achieve seamless connection. When modifying the model transformation, the established CPN model should truly reflect the isomorphism of the system design, that is, the static organization of the static model structure, attributes, data flow and resource configuration of the view and product design.

2.3 The Python Implementation of Dynamic Performance Modeling

The CPN model is transformed from multiple design product models. For example, the SysML class diagram, activity diagram and state diagram of the system design need to be transformed together to obtain the basic CPN executable model. This also needs to be carried out: (1) Model structure verification to ensure the isomorphism of the CPN model and the design model of the combat view or system view. (The M in C rla method uses random experiments and statistical analysis methods that have the same probabilistic properties as the problem to be solved.

Statistical estimates and probabilistic characteristics required for solving: For problems in mathematics, physics, engineering technology, and production management, first establish a model of the stochastic process of the problem, and determine the indicators of the problem. It is understood as a measure of the difference between the initial combat situation and the final combat situation. The radar networking operation is different from the fire confrontation. The destruction and reduction of the target will not occur, but it is reflected in the radar network's perception of the real existence of the air target. superior. To quantify how well the system design fits the mission requirements, they are measured in the same metric space

Hot topics are all effective means of publicity and play an important role in dissemination, but if the content itself is meaningless and low-value, no matter what method is used,

good dissemination effects cannot be achieved. Good content and new means are definitely the best way. Moreover, only one attribute that is the same often does not mean that there is a strong connection between nodes.

3. CONCLUSION

This paper proposes a shortest path algorithm for community key nodes in social networks, which brings time efficiency to the dissemination of the entire social network and can be realized at the fastest speed, making the traditional culture a new look, and widely disseminated, establishing a good sample of media integration, and providing a good reference for future media integration platforms. Compared with the traditional dynamic performance evaluation, it is no longer a Python static average measurement based on probability and statistics, with search performance as the core.

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