



The Influential Aspects of Cyberspace in Promotion of Sports

Nabi Motallebi^{1,*}, Kamelia Davoodzadeh^{2,3}, Somayeh Borjalilu², Bahareh Kashanimovahhed³, Mahdi Anbari⁴, Hossein Nikfarjad³, Alireza Bahrami³ and Kamran Bagheri Lankarani¹

¹Health Policy Research Center, Institute of Health, Shiraz University of Medical Science, Shiraz, Iran

²Virtual School, Tehran University of Medical Science, Tehran, Iran

³ACECR, Beheshti University of Medical Sciences, Tehran, Iran

⁴Health Metrics Research Center, Iranian Institute for Health Sciences Research, ACECR, Tehran, Iran

*Corresponding author: Health Policy Research Center, Institute of Health, Shiraz University of Medical Science, Shiraz, Iran. Tel/Fax: +98-2133439201, Email: dr.motallebi@gmail.com

Received 2017 November 30; Revised 2018 June 13; Accepted 2018 June 17.

Abstract

Background: The promotion of sport and physical education is an important step in a country's development; and sport, due to its role in the individual's personal and social life, is of special importance to people and governments. Sport is a socio-cultural entity which affects social organizations and structures. On one hand, the level of a country's social and cultural development can be judged by sport; and on the other hand, improvement in sport is dependent on the existing capacities in the society.

Objectives: With the rapid growth of cyberspace in our country, this study was performed to identify the most effective aspects of cyberspace for increasing the prevalence of sports in Iran.

Methods: This study uses a qualitative approach, in which 35 of either the sports managers of medical science universities with education in sports, master's degree level sports experts, physical education experts or former national team member sports veterans were chosen in a purposeful matter and interviewed in a semi-structured way. Data analysis was performed through content analysis using open coding and axial coding.

Results: After assessment of the content of the interviews, 5 influential aspects in sport promotion were identified. These consisted of providing information, education, and network of relationships, cultural improvement and motivation. 20 sub-categories were also considered.

Discussion: These findings can provide the necessary information for planning and appropriate use of the country's virtual space potential in order to further promote sports and exercise.

Keywords: Exercise, Sport, Internet

1. Background

The importance of exercise is well known to everyone. Its relationship with things such as steady development, economic and social development, peace, collaboration, environment and other things have deeply affected societies (1). In fact, exercise has become an essential part of modern life (2) and is considered as part of a nation's culture and identity (3). In the current days, exercise has become a multidimensional tool with a variety of effects; which has shown its role in people's economy, health, healthy use of the spare time of particularly the younger generation, creating social relationships among people, prevention of disease, avoiding social tensions and behavioral derangements (4).

Physical education is an important part of education, which facilitates all aspects and positive talents through bodily action (5).

Today's exercise is seen as one of the most important tools for proper upbringing of the society. Political agencies (governments and parties) and social organizations, NGOs, as well as educational, cultural and religious organizations use exercise to guide people. Governments have found out that they can have a more cooperative society with sport. Such a take on sports is new and has emerged from the west (6).

The expansion of sport is an effective step in a country's expansion and because of its effects on people's personal and social life, is of interest to people and governments (5). Sport is a socio-cultural entity which affects social organizations and structures. On one hand, the level of a country's social and cultural development can be judged by sport; and on the other hand, improvement in sport is dependent on the existing capacities in the society (7).

The usual approaches towards the promotion of sports

in different societies are: creating new capacities (mostly developed countries) and using current capacities by organizing or re-engineering existing capacities (mostly developing nations, which face limited resources). The general approach of the Iranian physical education and sports organization's plan towards the promotion of sports is the combination of both (8). In this plan, different aspects having influence in sports promotion such as financial resources, human resources, culture, legal aspects, the sport sciences, sports associations, installations and equipment have been taken into account for sports promotion (9).

