Use of Social Network Models for Employment Opportunities and Knowledge Sharing in Iran

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Abstract— Recent trends in social network advances and its approach to social collaboration have had a great deal of influence on organizational and inter organizational information systems. Many studies have tried to utilize the emerging technology to build a sustainable business competency in organization. The aim of this study is to introduce an application of social network models for knowledge sharing and discuss potential benefits and limitations of this approach. So, after defining knowledge sharing concept and describing its methods and limitations we present a brief history of information sharing on the web. Also, related works in the field of social knowledge sharing networks in Iran is being reviewed. Finally, a web based social network model has been presented based on comparative analysis of some existing social network websites. The presented model appears to make a vital facilitation for knowledge sharing among its users.

Keywords - Knowledge sharing, social networks, website

I. INTRODUCTION

The new information and communication technologies have entered to our personal and social life. The increasing specialization of production activities with the mass of knowledge, has withdrawn the capability and flexibility of managers and professionals to stay updated. One of the most attractive features of social networks is providing services that enable people to communicate with their audience and establish a dynamic interaction to be aware of their opinions about a subject. In these virtual structures, each person can have a share in the production and delivery of information and also can use of the others' information and knowledge. The structure is similar to peer to peer network in which a computer can use of the resources available on the other computers and the resources on its system can be use by the other computers at the same time. The structure is considered here, has stations (human) in which each of them will have a share in the information production and information presentation and use of information provided by the others.

Production and dissemination of information in the world is rapidly developing. Obviously in such a situation, even reading a small fraction of them is not possible and we require the use of methods and mechanisms to filter and find desired information without losing valuable time. Information & Communications Technology (ICT), by creating a common access to knowledge through virtual structures at any time and any place has created several ways to cooperate and interact with people around the world and to use of new systems.[1] A knowledge sharing portal is one of these structures, a place that allows professionals in each field to gather and take advantage of the experience, knowledge, information and etc. creating these types of interactions without social networks is very difficult and even some times impossible. One of the most important goals of a social network for knowledge sharing will be gathering information, targeted information, availability and providing communication and collaboration among all users. Knowledge sharing can be defined as the use of organizations' resources and users to search and collect all the existing sciences, but increasing the information and use of them without proper tools would be a nightmare that will affect users. Therefore, creating social networks for knowledge sharing that provides proper classification of specialized information, skills and knowledge, facilitate knowledge sharing process and also provide a common interface and access point to all data, can be considered a necessity.

Now, among available social networks in Iran, some of the sites try to collect experts and classify the specialties and use of them for different purposes such as employment. Also specialized forums for sharing knowledge are available; but having these two, in one place definitely will be more effective.

In this paper a knowledge sharing portal is proposed that tries to collect experts in different groups and classifies them in such a way that professionals in each field in addition to know each other, are allowed to share their information,

knowledge and experiences. Development of knowledge sharing and building a knowledge infrastructure is one of the other objectives. Also it has considered that, it is essential to create an environment that people can interact and communicate effectively. The rest of this paper is organized as follows. In the next section, a History of sharing knowledge in the Web is given. In section III some of related works are reviewed. The proposed scheme is described in Section IV. Benefits of proposed website are presented in Section V. In Section VI, some features of existing websites are compared and it has been explained that what is the advantage of proposed website over them .Finally, some conclusion is presented in Section VII.

II. HISTORY OF SHARING KNOWLEDGE IN THE WEB

Sharing knowledge is one of the most important achievements of information and communication technology. Different ways such as participating in conferences, scientific debates, books, newspapers and other items can be used for sharing knowledge. Each of these methods has its own advantages and limitations. Time and place limitation, degree of interaction with the audience are the major challenges associated with each of the above methods. Dissemination of information and personal knowledge using the Web (such as articles) and blogs, forums, etc, helps to Overcome the limitations of time and place and also gives the right to the audiences to choose and provide a suitable infrastructure for duplex information interactions.[2]

A. Blog

Blog is a web page (like a personal newspaper) with general availability to all users. Creating weblogs can be considered as the first attempts for sharing knowledge on the web. Dissemination of knowledge and personal experiences in the form of blogs is a very good and advanced option for researches and in the proper time. Stable development in any country requires valuing the proper and timely research within the information technology field. Receiving immediate feedback on the ideas presented, facilitating communication between researchers and classification of the contents in different fields are some of good features of blogs in the sharing of knowledge. [3]

B. Forum

Forum in the Internet and computers is a General Assembly that everyone from anywhere in the world can register on that and consulate with other members in any field, take advantage of their knowledge or make his/her knowledge available to other members.[4] Forums are sites with software such as PHP Nuke, PHPBB, vBulletin and etc. Usually in the forum, site administrator (Admin), creates some groups in which users and Members share their information and experiences in the field of these groups' subjects.

C. Portal

The term portal means the entry and access point that refers to sites that allow users to access content or search by subject category and view them, including a diverse collection of public Internet services, such as electronic mail, interview rooms and so on. It provides tool for fast direct access to the portal users and researchers in the scientific research centers and universities. The portal is a network service that gathers the information from distributed resources using technologies such as search and offers them to user.

