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INFORMATION TECHNOLOGY FOR SPORTS PROFESSIONALS

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Abstract

Information Technology as other technologies can be the relationship between hardware, software network and capabilities of these tools and measures that can be defined due. Technology crucial to production and services. New technologies and advanced methods of the past quickly outdated and will lead and support services are superior. Volume of information available to information technology organizations and individuals increases. Great sports institutions in the world is now one of the largest organizations are the way they as an indicator of advanced and developing countries have become. Economy suffered from changes made with a very large volume of trade and job creation as one of the phenomena of modern life and human life has become. Information technology had made played vital role in improving various parts of human being life. It had played unexpected role in physical education, sports and games for making it more significant among other professions.

Key Words: IT, CT, LAN, WEB, WWW, WANS, Hawk-Eye and AI. Technology Etc.

Introduction

THE TECHNOLOGICAL REVOLUTION

We are living in the midst of one of those very unusual occurrences that come along once every few generations a society wide paradigm shift. The close of the last millennium has seen a fundamental change that is moving society the age of industry to the age of information. The currency in this new society that is being formed is information and the medium of exchange is called IT (and sometimes computer technology-CT). It is simply the tools and methods used for the identification, organization and manipulation of facts that we call data. IT has become engine that is driving all sectors of today's economy be it Industry, Government, Education or Indeed, Sports.

The most important piece of equipment that lies at the heart of the whole IT process is the computer. The computer and the software that it runs is an essential element in the new societal paradigm and it is a key to success for the modern sports manager. It is the piece of equipment that allows the sports administrator to maximize the return on scarce resources whether this is people, facilities and equipment or finances. In turn, it is also perhaps the single most important tool to the sports administrator to extend the reach of sport and recreational programming to as many potential participants as possible.

Just as money has been the currency and a source of power in the old paradigm, information is the currency and a source of power in the new paradigm. No where is the old saying "that knowledge is power" more true than in a society where information or data is the force that drives the new economy. The secret to managing knowledge and information is in the development and maintenance of computer databases.

A database is nothing more than an organized collection of common records that can be searched, accessed and modified. Database software is very widespread as most standard office computer software packages will typically have a simple database program in addition to word processing spreadsheet and presentation applications.

There is, however, a far more powerful and useful kind of database for sport managers than the one that comes in the standard software suite: the relational database. A relational database is a data management system that stores information in a series of tables consisting of rows and columns of data. When the operator conducts a search, a relational database allows the individual to match data from one table with data from a second to produce a third table or a report.



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An illustrative example is that of an individual charged with overseeing a complex sports competition, the details of which have been entered into a relational database. The time for a scheduled event can be pulled from one table, a roster that has the names of qualified referees who can officiate the even from another table, their availability from a third tables resulting in a report that lists all of the personnel who can undertake the officiating task at the appointed place at the appointed time. This task which could take hours of manual manipulation from paper records can be done in a fraction of the time from digital records. Similar event management software can assist the sports manager with a myriad of other tasks associated with the competition ranging from facility scheduling, equipment set up and knock-down, or even ordering soft drinks for the concession stand. From the foregoing the value of using IT tools can be readily seen for the organization of a competition. These tools are even more important for the day to day operation of the sport organization as can be seen by the kinds of spots program information that can be contained within these databases. First is athlete specific information such as team rosters that include biographic information including name, sex, age, contact information and even clothing sizes for team uniforms. The same database may also contain details on medical conditions, performance history, or other participation characteristics of the athletes.

Another common use is the development of rosters of program support personnel such as officials, timekeeper's drivers or medical staff. Aside from details such as their addresses, a database of this type might also contain information about availability and reliability. For example do they actually show up when they volunteer. Money is always an issue for today's sport management professional. Databases are particularly useful for tracking donors or potential donors whether and they contribute money or in-kind services. In addition to the expected biographic information will be other keys to successful fund raising such as the source of their motivation or affiliation and the frequency with which they give.

Databases are also essential for other types of administrative information. Examples include accounting and business records, employee files, equipment inventories or facility maintenance records. The organizational marketing information system is also typically a database program in which is tracked information such as season ticket sales, gate receipts or merchandising sales. It is particularly useful if different software applications interface with each other seamlessly which is to say do the programs talk to each other can for example the date entered in the MIS resulting from ticket sales be imported directly to the accounting program. To be effective, databases can and should be regularly updated to record changes. Bear in mind that the passage of time presents a more comprehensive picture of most activities and the ability to record change and make sense of it is essential for long term survival. Further, there is nothing as constant as change, particularly in sports organizations, and a well thought out and maintained database is a great way to develop and maintain an "Institutional memory" a record of those changes and the impact they have had on the organization.