The advances in information and communications technology (ICT) such as the Internet have played an important role in people's life to an extent which the fundamental changes caused by the emergence of these technologies are hard to ignore (10). Alongside improvements in technology and communication, human collaboration has become possible within these new environments. Among the newer environments, one can name email, Internet access, social networks, intelligent systems capable of sending messages and data through Bluetooth and other wireless connections as well as advertisement channels. The vastness of information exchange in these channels in both quality and quantity has led to the establishment of certain trends which seem to slightly differ from the common rules of the society. This is because of the difference of people's behavior in cyberspace and as a citizen, since cyberspace allows for having a large number of relationships with a great number of people. Other features of cyberspace such as being without border and fluidity can lead to people having different behaviors compared to the outside world.

These days, using words such as virtual government, virtual learning, virtual entertainment, virtual banking and similar terms points out to a "dual space" world. The population of the "virtual" environment is constantly increasing. Since the year 2000 up to now, the worlds "virtual" population has increased 801% and currently half of the world's "real" population is using cyberspace (11).

Cyberspace is a new generation of social relationship environments which despite their short age, have found a large place in people's lives. A large number of people from various social and age groups have gathered together and communicate from very large distances in the real world (12).

When talking about cyberspace, one might imagine a computer connected to the Internet; while this only consists a fraction of cyberspace. From Bell's point of view, cyberspace is not a collection of hardware, but a group of symbolic definitions which exchange a network of ideas and beliefs in the form of bits (13). Dehghan believes that cyberspace is a vast worldwide network, which connects

various computer networks of different sizes and even personal computers using a variety of hardware and software through communication agreements (14). Also, Mark Visooki's study has shown that over 65% of young people who use social networking believe that social media are growing in industries and in particular, the sports industry. While sports associations are increasing the number of sports media available through Facebook, Twitter, Instagram, and other applications (15).

In our society a lot of attention has been paid to ICT. In the country's fifth plan for development, cyberspace has been seen as an area for economy and economic productivity (16). Therefore, considering the importance of cyberspace in the development of nations and the undeniable role of cyberspace in forming and taking direction of people's beliefs, views and approaches; and on the other hand the need of promotion and development of sport in the country due to its effects on the economy, society, culture and health, as well as proper use of the potential of cyberspace, the current research was conducted with the aim of identifying the influential aspects of cyberspace on sports promotion.

2. Methods

This study is based on a qualitative approach with exploratory methods. In the exploratory method, the researcher doesn't define a certain structure for introducing the problem, data gathering as well as data analysis. Therefore the researcher only approaches the problem with a general idea and attempts to discover the depth or extent of the problem. In this way many of the unknown phenomena or relationships are discovered or clarified. In exploratory research, more and in depth information is gathered from a subject and a better understanding is attempted to be achieved. An exploratory study usually has the following steps:

- An exploration by studying available documents and resources.
- Asking the people with experience in the subject at hand.
- performing a series of structured queries (17)

For this reason, in order to gain information regarding the experience, views and suggestions of sports experts with the aim of identifying the role of cyberspace in sports promotion, a basic structure for an interview questionnaire was designed first and researchers prepared questions regarding the role of sports media in the country's sports promotion. The aim of this was to determine the aspects in which cyberspace, as a new form of mass media was able to influence sports and to find out whether there were any neglected aspects which needed attention. The

opinions of the experts were asked using an in depth interview (a semi-structured interview). This type of interview was chosen to allow open discussion so that the interviewees were free to express their opinions in their own words. In these interviews the opinions of the experts were carefully listened to and appropriate support was given when they were talking. Therefore, in depth interviews were used to clarify the subject as well to bring out details (18).

The study participants of this study were sports experts. They were chosen through purposeful sampling. Therefore 35 of either the sports managers of medical science universities with education in sports, MSc level sports experts, physical education experts or former national team member sports veterans were chosen. At the beginning of the interview, a brief explanation was done regarding the aims of the study and since the study was semi-structured, in order to prevent the answers from deviating from the subject, the speakers were guided. The interviews lasted between 40 to 120 minutes and were recorded, written and then carefully analyzed.

Ethical considerations regarding confidentiality of the recorded interviews were paid attention to and the subjects were given the right to refrain from talking at their own will. The questions asked in the interview are presented in [Table 1](#).

