Knowledgeable Sports Information Service Based on Digital Sports Theory

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Abstract: The 21st century is an era dominated by the knowledge economy, with the advent of knowledge economy and the rapid development of modern information technology, knowledge as an important social productivity factor, has the increasingly prominent role in the socio-economic development. This paper is based on the related theory of digital sports, analyzes information needs in the digital sports era of college sports information users, sports training information users, community people and other sports information users, deeply explore the knowledgeable sports information service from three aspects of sports SDI tracking service, physical education services, novelty of physical education services, and finally proposes strategies for knowledgeable sports information service: expand the scope of services; meet the needs of society; establish information resources security system of knowledgeable sports information services; strengthen the knowledge management of information agencies.

Keywords: Digital Sports; Sports Information; Knowledgeable; Service

1. Introduction

Aerobics is a sport belongs to subjective assessment classification, in accordance with the content and spirit of relevant rules of aerobics; rule-based fair judge can be achieved in a greater degree. Undeniably, there are differences in the aesthetic tastes of judge performers, i.e. referees, and the understandings and the use of the competition rules etc., resulting in similarities and differences in the final score. Whether international or national competitions, or provincial, prefectural and municipal events or internal competitions in units, industries, institutions, there are judging controversies in varying degrees, which is a major feature of sports in subjective assessment classification. Select several operable and more practical methods of scoring tests, use computer network technology of numerical analysis, establish the conventional test procedure of score data of sports competition, provide data support for objective score of sports competition, and provide auxiliary reference for the results appeal and the game arbitration [1].

2. Foreword

The 21st century is an era dominated by the knowledge economy, with the advent of knowledge economy and the rapid development of modern information technology, knowledge as an important social productivity factor, has the increasingly prominent role in the socio-economic development. Information has become the most important factor of production and strategic resources, information transfer, communication and use become intrinsic motivation of social progress promotion, knowledge innovation and application ability become the organization's core competencies.

As early as the fifth Olympic Games in 1912, the first time to use athletic electronic timer and key photographic equipment, marking the beginning of information technology applied to sports. With digital technology widely used in sports, Zhang Li from the Sports Information Center of General Administration of Sport of China, in his monograph "Digital Sports Exploration" for the first time proposed "digital sports" concept, defined the "digital sports" [2] is as in sports, the application of digital technology, through professional digital information of collection organization, analysis, sports dissemination management, the human body, sports entertainment, sports training and competition, changes in the sports market, the conscious organized social activities to improve the objectives and tasks of a new era of sports. Therefore, based on the theory of digital sports, in-depth explore knowledgeable sports information services, have important strategic significance to promote sport information digitalization, and enhance the knowledge of sports information services, value-added, scientific feature.

3. Information Needs of Sports Information Users in Digital Sports Times

With the development of the digital sports theory, digital technology in the field of sports are more widely, global

sports information resources rapidly passed in a short time, information needs of staff were in sports field are increasing. Information needs level and access ways of user are ever-changing, information needs have presents professional, timeliness, continuity, diversity trends.

3.1. Information Needs of College Sports Information Users

College sports information users because of their industry characteristics, can be divided from the nature of work into different types of physical education staff, sports scientists, sports administrators, coaches, athletes, physical education students, but as a university, teachers and students are its mainbody. College sports information users need to understand the information development of physical education at home and abroad in the training objectives, curriculum, teaching arrangements and so on, according to assume the task of teaching and research, the main need for teaching materials, teaching methods and research in the field of information, the information needs have social and cutting-edge features. College sports information needs users are changing from the traditional information query to the integrated, knowledge-based information services.

3.2. Information Needs of Users of Sports Training Information

Over the years, all levels of information institutions in training and research and teaching aspects, have effective information resources, and provide the appropriate information services. However, information services carried out around the athletic sports and high-level sports training practice are weak. Sports training information service must face for first-line sports training activities of coaches and athletes, provide proactive, personalized service. Its purpose is based on the information needs of coaches and athletes and the characteristics of innovative applications, through a variety of possible ways and means to provide various forms of information services, to ensure the initiation and innovative ideas to create the smooth progress of activities, provide protection for the coaches guidance in the practice of competitive sports for athletes to create outstanding results.

3.3. Sports Information Needs of the Social Mass

With increased awareness of sports, sports lifestyle gained popularity, more and more people participate in physical exercise, and gradually formed fitness, lifelong exercise habits. People's sports information society, literature, dramatically increasing demand, have an urgent need for physical exercise popular classes. Physical fitness is the systems engineering to promote the Chinese nation building, sports mass information is an integral part [3]. Social masses needs information of fitness methods and fitness equipment, social sports instructor training, physical fitness standards of different gender,

people of different ages and test methods for physical training, etc.

