

Analysis of the Relationship between Agenda Setting Theory and Knowledge and Information Science

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Abstract

The knowledge and information science is more or less linked to other sciences due to its interdisciplinary nature. The interactions between different disciplines and taking advantage of each other's knowledge can lead to problem solving and scientific advancements. Due to the relationship between information and communication, knowledge and information science has many common issues with communication science. In the present study, it has been tried to examine some of the issues and activities in the field of knowledge and information science from the perspective of agenda setting theory as one of the most important theories in the field of communication science. The results showed that agenda setting theory is closely related to knowledge and information science in three aspects including corporate reputation of libraries and information centers, users' queries, and set-building in libraries.

Keywords: Communication Science, Knowledge and Information Science, Agenda Setting, Corporate Reputation, Set-Building.

Introduction

In the present era, no science can solve its problems alone. Problem solving and scientific advancements occur through the interaction between different scientific disciplines and taking advantage of their knowledge. Knowledge and information science is also linked to other sciences due to its interdisciplinary nature. In other words, we can see the influence of other disciplines, such as communication science, computer science, etc., on the principles, concepts and researches in the field of knowledge and information science. Knowledge and information science is linked to communication science due to many various relationships between information and communication. Shaqaqi (2003) showed that communication science can be used in knowledge and information science analyses and can help its scientific and scholarly advancements. Therefore, we can use the theories presented in each of these sciences in the other one. However, only two studies have analyzed the relationship between communication theories and topics of knowledge and information science. Ashrafirizi and Kazemipour (2005) investigated applications of communication theories in knowledge and information science and showed that these theories can be applied in all four pillars of

knowledge and information science including set-building, organizing, information dissemination, and management. Atapour (2005) also studied the relationship between communication theories and topics and activities of knowledge and information science. The results obtained from his study showed the application of communication theories in activities and theoretical topics of knowledge and information science.

The present study focused on the agenda setting theory as one of the theories of communication science and attempted to realize the relationship between this theory and different topics of knowledge and information science. In this regard, the history and concept of agenda setting theory have been described. Then, we analyzed the relationships between this theory and different topics of knowledge and information science in three aspects including “library corporate reputation”, “users’ queries”, and “set-building”.

Agenda Setting Theory

Today, mass media and social media have turned into powerful forces. They can transfer a large amount of information within the society very quickly. In the present century, media audiences can easily access the media and receive a great deal of information, comments and photos from all around the world. But the issue that many media audiences do not realize is that based on the agenda setting theory, a great majority of information published in the media is filtered in different ways before being published. For example, a certain news network puts a certain presidential candidate in its news headline. Then this person becomes the day’s top news. In fact, media makes the audience believe that this topic is very important (Adams, Harf & Ford, 2014).

The concept of agenda setting was proposed in 1922 by Walter Lippmann. In his book entitled "Public Opinion", he claimed that images in our minds are different from the reality, and the information provided by the news media play a key role in creating our mental images about the reality. This claim summarizes the agenda setting idea although he did not use this term.

Later, in 1968, McCombs and Shaw (1972) pointed to agenda setting performance of the media in presidential election studies. They found out that there is a close relationship between the topics in the media agenda and public agenda. The media agenda refers to important cases considered by the media which are placed on the news headline. The public agenda refers to the important cases for public. McCombs and Shaw (1972) examined the media agenda through the media attention to each topic based on the position and length of the report. The public agenda were measured based on the percentage of undecided voters. These voters were used because they were the most potential people who may be under the influence of the media agenda setting (Ragas, 2013).

The results of their study showed that editors, newsroom staff and announcers play important roles in forming political realities by selecting and displaying the news. Audiences are not only aware of a particular topic but also realize its importance through the information contained in the news media and the topic’s position. Finally, their study showed that general public realizes the relative importance of the topics through highlighting the topic by the media (Bedard-Petersen, 2009).

Following these works, many studies (e.g., McCombs & Shaw, 1972; Behr & Iyengar,

1985; Funkhauser, 1973) have examined whether the media creates the public agenda or vice versa. The results showed that most of the time media agenda affects the public agenda.

In recent four decades, the agenda setting theory has been one of the most researchable communication theories with more than 400 studies around the world. The mentioned experimental studies evaluated various issues such as political candidates, countries, organizations, etc. (Ragas, 2013).