Table 1. Questions Asked in the Interview

No.	Question
1	What is cyberspace?
2	What sort of relationship is there between cyberspace and physical education?
3	How does cyberspace affect physical education and what is your take on it?
4	How can cyberspace be used in sports promotion (public attention to sports)?
5	How can cyberspace be used to promote university sports?

In this study open coding was employed. After carefully reading the interviews several times, the text was openly coded. The meaningful units were introduced, explained and named. These units are words, expressions or larger pieces of text. Using open coding, the researcher reviewed the data line by line and after recognizing the processes, a code was given to each sentence. In this way the highest amount of codes were recognized and complete data assessment was confirmed. In this stage, the codes were basic codes, since the exact words of the interviewee were used. After extraction of the main sentences, similar or meaningful parts of the interview were also registered as codes. Afterwards axial coding was performed. In axial coding, the previously created levels were expanded

and each level had sub-levels, the relation of which were determined. A necessary aspect of axial coding is consistent comparison of data. Therefore the coded data were compared and grouped into clusters which were grouped based on relevance. In this stage, all the codes and initial groups which were created in open coding were combined and levels with newer meanings were formed.

The final results were checked with the participants so that they could confirm that their views were reflected properly. Active listening to the sports specialists and use of the views of other researchers helped improve the validity of data.

3. Results

After conversion of the 3 interviews into open and axially coded data, 5 themes were regarded as influential aspects of cyberspace on sports promotion. These consisted of providing information, education, communication network, culture improvement, motivation and interest. These have been expressed comprehensively in [Table 2](#).

Some examples of identified factors which influence sports promotion are mentioned here:

3.1. Providing Information

Most of the participants in the current study claimed that providing information about sports and physical education can facilitate communication, sports advertising and public health promotion.

“In some instances, cyberspace can have an even bigger role than human resources. Web pages can provide a lot of opportunity for increasing people’s sports awareness. Providing information for people can be done in a short time with minimal cost and advertising in cyberspace” (manager and sports specialist, 45 years old).

3.2. Education

The interviewees stated that using cyberspace for teaching fundamentals and theories of physical education can have a great impact. Although its use instead of the practical theories could lead to further poor mobility.

“All majors and specialties can help expand and promote sports education. A fine example being virtual universities which allow studying from home. The same can be applied to theoretic sports education” (MSc in PE, 40 years old).

Another one of the concerns of our participants was the supervision on content in cyberspace. They believed that content should be created based on the audience and should be done so by sports specialists.

Table 2. The Categories and Concepts Derived from the Interviews

No.	Category	Concept
1	Providing Information	General for The Public
		Awareness about the disease associated with inactivity and promotion of health
		Using cyberspace for providing information and advertisement
		Providing information and acquisition of sports information in a short time and low cost, easy access
2	Education	Use of cyberspace for relevant sports information
		Use of cyberspace for promotion of sports basics and fundamentals
		Use of cyberspace for teaching sports federations
		Use of cyberspace for teaching sports theory alongside physical activity
3	Communication network	Use of cyberspace in order to create specialized sites or social networks
		Use of cyberspace for creation of sports centers between managers and learners
		Use of cyberspace for videoconferencing and communication between coaches and managers
		Forming sports associations and groups in cyberspace
4	Culture improvement	Using cyberspace to create sports culture among people.
		Use of cyberspace for the general culture of sports.
		Using cyberspace to create trends and change people's views
		Institutionalizing the sporting culture through cyberspace
5	Interest and motivation	Use of cyberspace for creating a sense of competition and motivation
		Use of cyberspace to identify the needs and interests of audiences
		Use of cyberspace to send sports messages
		Use of cyberspace to encourage and motivate people towards sports

“The science of physical education stems from cyberspace. I myself believe that in the recent years that cyberspace has become more available to people, there has been a good tendency towards its use; although this space must be kept in a good state by sports specialists” (MSc in PE, 39 years old).

3.3. Communication Networks

Participants stated the creation of social hubs and networks in cyberspace could lead to a feeling of belonging, solidarity, information exchange and motivation.