III. REVIEW OF RELATED WORKS

A. Reference of Iran's Experts

Due to the urgent need to an online database of all national experts and comprehensive news in different fields, "Reference of Iran's Experts" Website with the address www.irexpert.ir" in June 2006 has been established by "Farayand Sazan Tose'e" company. This website has been welcomed by a large number of Iranian Professionals so that now more than 150,000 professionals from inside and outside of Iran are registered in this website. Innovative features like: Sending all newspapers' Employment news, daily via email, sending news, conferences and scholarships call daily via email, having a Personal profile page along with Control Panel management, providing membership in Iran's specialists database with the advanced search, using a very useful question and answer service in all fields, recording ads in website, the use of digital library of the website and good advertising methods, beside, the need for such sites, have transformed this website to one of the main bases of experts' community in the country.

B. Social Network of Iranian Professionals

This website with the address www.u24.ir, has brought experts from different fields together and professional profiles for its members, creating professional communication, advertising, announcement services for professional information, news, and discussion forums has provided.

C. Experts' Community

"No Avaran Fanavari Etela'at" Company with the abbreviated name "Nofa" in 2005 was established in the field of Information Technology with the address http://www.nofa.ir/aboutus.aspx, Nofa Company; in this site offers services such as database of experts, searching people seeking work in different fields, Forums and chat with members. All of these websites provide an environment for sharing knowledge but unfortunately they have not provided an environment that has aggregated all the features are needed for having a pure knowledge sharing environment in different fields and by different experts.

IV.   PROPOSED SCHEME

Unfortunately an important feature that does not exist in any of these websites is ability for users to share their knowledge in an organized manner. In this paper a website is proposed, in which that the ability of gathering Experts in different and classified groups is provided in such manner that specialists in any field in addition to know each other and each others' skills, have possibility to share their knowledge and new information and can benefit of each other's experiences.

Developing the knowledge sharing behavior and building a knowledge infrastructure is one of the other objectives. Construction of knowledge by creating an environment, where all professionals are able to work well together also is considered and it is essential for this website to create an environment where people can interact and communicate with one another.

A. Services Of Proposed Website

Some of services that this social network offers to users are as follows:

- Organizing scattered information in different areas of expertise
- Ability to manage content (Advanced Content Management)
- Exchange of information between experts in different fields
- Easy and rapid access to information through the standard categories
- Saving time and costs of Members
- Access / search for information and research resources and expertise through the web
- Access / search the databases of experts through the web
- Communication and collaboration between users through Forums, E-Mail and etc.The map of the proposed website is shown in Fig.1.
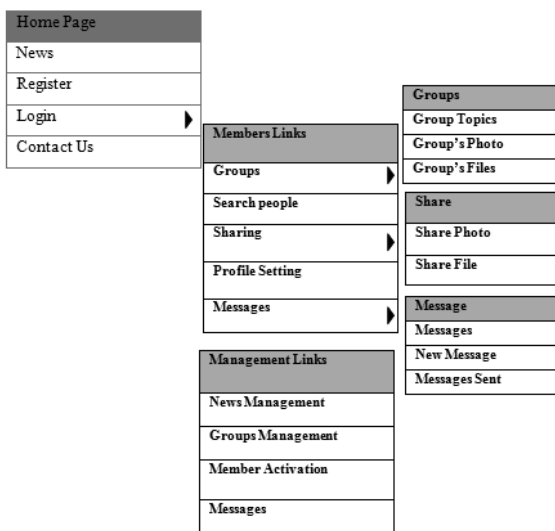
B. Features of the proposed website

Features of the proposed website are as follows:

- Ability to attach educational qualifications and certificates by Uploading Photo in Gallery
- Collecting experts in various fields
- Classification of individuals in order to the grouping in different specialties
- Possibility to search people, expertise, articles, Useful links in a specific topic
- Ability to create a professional profile for each user
- Ability of each user to access to his/her personal page
- Ability to send and receive private messages and group messages
- Ability to share knowledge, skills and expertise of each person by Uploading file
- Creating forums for information exchange among members and experts to solve problems or improve skills
- Ability to communicate with various experts by making friendship with them

C. Technical Site Characteristics

- Server side Scripting: Visual Studio 2005 | C #
- Client-side scripting: JavaScript
- Database: Microsoft SQL Server 2005
- Implementation technologies: Microsoft. Net Framework 2
- Persian language Standard: Utf-8
- Other technologies: Ajax 1.0
- Standards: CSS
- Design Templates: Photoshop CS2

The ERP-Graph, Members' ERP and Groups' ERP are illustrated in fig.2, fig.3 and fig.4 respectively.
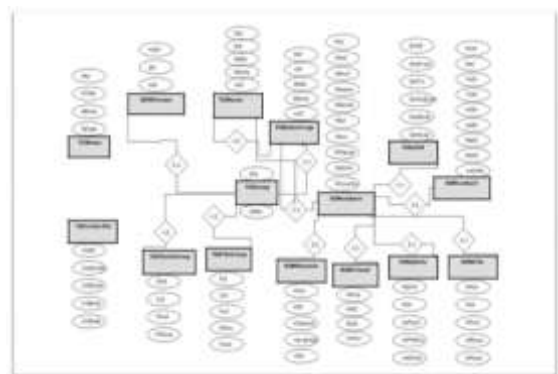

Figure2. ERP-Graph of proposed website

V.   BENEFITS OF THE PROPOSED WEBSITE

- This website is intended to collect experts from different fields together in one place and create a perfect database of experts' information.