Definition and Creation of the Agenda Setting Theory

Agenda setting theory refers to the impact of media agenda on the public agenda. In other words, agenda setting theory states that the media agenda, i.e. the topics important to the media, is directly related to the public agenda, i.e. the topics important to the public. Actually, the topic shown by the media becomes an important topic to the public. According to the agenda setting theory, media can induce the public to believe the selected current topics as important ones. McCombs, as one of the founders of the theory, emphasizes that mass media and social media affect people's way of thinking and have a great power in forming public opinion. In addition, he believes that saliences of different topics may change over time due to change in the media and the public attentions (Adams, Harf & Ford, 2014).

There are five steps to create agenda setting theory. In the first step, an event should occur. In the second step, it should attract the attention of a media station to cover the news. In the third step, the media displays the news to the public by publishing a given event or topic. In the fourth step, the public are aware of a given event or topic and try to understand what event occurred and why. In the final step, people create a framework for the given event or topic. The framework created by the public is very similar to the framework created by the media. Creating a framework includes selecting a number of given events or topic attributes to be published in mass media and social media. In general, media framework suggests which topic to be selected, removed, emphasized or discussed in detail. Actually, the media not only sets the agenda, but also transmits salience of the specific attributes of the event or topic (Griffin, 2012).

Levels of the Agenda Setting Theory

The first level (Topic). This level refers to transmission of a topic salience from mass and social media to general public. In other words, this level refers to control of what the audience think about by the media. Actually, the first level of agenda setting theory induces the audiences to think about their desired topics.

The second level (Attribute). This level refers to transmitting salience of some attributes of a topic from the mass media and social media to general public. The second level induces audiences to think about their intended topic based on salience of its attributes. Attributes of the topic include descriptive factors such as properties, qualities and characteristics. For example, if the topic is a presidential candidate, its attributes can be intellectual ability, moral quality and leadership ability. In this level, two categories including intrinsic and effective attributes help to understand the topic. Intrinsic attributes are cognitive characteristics used by journalists to describe topics in the media content. Effective attributes are the tone used by journalists when they describe topics (Ragas, 2013).

The third level (Network). This level refers to transmitting salience of network communications between topics or attributes plus separated elements from mass media and social media to general public. Actually, in this level, not only the salience of topics and their attributes are transmitted from the media to general public, but also the salience of the communications between them are transmitted. It should be noted that this level has been considered in recent researches (McCombs, Shaw & Weaver, 2014) (Figure A1).

Concepts of the relationship between agenda setting theory and knowledge and information science will be discussed in the next section.

Discussion

Agenda Setting Theory and Library Corporate Reputation

People can be aware of the existence and nature of an organization in several ways. Different ways of people awareness include direct and indirect experiences of an organization. The direct experience of the organization consists of referring to the organization as general user, researcher, employee, etc. The majority of people are aware of the existence and nature of an organization through indirect experience. Indirect experience of the organization is formed by the statements of family members, friends or colleagues about an organization. Moreover, information distributed via mediators such as mass media and social media indirectly affect people awareness of an organization (Ragas, 2013).

Many studies carried out on the corporate reputation have identified news media as a potential introduction to corporate reputation (e.g. Fombrun & Shanley, 1990). Fombrun believed that when a few people have direct access to the internal affairs of organizations, they rely on information provided by news reporters and analysts as mediators. News reporters and analysts show, direct and mediate the information. They help people to understand the terms of organizations activities, thus they affect reputation of corporates. In studies conducted in this field, the agenda setting theory was often a framework to guide these investigations. Even when this theory was not explicitly stated, the concept of the media salience was implicitly mentioned in the investigation of the connection between representation of corporates in mass media and corporate reputation.

The relationship between mass media and corporate reputation in different organizations including commercial organizations and cultural organizations, such as museums, has been shown in many experimental studies (e.g. Zyglidopoulos et al., 2012; Bantimaroudis et al., 2010). Libraries and information centers, as organizations, also obey this rule, and it seems that representation and reflection of libraries and information centers in mass media and social media can affect their corporate reputation. In fact, application of agenda setting theory is so that images transmitted to public by the media form the attitudes and beliefs of different people about libraries and information centers. Actually, saliences of libraries and information centers in mass media and social media have a major impact on referring to them. It seems that this is due to the unknown activities of libraries and information centers and topics of knowledge and information science in the society (Yaqtin & Jokar, 2014; Vaziri, 2003). Reflection of libraries and information centers in mass media and social media, by increasing their corporate reputation, leads to introduce their different activities and topics of knowledge and information science and also causes a situation that makes people find out their need to

libraries and information centers, and refer to these organizations and move toward studying. However, due to the lack of study on these two variables in libraries and information centers, both inside and outside the country, conducting an experimental study in order to prove the relationship between these two variables in libraries and information centers seems necessary. In the next section, the effects of mass and social media on corporate reputation of libraries and information centers are described based on the agenda setting theory.