“One of the things which can encourage students towards sports is creation of groups and sports hubs in cyberspace. This plays an important role in students who are interested in a certain sport. These hubs can also be linked together across the country and become aware of each other's activity and create motivation and exchange information” (manager and lecturer, 35 years old).

“people's minds can be directed via cyberspace, and if sports specialists are behind this, the relationship between cyberspace and sports will become meaningful. Cyberspace can be used in order to create sports culture” (former member of Iran's national volleyball team and PhD student in PE, 51 years old).

3.4. Culture Creation

Many participants emphasized on correct use of cyberspace in order to form the general culture.

“It is not possible to prevent the entrance of technology into life, because it is available to everyone and has a lot of benefits. What we must do is create the culture for proper use” (sports manager and lecturer, 38 years old).

3.5. Motivation and Interest

Some of the participants mentioned the possibility of creating the sense of competition and motivation towards sport by using cyberspace. They also believed that it can play a big role in creating interest and encouraging people of all age groups towards sports.

“By providing proper sports resources, cyberspace can play a good role in expansion of sports and creating interest among students, staff and lecturers; but the usage pattern of these three groups is very different. Students mainly use cyberspace in their spare time, while staff and lecturers use it for applications, office work and international affairs” (sports specialist, 34 years old).

4. Discussion

This study was performed to identify the most effective aspects of cyberspace for promoting sports. The results showed that cyberspace can have these effects through various aspects such as providing information, education, communication networks, culture creation, motivation and interest.

One of the important aspects of cyberspace in promoting sport is providing information. In fact, this is one of the main features of the Internet which provides information without any limitation in time and location. The ability to access information easily and quickly is one of the things which people benefit from these days in the so called worldwide information society (19-22).

Therefore, considering the current study, the information society created by cyberspace today helps to promote sport. The results of the current study show that providing information in the fields of sport and physical education facilitates sport related communication and advertisement in various ways, which can in turn positively affect the society's health. Knowledge about diseases related to poor mobility is another aspect in this regard.

Another aspect in which cyberspace influences sports promotion is education. The use of e-learning can help in the learning of the basics, concepts, and theories of physical education (23, 24). On the other hand, using simulated education through new technology can help with practical aspects of learning sports, which can reduce injuries (25). Therefore, in sports promotion using cyberspace and new education technology such as teleconferencing, video conferencing and social networking; it is possible to communicate with sports experts in any part of the world and discuss and learn.

Another one of the capacities of cyberspace is the social networks, which provide a communication network with which Internet users strengthen their ability to communicate (26). This is of a special importance in academic users which have the most Internet usage (27). The creation of communication centers at networks in cyberspace can lead to a sense of belonging, unity, provision of correct information, and information exchange in sport (28). Therefore, using this potential has an important role in promotion of sports culture.

One of the main uses of the Internet is having social relationships with others. One must keep in mind that cyberspace, as one of the components of mass media, plays an important role in today's societies. Since the academic society has a special use of cyberspace in order to achieve their academic goals, one can consider cyberspace as an important tool for promotion of university sports and creation of new sports structures.

Concerning sports promotion among various groups of the university including staff, students and lecturers, sports centers pertaining to the interests of individuals can be set up in social media or university and provide incentives and positive points for using them.

In addition, each organization and association can use the capacities of cyberspace to create their own sports related groups run by volunteers, which themselves can become leaders of participation in these centers, which all in turn lead to the promotion of sports.

Another one of the potentials of cyberspace in sports promotion was found to be culture improvement. Use of Internet has changed many beliefs and trends. This is especially true for younger people in which it has created newer means of social interaction; because the revolution in communication and information tools has changed the way culture and trends are changed and spread in the world (29, 30).

On the other hand, ICT combines the tools needed for culture change with information content and communication tools, which has great potential for changing people's culture and information usage patterns (31).

Since most people show an affinity for using cyberspace, one can use this space for advertising and encouraging sports. Being slow and gradual is in the nature of cultural change and it should be used in an intelligent manner to promote sport.

