

Social Computing

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Abstract

Social computing refers to the use of computational devices to facilitate social interactions among users. The idea is to use websites to enable users to interact. There is a widespread adoption of social computing technologies in government, business, and organizations. This paper provides a brief introduction to social computing.

Keywords: social computing, social networks, social media, social software

I. INTRODUCTION

Social computing (SoC) is basically the use of computer for social purposes. It is based on the fact that humans are social creatures. We are sensitive to the behavior of those around us. We talk with our family, friends, and co-workers. Social interactions contribute meaning, fulfillment, and richness to our life.

In social computing, the Internet enables users to interact through several media such as blogs, Wikis, social bookmarking, instant messaging, social communities, and online business networks [1]. People are involved in social computing and are interacting in a broad spectrum of social and commercial activities.

In less than three decades, three significant paradigms of social computing have emerged. These are groupware, social software, and mobile social software. Social computing can therefore be treated as a general umbrella term that includes several paradigms [2].

Social computing is closely related to economic computing. They share common

underlying technologies. An economic system may be regarded as part of a social system and social computing technologies can facilitate the development of economic computing [3].

II. SOCIAL NETWORKS

Social network is basically a social structure made up of social actors. It is used to create and maintain social connections among individuals. It models connections among individuals and facilitates information exchange between them. The availability of Web 2.0 technology (which supports effective two-way communication), advances in broadband connectivity, the rapid adoption of mobile phones, and the rise of cloud computing led to the development of social networks. Social networks imply interconnectedness and interdependence.

III. SoC PLATFORMS

Social computing platforms are different from traditional computing and content sharing. Some selected social computing platforms are [4]:

- *YouTube*: This has evolved into a pop-culture. It is one of the best known social software platforms. It allows one to enjoy videos or music and share it with others.
- *Facebook*: This is an online social networking application. It allows one to share photos and videos and also send messages.
- *Twitter*: This provides an online news and social networking service. It allows users to share and exchange messages in real time. Users send tweets to share their interests.

- *Peer to peer (P2P)*: These networks represent the highest social activity among all the social software platforms. P2P file sharing enables users to access files such as books, music, and games using P2P networking technology.
- *LinkedIn*: This is a social network for business professionals. It makes it easier to be connected to people and things that matter.
- *MySpace*: This is an international site that offers a forum videos and weblog space. It allows users to build, launch, and share their Web presence.
- *Flickr*: This is a popular, easy-to-use photo sharing service. It allows you to upload, access, and share your photos from any device, at anywhere.
- *Skype*: This is peer-to-peer, Internet-based voice and video communication service. It allows you to call your family and friends for free.
- *Blogs*: These are the most visible of the social computing initiatives. They provide commentary on a particular subject, ranging from politics to sports.
- *Weblogs*: These are websites where user or group of users publishes items for others to read. Weblog hosting sites include Myspace and Xanga [5].
- *Wiki*: Users can consume information and also participate in improving it. A wiki is run using wiki software. There are many wikis such as online Encyclopaedia, Wikibooks, Wikihow, and Wktionary.
- *Wikipedia*: This is a free online encyclopedia. It has grown exponentially. It has been observed that there is 500 times more traffic on Wikipedia than on Britannica online [6].

IV. APPLICATIONS

Being a dynamic and evolving field, the use of social computing is growing rapidly. Social

computing is becoming indispensable in the life of people today. It has made impact in media industries, education, healthcare, personal identity, and government services. Social computing applications are web-based applications designed to support collaboration and communication. They remain more of an art than science.

Technologies from social computing are inexpensive. They have found wide applications. They have four major application areas [7]: (1) Web 2.0 services and tools (such as social networks, RSS – Really Simple Syndication, blogs, and wikis), (2) entertainment software which builds intelligent entities (programs, agents, and social robots), (3) business and public sector (such as ecommerce, healthcare, and digital government), (4) forecasting (for planning, evaluation, and training). Social computing applications are adopted in a wide variety of settings. Recently, social computing advances have supported near-real-time applications such as videoconferencing [8].

V. CHALLENGES

As social computing technologies become pervasive, many challenges arise. The challenges include information overload, decision making, privacy, security, trust, and risk. For example, people who use Twitter portal receive a large number of tweets that are irrelevant to their interests. People are faced with selecting products and they seek advice from trusted sources. As users create vast amounts of contents, it is difficult to know whom to trust and what information to trust [9]. User privacy and security relate to system features and real threats. Although social computing can create socioeconomic activities which could enhance the quality of life of older citizens, it could make the problem of digital divide acute [10].

Social networks by nature may maintain a large amount of personal information, which leads to people being concerned about privacy on social networks. Social networks are also vulnerable to information security and social engineering [11].

Understanding and exploiting statistical features of mobile data from a social network perspective also poses new challenges [12].

VI. CONCLUSION

Social computing is basically using the Internet for social purposes such as networking, sharing interests and personal insights. It goes beyond just social networking and entertainment; it is being adopted by industries and governments. It is an important social phenomenon. It represents the next step in Web evolution. Current research in social computing involves multiple disciplines such as information systems, politics, business, and technology.

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