Figure1. Site map of proposed website

- This website is intended to promote a culture of knowledge sharing in the country by providing communication between experts and professors in various fields.
- Classification and grouping of users with expertise in various fields can accelerate access to specialists for specific goals.
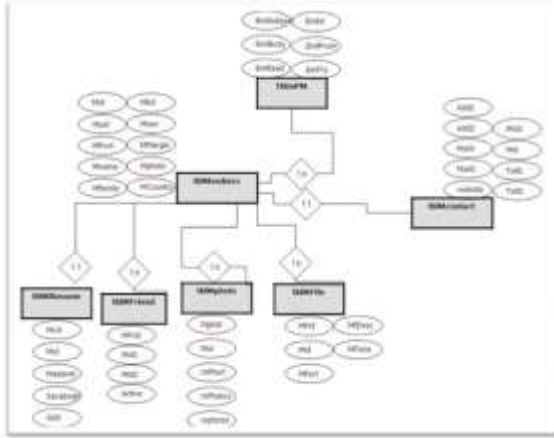
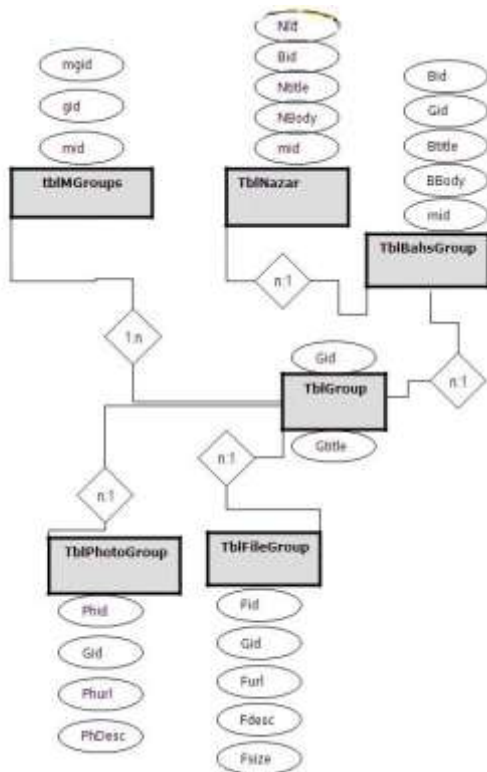

Figure3. ERP-member of proposed website

Figure4. ERP-group of proposed website

- By enabling users to search for people, expertise, articles, Useful links in a topic, the process of accessing to desired information in a particular field will be simplified.

- Allowing the creation of professional profiles for each user can help people in employment matters, and also allow administrators to access to people with specific skills easier.

- Creating forums for exchanging information among members and experts can help people in solving problems or improving skills.
- Attaching educational documents and professional certificates can be a step toward making this community more real.
- Any person with access to a personal profile can send and receive messages to an individual or group, and the possibility of making friendship helps users to develop their professional communication.
- More publication of information can be provided to people using the possibility of Uploading files.

VI. ADVANTAGES COMPARISON

There are some common features in almost all of these existing websites such as personal profile for each user, allowing users to create resume, forums, specialized groups and chat. But as we mentioned earlier, the main objective of this website is to provide an environment for users and professionals to share their knowledge as much as possible and in simplified manner. In the existing websites people are able to communicate with one another in forums and groups and in this way can share their information, but an important feature that is not exist in any of these websites is ability for users to share their knowledge in an organized manner. For example, suppose that one user is a professional user in let us say computer networks, then she can share her practical experiences same as her weblog if she has the ability to upload file and photo in her personal profile. Consequently any of her friend or any other person who has permission to access to her files can use of those information. In this example the profile of this user can be considered as a reference for information and knowledge in computer network field. This can consider even as an e-learning feature in big scale. In the proposed scheme users are suggested to upload their educational and professional qualifications in their photo albums and this feature can be used by the managers and owners of the organizations to check the qualifications of the peoples even before calling them for interview. Unfortunately no one of these existing websites offers this feature to their users and this is provided in the proposed website.

VII. CONCLUSION

In this paper the importance of knowledge sharing websites based on social networks models is described. The existing websites in Iran that provide some services that helps people to share their knowledge are compared and the shortage of some services in these websites are also

discussed. A website that has a feature for uploading files by users in their own profiles is proposed that helps the knowledge to be shared in organized manner and also simplifies the use of each user's knowledge and experiences.

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