Social Network Influence to Society Development through the viewpoint of Social presence theory

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Abstract. *Social networks as contemporary network modules are enabling individuals, groups and organizations to extend their communication and organizations towards their goals and aims. Their influence follows the trend of social presence influence. It is also related to social development through scientific works in this area, as well as scientific contribution to network building and its social and economic impact.*
Confirming social network influence to social development, contemporary scientists are connecting various scientific areas and fields, from social sciences and psychology studies, to ICT and tech areas. In order to communicate results, research and papers through network sciences are also influenced by social networks, confirming mutual influence. Social presence theory additionally confirms science need to contribute social development through social influence.
Interdisciplinary and contingency approach is "sine qua non", considering various scientific areas topics.

Keywords
Social network, influence, social development, module, organizations, interdisciplinary, contingency

1 Introduction

In order to present and describe social network influence over society development in ever changing information society, this article opens questions in areas of information society, learning society and social development.

Contemporary science is strongly influenced by growing number of issues related to social development and social networks influence in various way, definition and appearance, so there is strong need to focus on some critical topics.

According to social networks' impact onto social development, and significant number of scientific papers describing this contemporary phenomenon, this article will try to contribute in description and clarification upon following topics:
- Social network growth and development,
- Learning as leading change influence,
- Social development as a result.

Social network is one of the leading contemporary Internet phenomena and particular social product that resulted as new Internet generation product.

Internet itself was an outcome of systematic institutional, personal and group „effort to connect computers and information and therefore people. Since its early days, Madden [31] claimed that the Internet has grown exponentially".

Unlike the days of its beginnings when only narrow groups of scientists used it, people use the Internet today in a variety of different ways, including communication with friends, family, and co-workers.

In addition to "connecting with current friends and family, people also use the Internet to form new relationships" as a result [31], Baym, Zhang, & Lin are describing "Internet as a social medium" [5, 3].

As Internet connects people together, described as "social phenomenon" it can also separate people and Kraut [26], Morahan-Martin & Schumacher [32, 19] described Internet as isolating and impersonal.

Various examples of human behaviour, are showing trends of Internet addiction, in Hiltz and Turoff opinion [22, 1-12], as well as Nie and Ebring [34] have found that the more time that people spend on the Internet, the less time they spend with people in face-to-face social situations.

Van Dijk [61] described the topic that the Internet invites certain types of people to withdraw into the computer, as a part of their specific social zone.

Discussion upon "eternal" question – whether Internet is a social medium, pulled debate in many ways, according to Kraut [26], Nie, Hillygus and Erbring [35].

Watson [65] presented trend that many of high schools in USA, Michigan for example, have begun requiring from high school students to take online courses to graduate.

Croatian academic network is developing in mostly similar conditions for studying, research and connecting to the rest of the global academic network.

Following to EU accession and growing number of scientific network opportunities, Croatian science network have remarkable opportunities for connection and development in various ways.

EU programmes, as well as global political, economic and scientific networks (World Bank, UN), also may ensure significant contribution to scientific growth and development.

Not only the online applications at the college level are continuing to grow, described in Allen and Seaman paper [1], but also, studying all spectrum of social and tech studies.

IT, management, organization and similar studies are opened for online studying, and growing number of Universities have online study programs (Liverpool, UK as great example, also Michigan, Walden, Phoenix, De-Vry and others, as well-known US and Canadian Universities).

In the early 1990s, researchers started studies on the effects of computer-mediated communication (CMC). Walther [63], Walther, Anderson and Park [64], concluded that CMC was inherently antisocial and impersonal. Early CMC researchers turned to social presence theory to make sense of their findings.

This article focus is on growing influence of social networks through social presence and an effort to understand better its relationship to social learning. Additionally, social interaction between science and social networks opens new research and studying opportunities.

Papers on social network, social presence, individuals and organization mutual influence are growing in number, indicating that social networks are one of the key issues in social research, as well as in ICT tech and science development.

Croatian information and organization science puts additional attention to ICT development, as well as social development, opening new space for further research and scientific papers.

2. Social networks

Social network is described by various definitions. Oxford dictionary [49], described it as:

- network of social interactions and personal relationships,
- Internet site dedicated or other application which enables users to communicate with each other by posting information, comments, messages, images, etc..
- websites and applications that enable users to create and share content or to participate in social networking

Gartner IT glossary offered definition of social networking as:
- "The act of establishing online many-to-many human connections for the purposes of sharing information with the network or subsets thereof".

Although one-to-one connections are possible in social network sites, the preponderance of activity engages a broader range of participants in any given network.

3. Social development

Social development [50], by the World Bank is defined as "transformation of institutions and as such, promotes better growth, better projects and better quality of life".

There are various narrow, focused or more descriptive and wide definitions like International Institute of Social Studies one that described social development using following definition:

"Social development is about putting people at the center of development. This means a commitment that development processes need to benefit people, particularly but not only the poor, but also recognition that people, and the way they interact in groups and society, and the norms that facilitates such interaction, shape development processes."

Figure 1 shows trends in Digital Strategies, presented by Gartner recent reports [15].

Figure 1: Gartner reports - Trends in Digital Strategies

Gartner recent reports indicates that by 2015, Digital Strategies, Such as Social and Mobile Marketing, Will Influence at Least 80 Percent of Consumers' Discretionary Spending The online environment continues to expand, and marketing organizations have more opportunities to be effective. By 2014, 6.7 billion devices will be connected to the Internet.

Key factor for ICT and related sectors is their flexibility and their knowledge base.