The way the audience interacts, the type of communication, ethics-mindedness, introducing models, respect, and many other similar concepts should be taken into consideration when promoting sport as a positive cultural aspect.

Motivation and interest were another aspect seen as influential in the promotion of sport. Presence in cyberspace creates a sense of happiness and fun in the users (32-34). Some of our interviewees stated that stimulating the sense of competition and creating motivation towards sports is possible through cyberspace. They also believed that cyberspace plays an important role in encouragement and creation of interest towards sports in all age groups.

4.1. Conclusion

All in all, sports experts found cyberspace to be influential in sports promotion in several aspects, including education and employment of the latest technologies, creation of interest and motivation in order to draw the audience towards sports, creation of communication networks and sports centers and hubs, providing information, advertising and finally spreading the culture of sports across the society.

References

1. Ghaedi A, Ghafouri F, Kargar G. [An assessment of the role of championship sports on social development indicators]. *Practic Res Sports Manag.* 2016;**5**(1):35-47. Persian.
2. Moinfard M. *The state of the sports tourism industry in Iran and some strategies to expand it [Dissertation]*. Iran: Kharazmi University; 2008. Persian.
3. Buch T. *Resident perceptions of event impacts: Taupo and Ironman New Zealand*. Auckland University of Technology; 2007.
4. Saminia M, Peymanizad H, Javadipour M. Public exercise in Iran and providing development strategies based on the swot model [Public exercise in Iran and providing development strategies based on the swot model]. *Sport manag strat ass stud.* 2014;**20**:221-37. Persian.
5. Mozaffari SA, Poursoltani Zarandi H. *"Fundamentals and philosophy of physical education"*. Tehran: Bamdad Publications; 2006. Persian.
6. Zahedi N. *Comparison and prioritization of solutions to expansion of public sports from the perspective of managers, and experts [Dissertation]*. University of North; 2011. Persian.
7. Irajpour A, Mojarrad N, Dabbagh Rezaieh F. [Assessment of the role of Mass media in the spread of the culture of public exercise and professional sport in Iran]. *Biannu pub manag sports ex.* 2016;**5**(2):36-52. Persian.
8. Ghasemi H. *The role of Mass Media in Development of Sports in the Country [Dissertation]*. Islamic Azad University Science and Research Unit; 2007. Persian.
9. [No Author Listed]. *The strategic plan for development of the country's sports and physical education*. Iran; 2004.
10. Razeghi N, Alizadeh M, Mohammadi Sangcheshme S. [Sociologic assessment of the views of the youth on marriage in cyberspace]. *J practic sociol.* 2017;**28**(1):67-86. Persian.
11. Nami M, Hosseini SA, Karimi A. [Evaluation and analysis of effect of cyberspace on physical reality and identification of the relationship between sense of security and trust of users toward cyberspace and the amount of internet usage]. *Seas pub geo country.* 2017;**53**(14):53-69. Persian.
12. Ebrahimpour Komle S, Khazaii K. Newfound damage, cyber networks targeting the Iranian family. *First National Congress on cyberspace and new Social Damages*. Ministry of work and social welfare; 2013. Persian.
13. Bell D. *An Introduction to Cybercultures*. 1 ed. London: Routledge; 2001.
14. Dehghan A. Internet Gambling. *Seas Pub cultural stud comm.* 2003;**1**(2-3):45-72. Persian.
15. Yoon S. *An Examination of Twitter's Role in the Formation of Collegiate Sport Fans' Allegiance Using the Revised Psychological Continuum Model (PCM) [Dissertation]*. ProQuest Dissertations Publishing: Clemson University; 2013.
16. [No Author Listed]. *The fifth phase of the National Program of Iran's Development*. Iran; 2011-2015.