4. Knowledgeable Sports Information Services in Digital Sports Era

4.1. Sports SDI Tracking Service

Sports SDI tracking service, the information department according to specific task needs of the user, in addition to the preparation of special bibliographies, indexes, abstracts feed, also to conduct special studies and literature review to compile, research reports, thematic summary on a regular basis, will issue to counterparts to provide information, it is an initiative literature information service. Chinese sports information field closely integrates sports industry practice, in preparation for big games at home and abroad, carried out large, high-level information research and SDI tracking service. Digital sports era, using computer technology for users SDI tracking service, the way via e-mail or report, regularly or from time to time to provide the latest information, push the information, which is a way the sports information serve knowledge-based. Sports SDI tracking service at this stage is to carry out major research projects and sports training for the fixed tracking service.

1) SDI Tracking Service of Research Projects
Contact information department and research department, to establish a cooperative relationship. Before SDI of the research topics, select subject project well before and check for new feasibility studies, ensure that the subject novel, scientific, so that project accurately; after SDI, involved in the research process of the subjects, take the initiative to understand and a comprehensive master the implementation of research projects plan, the rate of progress. According to project requirements, search related information, take the initiative to collect, process the latest literature information, in time for the researcher to provide information synchronized with education, training, research, enabling them to grasp the current situation and the latest research progress, provide simultaneous development to literature and documentation needs, progress must be based on the subject and the reader needs, maintain smooth flow of information feedback, often about the user evaluation of the effectiveness of services, timely adjust service program to enhance the effectiveness of information service.

2) SDI Tracking Service of Sports Training
Special services and SDI as sports information high-level services of information, in the new network environment, its role will be fully exploited, information service can deep into coaches, athletes, scientists, the depth to the training section line, to keep abreast of their needs, use the accumulation and the advantage of novelty of internet knowledge, take the initiative to provide tracking services. At the same time, you can also take advantage of the

rich information resources on the Internet to provide users with comprehensive topics, SDI.

4.2. Physical Education Services

Physical education service is to provide a series of professional knowledge service, academic services model is organized human and resources according to subject areas of expertise, subject librarian system is the best college sports disciplines service model, is a way of knowledgeable sports information service. The academic librarians of disciplines have scattered to various departments related fields, in-depth understanding of user information needs, information behavior and feedback, that provide users in-depth, knowledgeable and professional integration services, more responsive to the needs of technological innovation and sustainable development of the school [4].

3) Digital Reference Service (Digital Reference Service, DRS)
Digital reference service is a kind of information services form that takes human resources as the media, information push as the core technology, and Internet-based. Digital reference service is a comprehensive information service, according to the different methods of digital reference, for the methods of digital reference, have the broad and narrow senses. Broad sense includes telephone consultation, based on electronic forms of reference service, while the narrow sense mainly means e-mail consulting, e-form consultation, BBS consulting, real-time consulting services.

Information needs of the literature of modern users changed from a single documentation service to integrated information services set of documentation services, on-line retrieval services, query services, document delivery services, reference services. In order to meet the changes in new situation the reader's information service demand, in addition to provide face to face physical search, online STARS publicity, conduct special services, the development of secondary literature and other services, also to establish an interactive platform, for users to anytime, anywhere contact with the sports information staff, quickly answer the reader's doubts [5].

4) Navigation Services of Online Sports Information Resources
Information departments use various search engines, collect nodes online with a sports theme or relative topic, set the search in accordance with the principles, provide information distribution about physical resources to guide users to find and use. The establishment of professional sports information resources navigation, can save time for users to find information cues, allows users to easily access network resources they need. Establishment of interdisciplinary network navigation, direct the user to retrieve information by subject categories, provide navigation services for the user search. The information staff systematically collect, compare, analyze a large number of related professional of websites, web pages, and all types of electronic publications, databases, and utility software, by searching, establish subject project database around the user needs, recommend to the user the targeted, ease of use, good.

5) Multi-level, Personalized, Comprehensive Integrated Information Services
Disciplinary service is an approach of sports academies to develop knowledgeable sports information service, subject librarian-led, for a particular sports discipline, meet users' information needs by discipline information access and discipline intelligence analysis. First, use relevant computer technology and network technology, integrate information resources relevant to the subject of a disciplinary, on a regular basis to provide teachers with academic developments, professional forums, reviews, research reports and literature review information and provide proactive information push service; Secondly, for some key research projects, academic librarians should take the initiative to investigate and understand the school's research at the progress of the subject project and task, etc., to develop SDI program, search strategies, and create custom service database, a really good job from project to project results, set the whole process of problem identification tracking service; thirdly, provide personalized service for academic leaders, track academic leaders, doctoral and key disciplines, provide full SDI document information and other services for their teaching or research projects.

