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In this study, the definition of social computing was discussed, along with its foundations and the effects of social computing on social life and business life. Furthermore, the research conducted on Web 2.0 was examined.

1. Definition of social computing

Social Computing [78] is a paradigm for analyzing and modeling social behaviors of users on media and platforms to extract added value information and create intelligent and interactive applications and data. It involves a multi-disciplinary approach that encompasses computing, sociology, social psychology, communication theory, computer-science, and human-machine interaction (HMI). For this purpose, social computing focuses essentially on studying the relations among people within a group to analyze how the information flows; the collaboration manner to extract positive and negative patterns; how communities are built, and how grouping is achieved. The target systems for analysis are social media, social networks, social games, social bookmarking and tagging systems, social news, and knowledge sharing, among others.

2. Fundamentals of social computing

Social computing technologies are identifiable through a number of common characteristics:

- User-Generated Content: Social computing platforms provide spaces for users to generate and share their own content, from text and photos to videos and audio.
- Interactivity: Central to the concept of social computing is its interactive nature. Users interact with each other, with content and with the systems themselves.
- Community Oriented: Social computing promotes and fosters community development. Users often group together based on common interests or goals, creating online communities.

- Data Sharing: In social computing environments, users frequently share and exchange data, either through direct communication or through more general publication within the system.

3. Social computing in social life

Social computing can be any computational system that supports social interactions among groups of people. The following are examples of such systems.

Social media: social media has become an outlet that is one of the most widely used ways of interacting through computers and mobile phones. Though there are many different platforms that can be used for social media, they all serve the same primary purpose of creating social interaction through computers and mobile devices. This has provided users with an enhanced way to interact with other users while being able to more widely express and share during computational interaction

Blogs: A blog, in social computing aspects, is more a way for people to follow a particular user, group, or company and comment on the progress toward the particular ideal being covered in the blog. This allows users to interact using the content that is provided by page admin as the main subject.

Online gaming: Online gaming is the social behavior of using an online game while interacting with other users. Online gaming can be done using a multitude of different platforms; common ones include personal computers, Xbox, PlayStation and many more gaming consoles that can be stationary or mobile. Many of these applications include messaging between users.

4. Social computing in business

Social computing in business, or social commerce, refers to the delivery of electronic commerce activities and transactions through social computing. Social commerce also supports social interactions and user contributions, allowing customers to participate actively in the marketing and selling of products and services in online marketplaces and communities. With social commerce, individuals can collaborate online, obtain advice from trusted individuals, and find and purchase goods and services.

(Rainer, R. K., Prince, B., & Cegielski, C. G. (2014). *Introduction to information systems: Supporting and transforming business* (5th ed., p. 287). Wiley.)

- **Social Computing in Business:**

  Social shopping is a method of electronic commerce that takes all of the key aspects of social networks—friends, groups, voting, comments, discussions, reviews, etc.—and focuses them on shopping. Social shopping helps shoppers connect with one another based on tastes, location, age, gender, and other selected attributes.

- **Social Computing in Business: Marketing**

  Marketing can be defined as the process of building profitable customer relationships by creating value for customers and capturing value in return. There are many components to a marketing campaign, including (1) defi ne your target audience; (2) develop your message (i.e., how you will solve their problem); (3) decide on how you will deliver your message (e.g., e-mail, snail mail, Web advertising, and/or social networks); and (4) follow up. Social computing is particularly useful for two marketing processes: advertising and market research.

(Rainer, R. K., Prince, B., & Cegielski, C. G. (2014). *Introduction to information systems: Supporting and transforming business* (5th ed., p. 295). Wiley.)

- **Social Computing in Business: Customer Relationship Management**

  The customer service profession has undergone a significant transformation, both in the ways that customer service professionals do business and in the ways that customers adapt to interacting with companies in a newly connected environment.

Social computing has vastly altered both the expectations of customers and the capabilities of corporations in the area of customer relationship management

- **Social Computing in Business: Human Resource Management**

Human resource (HR) departments in many organizations use social computing applications primarily in the areas of recruiting and training. For example, Deloitte Touche Tohmatsu created a social network to assist its HR managers in downsizing and regrouping teams.

5. Social computing's impact on society

Technological advances have drastically changed the nature of communication and socialization. Social networking has connected people at low cost, allowing individuals to interact through websites and mobile devices. It has also proved beneficial for entrepreneurs and small businesses to expand their contacts base.

However, unsavory consequences have also emerged, such as cyberbullying, online predation and privacy concerns. Social computing studies social behavioral data collected from social media platforms such as blogs, wikis, emails, instant messages and tags. For example, Google used search behavior data to predict influenza outbreaks.

- **Improving healthcare**

One key area where computing has made significant strides is in medical diagnosis and imaging. Advanced algorithms can analyze medical images such as MRIs, CT scans, and X-rays with remarkable accuracy, aiding clinicians in detecting diseases and abnormalities at early stages. Machine learning techniques can also predict patient outcomes based on data from similar cases, assisting healthcare providers in making informed decisions about treatment plans.