Reputation Dimensions and Agenda Setting Levels in Libraries

Carroll (2004) used the first and the second levels of agenda setting theory for different dimensions of corporate reputation for the first time. Different dimensions of corporate reputation include the organization salience, its general validity, and its attributes. The organization salience refers to public subjective awareness of a given organization. General validity of the organization refers to the level of interest, respect and trust of the public to a given organization. The organization attributes refer to its intrinsic characteristics related to the nature and existence of the organization (Carroll, 2009; 2010).

Carroll (2011) showed the relationship between dimensions of the media coverage and dimensions of the reputation with respect to the first and second levels of agenda setting. He showed that there is a direct correlation between salience of the organization in media and its salience among general public (the first level of agenda setting). He also stated that there is a direct relationship between salience of the organization effective attributes in media and its general validity (the second level, effective agenda setting). Moreover, there is a direct relationship between salience of the organization intrinsic attributes in media and salience received from organization attributes in general public (the second level, intrinsic agenda setting). Considering this assumption, it seems that these relationships can also be true for libraries as cultural organizations (Figure A2). But experimental studies are required to prove these relationships in the case of libraries.

As shown in Figure A2, salience of a library, as an organization, in mass and social media affects its salience in general public (the first level of agenda setting). In fact, libraries should achieve a level of visibility to draw the attention of people to themselves. Carroll (2010; 2011) showed that a large volume of news reports about an organization affect the level of general public awareness of the organization. Many studies such as Cha and Yang (2011), Ihlen and Bronn (2011) also showed that there is an extensive relationship between the media attention to an organization and salience of the organization.

Moreover, according to Figure A2, salience of effective attributes of a library, as an organization, in mass and social media may affect the library public validity (the second level, effective agenda setting). In other words, if the effective attributes of a library are more reflected in mass and social media, the library public validity and interest, respect and trust of the public to the library will be increased. Effective attributes refer to the way of attention and tendency of media to libraries. Libraries can be evaluated as positive, negative and neutral in mass and social media. In addition to the overall evaluation, the tone of library evaluation in mass and social media can affect public's judgment about the library (Kim, Kioussis & Xiang, 2015). Overall evaluation of library may affect people with more knowledge about library attributes, and the tone of library evaluation will affect people with less knowledge about

library attributes (Carroll, 2009; 2011; Dalpiaz & Ravasi, 2011).

Figure A2 also shows that salience of intrinsic attributes of libraries in mass and social media has an effect on salience of libraries attributes in general public (the second level, intrinsic agenda setting). News media can provide different levels of attention to libraries intrinsic attributes such as library productions and services, goals and management, policies, environment and social responsibility. Some library attributes can be highlighted in news covered by the media, less attention may be paid to some attributes and some attributes may be ignored (Ragas, 2013).

Agenda Setting and Users' Queries

User query is one of the aspects of agenda setting theory and knowledge and information science which can be used in experimental researches in both fields. In the first experimental study on agenda setting theory (McCombs & Shaw, 1972) the media content analysis and survey technique (interview or questionnaire) were used in order to measure and determine the relationship between "media agenda" and "public agenda", respectively. Then, most studies in the field of agenda setting also used content analysis and survey technique to rank topics in mass and social media based on the amount and salience of news coverage and topics priority ranking in general public based on their responses to questions and comparison of the two rankings (Luo, 2013).

Scharkow and Vogelgesang (2011) proposed a new idea to measure public agenda without survey techniques due to the problems associated with survey techniques in measuring public agenda such as interviewer bias, time-consuming, etc. They emphasized on immediate response of the audience after highlighting a topic in the media. They believed that salience provides an unobservable variable, while the immediate responses of audiences, such as using the media for the salient topic, provide clear and measurable variables. The results of their study showed that there is a strong direct correlation between online search for information by users and salience of the topic in their minds. Therefore, online search for information can be used as a good indicator for the salient topic in general public.