4.3. Novelty of Physical Education Service

Novelty in science and technology activities in recent years, the work is ever more important, novelty institutions and Novelty teams are also continue to grow, three novelty institution system has been basically formed, the college, the provincial intelligence, research institutes, novelty institutions of the Ministry of Education which rely on colleges are increasingly showing their resources and personnel advantages. At present, the sports community has not yet completed a formal novelty workstation. Novelty is important to the research project, appraisal, research and investment management and decision-making, with the rapid development of digital sports, technological innovation of sports business and research staffs need information support, in order to effectively avoid duplication of reporting, therefore, sports community has an urgent need to establish physical education novelty station.
Beijing University of Physical Education under the leadership of General Administration of Sports of China, as a national leader in sports academies, has a great influence on sports science and education system in the country. In Beijing University of Physical Education, the library have carried out novelty services in 2008, 2010, and declared novelty station of the Ministry of Education twice. Novelty station has a wealth of literature resources

and high-quality physical education professional staff for new teams, in order to improve the quality of sports novelty and efficiency, improve the recall rate of the literature, introduced the world's largest professional DIALOG international on-line retrieval system. Established a nationwide investigation of sports novelty portal, developed a common novelty management platform, establish a database of novelty items. Novelty station will rely on the schools, establish collaborative relationships with other colleges of sports, sports scientific research institutions, through various channels, online delivery in particular, carry out novelty search service [6], provide objective factual basis and intelligence consulting services for research and development of sports and innovation capabilities.

5. Service Strategies of Knowledgeable Sports Information Services in Digital Sports Era

Information services in the digital environment have rapid development, network gives more convenience for information services, to some extent guides the sports information business from information services to knowledge services. In the digital sports era, sports information services are also facing changes to knowledgeable services. Knowledgeable sports information service should take information services in the knowledge economy as a starting point, extensively collect information of sports training at home and abroad, competition and so on, deep-level mine, integrate all kinds of information resources, knowledgeable sports information services, meet the sports information needs of different users, provide comprehensive, multi-channel, targeted information services for coaches, athletes, etc.

5.1. Expand the Scope of Services, Meet the Needs of Society

With the community's increasing demand for sports information, in face of a large number of sports information needs, resources in Chinese sports information organizations appeared in a short state. Society sets forth requirements not only increased demand on the types, the number of sports information, but also deep knowledge services. The information agencies must develop a set of knowledge service model adapt to market development according to their own characteristics, based on the needs of teaching and research requirements, improve knowledge service, increase socialization.

Change the traditional way of information service, change the information institutions into information centers, knowledge centers, education and science centers of the whole society. Information institutions staff takes advantage of fast and convenient service network technology, provides tracking service for the user's specific issues and projects, the time and from time to time information services, and continue to extend the depth and breadth of information services, form a series of information services. Creative work by staff of information, meets users' specialized, individual needs.

5.2. Establish Information Resource Security System of Knowledgeable Sports Information Service

Construction of information resources is the basis of physical knowledge services, sports information resource sharing is the key to the construction of information resources. Knowledge innovation requirements on information agency or unit are fast, accurate, timely and systematic manner to provide the latest literature information, meet the needs of all users. In network environment, range of collection resources are more broader, we must attach importance to the construction of library resources, and also should pay attention to the construction of virtual resources and databases. Establish thematic databases according to disciplines and research project, the users in key disciplines can investigate and analyze research directions and public relations of the disciplines, forecasting the direction and development trends of the discipline areas, which is a very important job for the construction of key disciplines in universities and research institutions. Create a virtual collection databases, download the required documents through search engines or professional websites, and organize them into different categories, implement deep processing based on user demand characteristics.

Establish a network resource disciplines navigation system. According to some models and methods, through the Internet search, tap information resources needed by the professional disciplines, through classification, indexing, organization and dynamic linking, form e-journals and other bibliographic and thematic knowledge networks; and also use network technology development, achieve information resources sharing between units, develop interlibrary lending and rapid transfer of knowledge and information and so on.

5.3. Strengthen the Knowledge Management of Information Institutions

To achieve knowledge services, it is necessary to establish effective mechanisms for knowledge management, organizational management, technical mechanisms and environment and incentives mechanisms conducive to innovation, communication, learning and knowledge application. Encourage information services staff actively put into the deep development of information resources and knowledge services, tap the potential value of knowledge. Use knowledge to manage concepts, meet user needs of discipline-based knowledge services, use knowledge to solve problems and create a strong learning and development environment, up knowledge service to a higher level.

Enhance knowledge management, we must first be "people-oriented", user-centric of subject knowledge

services, all activities around the readers and users to carry out, take user satisfaction as service standards; on the other hand, serve the teaching and research, protect academic knowledge flow, Restructure library organizations, establish rational assessment system of subject knowledge service, promote service spirit of innovation, learning collaboration, sharing, information law-abiding; build a positive service culture, use innovative management concept to promote service model, mechanism innovation, thus contribute to knowledge innovation.

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