17. Delavar A. *Methods for research in psychology and behavioral science*. 1 ed. Payame Noor University Publications; 1998. Persian.
18. Steinar K. The qualitative research interview: A phenomenological and a hermeneutical mode of understanding. *J Phenomenol Psychol.* 1983;**14**(2):171-96.
19. Hurd J. Information technology: catalyst for change in scientific communication. *Sci Technol Libr.* 2004;**25**(1-2):5-22. doi: [10.1300/J122v25n01_02](https://doi.org/10.1300/J122v25n01_02).
20. Janelle DG, Hodge DC. Information, Place, Cyberspace, and Accessibility. In: Janelle DG, Hodge DC, editors. *Information, Place, and Cyberspace. Advances in Spatial Science*. Berlin: Springer, Berlin, Heidelberg; 2000. p. 3-11. doi: [10.1007/978-3-662-04027-0_1](https://doi.org/10.1007/978-3-662-04027-0_1).
21. Sauter T, Lobashov M. How to Access Factory Floor Information Using Internet Technologies and Gateways. *IEEE T Ind Inform.* 2011;**7**(4):699-712. doi: [10.1109/tii.2011.2166788](https://doi.org/10.1109/tii.2011.2166788).
22. Skenderija S. The media paradigm for information science. *Annual Conference of CAIS.* 2013.
23. Isidori E, Frias JL, Echazarreta RR. Teaching Sport Philosophy Online: A Case Study in Italy. *Procedia Soc Behav Sci.* 2015;**186**:932-8. doi: [10.1016/j.sbspro.2015.04.025](https://doi.org/10.1016/j.sbspro.2015.04.025).
24. Nasri N, Iskandar YH, Gilbert L, Wills GB, Adnan WA, Zakaria N, et al. The Initial Design of Learning Outcomes in the Sport Training Application. *International Colloquium on Sports Science, Exercise, Engineering and Technology 2014 (ICoSEET 2014)*. Singapore. Springer; 2014. p. 105-12.
25. Huang CH, Chiu CF, Chin SL, Hsin LH, Yu YP. A sports e-learning platform: Teaching and learning by using multimedia contents. *Ubi-media Computing (U-Media), 2010 3rd IEEE International Conference on*. Jinhua, China. IEEE; 2010. p. 222-6.
26. Fenton N. The Internet and Social Networking. In: Curran JP, Fenton N, Freedman DJ, editors. *Misunderstanding the Internet*. Abingdon and New York: Routledge; 2012. p. 123-48.
27. Okazaki S, Andreu L, Caraganis H. How to engage students in your MBA program? University marketing via social networking sites. *ICERI2011 Proceedings. IATED; 2011.* p. 7193-8.
28. Sakarkar G, Deshpande SP, Thakare VM. An online social networking architecture using context data for effective e-learning systems. *The 2nd Int. Conf. on Emerging Research in Computing, Information, Communication and Applications.* 2014. p. 33-9.
29. Kappas A, Kramer NC. *Face-to-face communication over the Internet: emotions in a web of culture, language, and technology*. Cambridge: Cambridge University Press; 2011. doi: [10.1017/cbo9780511977589](https://doi.org/10.1017/cbo9780511977589).
30. Zittrain JL, Nooney L, Portwood-Stacer L. Reflections on Internet Culture. *J Vis Culture.* 2014;**13**(3):388-94. doi: [10.1177/1470412914544540](https://doi.org/10.1177/1470412914544540).
31. Good KD. Internet, society and culture: Communicative practices before and after the. *new media soc.* 2014;**16**(3):536-7.
32. Lee S, Choi WY, Shin HB, Choi HJ. A Development of Motivation Scale of Sport Website Users: A Perspective of Motivation Factors on Attitude and Behavioral Intention. *J Sport Leisure Stud.* 2013;**52**:119-34.
33. Wilhelmsen M, Lillevoll K, Risor MB, Hoifodt R, Johansen ML, Waterloo K, et al. Motivation to persist with internet-based cognitive behavioural treatment using blended care: a qualitative study. *BMC Psychiatry.* 2013;**13**(1). doi: [10.1186/1471-244x-13-296](https://doi.org/10.1186/1471-244x-13-296).
34. Xiaodong L, Lijuan C, Fei L. On the relationship between internet communication motivation and internet behavior feature of college students. *J Henan Inst Sci Technol.* 2012;**2**(19).