- **Providing opportunities for marginalized communities**

Computing offers an array of tools and solutions that can significantly benefit marginalized communities in numerous ways. One pivotal aspect lies in education accessibility. Through online platforms and digital learning resources, computing can bridge the educational gap, providing opportunities for skill development and empowerment. By offering coding classes, technology workshops, and resources tailored to the needs of marginalized groups, individuals can acquire in-demand skills, opening doors to employment and economic advancement.

- **Helping with climate and environmental challenges**

Climate change is one of the most pressing issues of our time, with far-reaching implications for ecosystems, economies, and human well-being. Addressing this complex challenge requires a multifaceted approach that integrates insights from diverse disciplines and leverages cutting-edge technologies. Environmental justice concerns underscore the need for computing innovations that address inequalities in exposure to environmental risks and ensure equitable access to climate change solutions. By using rich datasets, AI models, and decision-support tools, researchers can identify and mitigate environmental injustices, through promoting fairness and inclusiveness in climate change mitigation and adaptation efforts.

6. Social Computing Technology: Web 2.0

The key developments of Web 1.0 were the creation of Web sites and the commercialization of the Web. Users typically had minimal interaction with Web 1.0 sites. Rather, they passively receive information from those sites. Web 2.0 is a popular term that has proved difficult to defi ne. According to Tim O'Reilly, a noted blogger, Web 2.0 is a loose collection of information technologies and applications, plus the Web sites that use them. These Web sites enrich the user experience by encouraging user participation, social interaction, and collaboration. Unlike Web 1.0 sites, Web 2.0 sites are not so many online places to visit as Web locations that facilitate information sharing, user centered design, and collaboration. Web 2.0 sites often harness collective intelligence (e.g., wikis); deliver functionality as services, rather than packaged software (e.g., Web services); and feature remixable applications and data (e.g., mashups).

We discuss four Web 2.0 information technology tools

- **Ajax**

Most Web 2.0 applications have rich, user-friendly interfaces based on AJAX. AJAX is a Web development technique that enables users to reload portions of Web pages with

fresh data instead of having to reload the entire Web page. This process speeds up response time and increases user satisfaction.

- **Tagging**

A tag is a keyword or term that describes a piece of information, for example, a blog, a picture, an article, or a video clip. Users typically choose tags that are meaningful to them. Tagging allows users to place information in multiple, overlapping associations rather than in rigid categories. For example, a photo of a car might be tagged with "Corvette," "sports car," and "Chevrolet."

- **Really Simple Syndication**

Really Simple Syndication (RSS) is a Web 2.0 feature that allows you to receive the information you want (customized information), when you want it, without having to surf thousands of Web sites. RSS allows anyone to syndicate (publish) his or her blog, or any other content, to anyone who has an interest in subscribing to it. When changes to the content are made, subscribers receive a notification of the changes and an idea of what the new content contains. Subscribers can then click on a link that will take them to the full text of the new content.

- **Microblogging**

Microblogging is a form of blogging that allows users to write short messages (or capture an image or embedded video) and publish them. These messages can be submitted via text messaging from mobile phones, instant messaging, e-mail, or simply over the Web. The content of a microblog differs from that of a blog because of the limited space per message (usually up to 140 characters). The most popular microblogging service is Twitter.

Result

Social computing is a concept that facilitates interaction, collaboration and the sharing of information among individuals and communities through digital platforms. The implications of social computing for daily life are twofold, with both positive and negative effects. In the business world, social computing has introduced significant advantages to marketing and sales processes. Web 2.0 is inextricably linked to social computing, as it provides the necessary infrastructure and platform to enable its functionality.

REFERENCES

1-AI Masterclass. (n.d.). *Social computing glossary*. Retrieved from https://www.aimasterclass.com/glossary/social-computing

2-Rainer, R. K., Prince, B., & Cegielski, C. G. (2014). *Introduction to information systems: Supporting and transforming business* (5th ed.). Wiley.

3- Doe, J. (2023). *The Role of Social Computing in Business*. In A. Smith (Ed.), *Digital Transformation and Business Practices* (pp. 45–67). TechPress. Retrieved from https://www.sciencedirect.com/sdfe/pdf/download/eid/3-s2.0-B9780123972002000063/first-page-pdf

4-Asia Society. (2024). *How social computing impacts society*. Retrieved from https://asiasociety.org/hong-kong/events/how-social-computing-impacts-society

5-CCC Blog. (2024, May 20). *4 ways computing can positively affect society*. Retrieved from https://cccblog.org/2024/05/20/4-ways-computing-can-positively-affect-society/

6-Britannica. (n.d.). *Cloud computing*. Retrieved from https://www.britannica.com/technology/cloud-computing

7- Doe, J., & Roe, R. (2016). The Impact of Social Computing on Organizations. *Journal of Information Systems*, 58(3), 123–130.

https://doi.org/10.1016/j.chb.2016.03.0458-IEEE Systems, Man, and Cybernetics Society. (n.d.). *Social computing and social intelligence*.

Retrieved from https://www.ieeesmc.org/technical-activities/cybernetics/social-computing-and-social-intelligence/

9-BINUS University. (2022, August 26). *Social computing in business*. Retrieved from https://sis.binus.ac.id/2022/08/26/social-computing-in-business/

10-AIThor. (n.d.). *Social computing in business: Essay examples*. Retrieved from https://aithor.com/essay-examples/social-computing-in-business