THE INTERNET

It is important to note that computer networks need not be limited to a single site or facility. Wide area Networks can link together sports administrators located throughout a country. For example all of the regional offices of a National Sports Governing body such as the National Football, are other national sports associations can be linked together regardless if their Geographic location. All of the operatives so linked can share administrative and programming information and communicate with each other cheaply and efficiently through the medium of e-mail. The computer network with which the public is most familiar is the internet and the World-Wide-Web known simply as the "Web" is what most people think of when we say the Internet while the internet has been around for decades going all the way back to ARPA net in the 1960s the Web is a comparatively new innovation first introduced in the mid 1990's It is a digital medium which presents information in text, audio and graphics in a simple hyper-text computer language readable by a browser. This medium has simply exploded and today there are more than 15 million web addresses called Uniform Resource Locators (URLs), many with hundreds of individual pages on their sites. Thousands or applications for new URLs are received every week.

The ways that the Web has changed society are almost too numerous to mention. Suffice to say it has become n extremely important medium of communication, education and commerce and its importance in these areas will only continue to grow in the future. In terms of communication, for example, USA today which is the closest thing a national



newspaper in America gets more than three million visits per day. Some 60% of these visits are to its sports pages. In terms of education the concept of distributed learning or distance education gains more adherents with every passing day.

The Web is currently used by professional sports teams in ways that the developers of this technology never envisioned. For example, there are no English language radio broadcasts in Montreal for the Montreal expos professional baseball team. Fans wanting here the play- by- play in English can only do so by calling up the team's website and listen to it coming across as an audio feed. Another example of how deeply the internet has penetrated professional sports is how some Pro-Hockey teams now require their players to have e-mail addresses as a means to interact with both the team administration and their fans. These examples lie at the heart of how the internet will affect sports in the future: thought the changing of the way that the sports fan will consume the sport product. Where in its infancy sport marketing did not extend much beyond putting out a sign on the side walk saying "Game Today", new sports teams have will developed and extensive Websites to more effectively market to their customers. The trend in this regard is also clear. What will emerge are networks of team's and users bound together by a common interest and driven in part by advances in information technology.

E-COMMERCE

It is also appropriate to briefly examine how the web will change the sale and distribution of sporting goods which is central to running sport programs. The relative cost for sports equipment scan be an issue for the profession, particularly in terms of trying to broaden the appeal of sport to the greatest number of participants. E-commerce through the internet hold the potential for containing costs for sports equipment as illustrated by the following example. In traditional model of manufacture and distribution through a sporting goods store, it is not uncommon for a tennis request which cost \$40 to manufacture to be marked up as much as 300 to 400% to as much as \$160 as it moves through various wholesalers and retailers in the distribution chain to tennis players. With an e-commerce arrangement whereby the manufacturer can reach the players directly without going through middlemen, The mark-up in distribution can be reduced to as little as 50% of the traditional retail prince resulting in a sale price to the end user of about \$80. Very simply the more middle men in a distribution chain, the greater the benefit derived to the end user from using e-commerce distribution.

Most professional sports in the United States have long used instant replay and other highs-tech aids to help referees make the right call. Gridiron has used video replay systems to check referees calls for many years. Basketball referees use replay systems to make sure players are shooting within the time allotted by the shot clock. In International Cricket the third umpire has been used, one sitting off the ground with access to TV replays of certain situations (such as disputed catches and boundaries) to advise the central umpires. The third umpire is also asked to adjudicate on run out decisions, which he makes without consultation with the two central umpires. One sport that has resisted the use of high-tech assistance is Soccer/ football. Replays could be used to decide off-side decisions, whether a ball passes over the goal line, and clarify penalty decisions.

HAWK-EYE TECHNOLOGY

Hawk-Eye is the name of a computer and camera system which traces a ball's trajectory. It is being used in international Cricket and Tennis, and many other sports are also looking at making use of this technology. The system is also being trailed in soccer. The Premier League of Football in the UK has agreed to the introduction of goal line sensors after being given approval by Football's Rule-makers. The system being developed by the UK Company Hawk-Eye, would give a definitive decision on whether the ball had crossed the line. The Hawk-Eye uses a camera taking 600 frames a second on the goal-line. The information is analyzed by computer and sent to the referee's headset or a device on his wrist. Hawk-Eye uses six or more computer-linked television cameras situated around the court. The computer processes the video in real-time and tracks the path of the Tennis ball on each camera. These six separate views are then combined to produce an accurate 3D representation of the path of the ball.



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COMPUTER SOFTWARE

There are numerous software packages that are designed for fitness and nutrition professionals to organize data and produce reports, ideal for visitors to this site. Here are a couple of packages that come recommended by Top end Sports.

- Body Byte- A Universal standalone computer software program specially developed to comprehensively organize and manage all the information associated with nutrition, training and fitness.
- Team Beep Test- The most versatile and useful software for conducting and recording results of the beep/beep test, with results recorded directly onto your computer.

AI TECHNOLOGY:

Artificial intelligence has become a cornerstone of modern professional sports, helping athletes, coaches, teams, and organizations improve performance, enhance fan engagement, and streamline operations.

CONCLUSION

The world of sport is continually changing over the years, and the use of technology is just one of those areas that have made an impact on many sports in the modern day. One criticism of the use of technology is that it can slow down the speed of the game, but on the other hand for many people it makes watching it more enjoyable to see the correct decisions being made. Information technology had made played vital role in improving various parts of human being life. It had played unexpected role in Physical Education, Sports and Games for making it more significant among other professions.

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