4 Social influence explained by Social presence theory

When considering a social media influence there is a strong need to consider Simplified Model of Social Media Influence. Influence is based upon two entities - influencer and target.
1. The influencer's influence power depends on:
a. Credibility - specific knowledge in domain expertise
b. Bandwidth - Ability to transmit his expert knowledge through a specific social media channel.

2. Target is influenced by specific factors:
a. Relevance - the right information
b. Timing - the right time
c. Alignment - the right position
d. Confidence - the right person

This model is general and intended to be applicable to any social media channel. It is adaptable and there is enough space for further development if it proves to be insufficient.

Short, Williams, and Christie [48] originally developed the theory of social presence in order to explain the effect telecommunications media can have on communication.

Furthermore, social impact shown in this theory was one of the issues for later works and papers, as well as one of motivation points when considering this paper preparation.

They posited that communication media differ in their degree of social presence and that these differences play an important role in how people interact. They conceptualized social presence primarily as a quality of a communication medium that can determine the way people interact and communicate.

Herring [21] stated that at the beginning researchers have studied CMC mostly in organizational settings; with very little or no research on CMC in educational settings, specifically classroom settings. Much of the significance of CMC depends on its surrounding discourse and in educational setting, specifically online it is very different from that in business settings as Gee explained in his paper [16].

Shea [47] claims that education as a social practice in any formal learning environment must be able to support the process of learning.

During '90s, Berge and Collins [7] criticized online education as they believed that the absence of social cues would interfere with teaching and learning.

Despite Allen and Seaman [1] criticism, online education continues to grow as access to the Internet increases; applications in online education are continuing growth.

Further, as Gunawardena [18], Danchak, Walther, Swan [12], Gunawardena and Zittle [19], and Richardson and Swan [38], as well as other researchers, have begun examining the sociability of online education, researchers began to question the degree to which the attributes of a communication medium in this case the cues filtered out of CMC systems - determine how people socially interact and are perceived as "being there" when communicating online.

As a result, these researchers began questioning and further developing the theory of social presence developed by Short [48].

Swan and Shih, [53], argued that participants in online discussions are able to project their personalities into online discussions and create social presence.

Rourke [40] and Swan [52] have found that online learners are able to present themselves as being "real" as well as "connect" with others when communicating in online learning environments by doing such things as using emoticons, telling stories, and even using humor.

5 Theory developments

Apart from social presence theories and research, growing number of social networks in any social area (business, learning, arts and sciences) is still growing and contributing social network influence.

Social presence is now a central concept in online learning.

Benbunan-Fich, Hiltz and Harasim [6], Vrasidas and Glass work [62] described it further as it has been listed as a key component in theoretical frameworks for learning networks and distance education.

Gunawardena [18], Gunawardena and Zittle [19], Richardson and Swan [38] research work and publications have shown a relationship between social presence and student satisfaction, and Rourke, Anderson, Garrison and Archer, Rovai [41] - described social presence and the development of a community of learners, perceived as learning.

Social presence theory has rich and dynamic history. It has evolved through past three decades, with various influential researches on social presence, and in a way that researchers define, operationalize, and study social presence. According to Research on Social Presence Short et al. [48] were members of the Communications Studies Group (CSG) at the University College in London.

The majority of early research focused on the assumed importance of the visual communication. Short, Christie, and Williams [48] initially found that communication media were strengthened by the addition of a visual channel.

Another competing theory that emerged during the 1980s was the Media Richness Theory. Daft and Lengel [11] developed the theory of Media Richness. They were focused primarily on information processing behaviors in organizations.
More specifically, they were interested in a concept they called information richness (defined as the potential information-carrying capacity of data). If the communication of an item of data, such as a wink, provides substantial new understanding, it would be considered rich.

The last of the three competing models is the Social Information Processing model developed by Walther [64, 529-563], as a response to the previous "deficit" theories – focus of previous researchers was on media effects across various communication media, Walther focused primarily on CMC.

Considering social presence theory, it is not surprising that there is not a clear, agreed upon, definition of social presence.

Presence, as Biocca [8] explained, is a theoretical construct, used in a various disciplines related to communication and online learning most notably virtual reality.

Lombard and Ditton [29] identified six interrelated distinct ways people understand "presence":
(a) presence as social richness,
(b) presence as realism,
(c) presence as transportation,
(d) presence as immersion,
(e) presence as social actor within medium, and (f) presence as medium as social actor.

They even attempted to create their definition of presence. According to Lombard and Ditton [29], presence is "the perceptual illusion of nonmediation" (presence explicated section).

Biocca, Harms, and Burgoon [9, 456] also recognized the different ways researchers across different fields defined presence. They defined social presence as simply the "sense of being with another" whether that other is human or artificial.

For Gunawardena [18, 147-166], social presence is "the degree to which a person is perceived as a 'real person' in mediated communication".

Garrison et al. [13] defined social presence "as the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e., their full personality), through the medium of communication being used".

Social presence theory explanations and researches may be continued in never ending story, various in explanations, not only depending to periods or authors, but also in further development. Social presence as a basis for social influence approved new benchmarks in research and studies.

Conclusion

Considering growing number of social networks, as well as number of Internet sites, growing academic network, locally, regionally and globally social networks influence is various and represent a solid basis for further research. Any future research need to include key points of internet – media role, society role, and influence in variety of ways. Doubts on sociability are still present, but not approved. Considering theory of social presence and variety of definitions of social presence, researchers have to question what we know and do not know about social presence.

One thing is obvious – we are considering area for variety of further research projects.

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