Because search engines are the first and perhaps the only means of information searching for millions of people, integration of user queries in search engines can be used as a valid measure of the public agenda. In fact, user query is the audience immediate response which occurs after highlighting a topic by the media. In fact, when a topic is highlighted by the media and is transmitted to people minds, people will search the topic on search engines. Researchers can also use the user queries to examine public agenda (Bloj, 1975).

Until recently, access to searched data for research purposes was not allowed. Recently, Google integrated the search log files results in GIFS¹ format and made them accessible for the public. GIFS not only provides public access to queries log files, but also offers the possibility to limit search by search terms, time frame, and region. In addition, researchers not only see graphical representation of data but also download the search data tables of particular queries. These data are used for agenda setting researches (Scharkow & Vogelgesang, 2011).

Moreover, the mentioned data can be used in researches in the field of knowledge and

¹ GIFS: Google Insights for Search

information science in order to determine the information needed by the users of libraries and information centers. As mentioned earlier, with the salience of a topic in public mind, they start searching about that topic. So, it can be said that the public agenda or mental priorities of people shows their information needs. In this regard, information needs of public library users, including all members of the society, can be determined by integrating users' queries in search engines. Accordingly, integration of users' queries in website and database of a particular library and digital libraries specific to this library can be used in researches in the field of knowledge and information science to determine information needs of users of different libraries. But since salient topics are changed in people's minds over time, it seems necessary to conduct these researches at various time intervals. Determination of information needs of library users can be done for set-building and doing side activities in libraries such as organizing thematic exhibitions. It should be noted that set-building performances of librarians at libraries are a kind of agenda setting which will be discussed in the next section.

Agenda Setting Theory and Set-Building in Libraries

If we pay attention to set-building performance in libraries from the perspective of agenda setting theory, it can be seen that in libraries and information centers librarians use agenda setting to select information resources. Librarians act as facilitators of information transmission from a human producer to a human consumer. In fact, librarians play the role of information mediators like mass and social media. As a result, librarians can affect the mind of library users and form their opinions through highlighting a particular topic. In other words, librarians transmit the salience to users' minds by selecting information resources in a specific field and highlighting the field. However, librarians select information resources according to users' needs. Political and social factors also affect the selection of resources by librarians and make them to pay more attention to specific topics. In fact, librarians highlight the topics by exerting political and social limitations and emphasizing on special topics in selecting information resources (Atapour, 2014).

Moreover, researches in the field of knowledge and information science may affect libraries set-building performances by determining core journals based on Bradford's law. In fact, the mentioned researches help librarians to select correct journals. Therefore, librarians apply agenda setting and draw the attention of general public to these resources by selecting core journals.

In the side activities of libraries, librarians apply agenda setting and can draw users' attention to specific books and special topics by selecting books to display in the library showcases, conducting meetings at the library to introduce books, or introducing books at the library website (Ashrafirizi & Kazempour, 2015).

Conclusions and Recommendations

Two areas of information and communications have issues in common. Obviously we can use the theories presented in each of these sciences in the other one. The agenda setting theory, as one of the most important theories in the field of communication science, can be linked to knowledge and information science. Results showed that agenda setting theory can be connected to knowledge and information science in three aspects including corporate

reputation of libraries and information centers, users' queries, and set-building. So, based on the plan of scientific categorization of information science published by Information Science Abstracts (Rubin, 2004), agenda setting theory is linked to knowledge and information science in the fields of management and organizational aspects of libraries, dissemination of information and introducing resources, acquisition and development of the collection.

Based on the connection between agenda setting theory and corporate reputations of libraries and information centers, it can be said that more reflection of libraries and information centers and their attributes in mass and social media can increase their corporate reputations. Increase in the corporate reputation of libraries and information centers leads to more referring to them, more study, and more awareness of people about activities and topics of knowledge and information science. Therefore, it is recommended to carry out a study on experimental assessment of the relationship between these two variables based on the agenda setting theory in libraries and information centers.

The relationship between agenda setting theory and users' queries is used in experimental researches in the field of agenda setting and knowledge and information science. In fact, we can achieve the users' agenda or their mental priority by integrating their queries in search engines, databases, the library website, etc. These data are used in researches in the field of agenda setting in order to determine public agenda, and they are also used in researches in the field of knowledge and information science in order to determine users' information needs in different libraries especially in public ones. It is recommended that further experimental studies be carried out in order to determine the validity of using integration of users' queries instead of survey techniques related to public agenda determination and common methods used for determining the information needs of library users.

Agenda setting theory is linked to set-building so that librarians apply agenda setting by selecting resources for the library or side activities such as introducing books and organizing book exhibitions.

All issues mentioned above indicate the close relationship between the concepts of communication science and topics of knowledge and information science. So, researchers in these two fields can use the knowledge of each other to promote scientific advancements. It seems that by conducting other studies, we can assess application of other communication theories in the field of knowledge and information science.

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Appendix A

Figures

Figure A1

Levels of Agenda Setting Theory

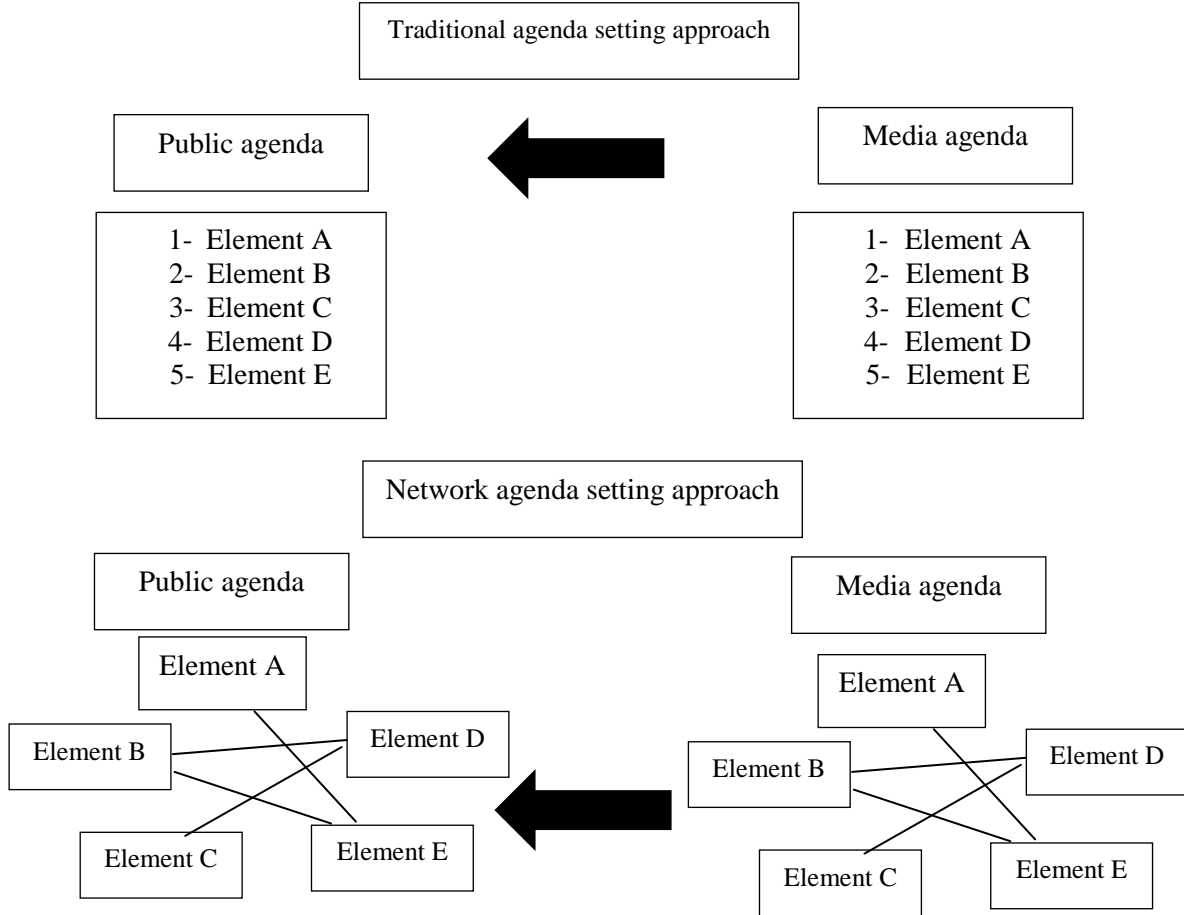


Figure A2

The Impact of Media Agenda on Library Reputation

