

The concept of gatekeeping in information science: A philosophical reflection

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Abstract

The gatekeeping phenomenon has been studied in varied fields, and it has been applied with different meanings and purposes. The concept was coined in 1947 by Kurt Lewin to study food habits. He described housewives as gatekeepers who decide what food is appropriate, thus, led to the concept that gatekeepers control and effect members' decision. This phenomenon attracted researchers from other fields. In 1977, Thomas Allen was the first scientist from the information science field to investigate the information flow in R&D labs. He described gatekeepers and established their characteristics. The purpose of this paper is to review the concept in current literature. The paper represents significant findings to prove the importance of gatekeeping in diverse contexts such as medical and business fields. This philosophical review gives a broad understanding of the concept that may open new routes for future studies and optimistically add value to the field of information science.

Keywords: Gatekeeping, collaborative gatekeeping, information seeking, information behaviour, collaborative information seeking.

1. Introduction

Gatekeeping is a ubiquitous and varied phenomenon, which can be found in many daily activities (Barzilai-Nahon, 2009). The term was first coined by psychologist Kurt Lewin (1947). Lewin has used this concept to study the food consuming and eating habits of families. The author found that housewives play the role of gatekeepers in determining what kind of food that family members can eat. In other words, gatekeepers are 'filtering out things undesired under certain conditions or in accordance with certain criteria' (Dimmick, 1974; Shoemaker, 1991). The gatekeeping concept has attracted many researchers from different fields. However, it has been used with different terms that at the end denote the same meaning. For example, scientists in sociology, mass communication, library and information science, management science, health care, education and organisation behaviour use the term 'gatekeepers' (Agada, 1999; Cullen, 1997; Lewin, 1951; Metoyer-Duran, 1993a, 1993b; Shoemaker, 1991; Tushman & Katz, 1980), in management science, they use boundary spanners and communication stars (Nochur & Allen, 1992; Zoch, 1993), in anthropology, they use 'cultural brokers' (Snyder, 1976), in education as language brokers (Chu, 1999), in library and information science, the term mediators is used for technical gatekeeper (Chu, 1999) and in urban planning, change agents and innovators are used (Kurtz, 1968). Interestingly, 'gatekeeping' as a term is sometimes used to describe non-human mechanisms such as network gateways and filtering systems (Brown, 2002).

As has been described in this introduction, giving a generalised definition that is suitable to all fields is unlikely possible since the concept has been applied in different contexts and used with different meaning.

This paper reviews the literature to provide a proud understanding of the gatekeeping concept and shows how researchers used and studied this phenomenon in the field of information science.

2. Background

Lewin (1947) used this concept to explain some communities' social aspects such as eating habits of families. He described housewives as gatekeepers who control and decide what food should be on a dining table (see Figure 1), and by this concept, he conceptualised that any social change may be shaped by gatekeepers. Also, Lewin was interested to study the process of decision-making in groups. The author found that team members depend heavily on gatekeepers who observably effect group decision. Significantly, the author described the entry to a channel and to its units as a gate, and the stream through this gate is controlled by one or more gatekeepers.

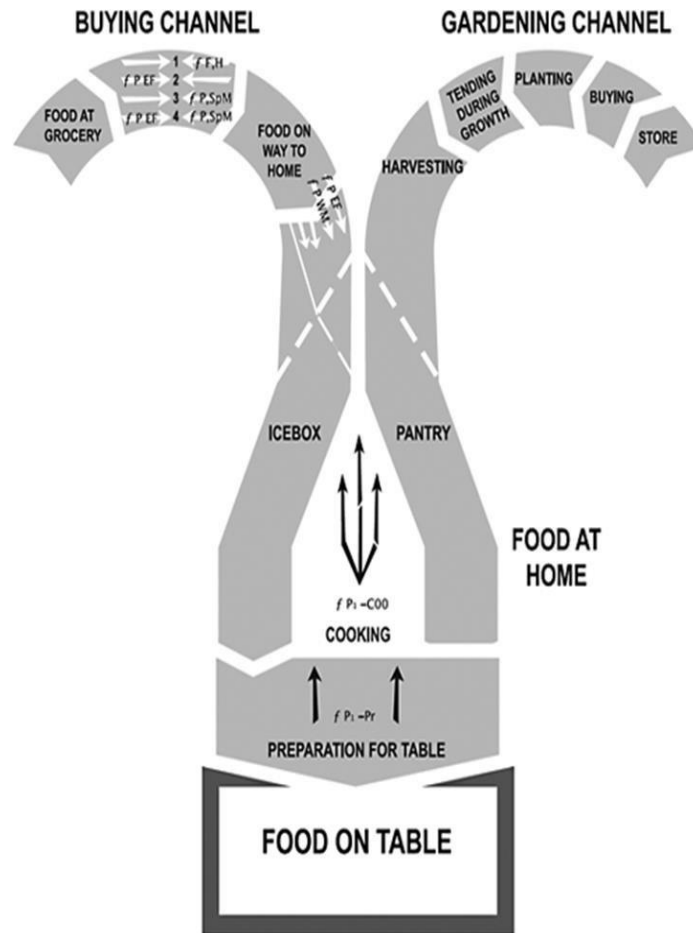


Figure 1. Kurt Lewin's 'Frontiers in group dynamics II: channels of group life; social planning and action research' (1947, p. 144).

Figure 1 shows how food items pass through two channels on their way to the family dining table. Channels are divided into sections, and at the front of each is a gate that regulates movement through the channel. Forces on both sides of the gate can either constrain or facilitate the movement of items through channels.

A gate is defined as the 'in' and 'out' process that passing information through this gate depends on the gatekeeping mechanism (Shoemaker, 1991, p. 2). Lewin (1952) states that a gatekeeper always links people to something outside, and this external boundary refers to things unfamiliar or unknown to group members. A gatekeeper, thus, can be defined as 'a person who controls a strategic portion of a channel, and through filtering, links people to something 'outside'—whether that channel or thing 'outside' is for information, goods, news or people' (Lu, 2007). The concept established a new way for researchers to study and investigate these findings broadly.

Thomas Allen was the first researcher from the information science field who studied the gatekeeping concept in his dissertation. Later, the concept was developed and expanded by Allen and other researchers (Allen, 1977; Allen & Cohen, 1969; Allen, Piepmeier & Cooney, 1971; Gerstberger & Allen, 1968). In 1977, Allen conducted a study to investigate the information access and flow in R&D environments. He found that the personal network is the main transfer channel, and technological gatekeepers play the role of controlling the information flow. This early study described the collaborative seeking behaviour of engineers and scientists in R&D. Allen established the concept of a gatekeeper, and he found that there are one or more gatekeepers in any collaborative teamwork.

He described gatekeepers as members who are 'contributing to their project's work in direct and meaningful ways' (Allen, 1977). The key advantage of these gatekeepers is their external contacts: they engage in all problem-solving processes and take the responsibility to find solutions, give advice and guide team members to satisfy their information needs. Moreover, the significant part of their jobs is to find appropriate information sources and send them to team members or organisations. The author concluded that team members and gatekeepers work collaboratively to find out the information that is needed for their work. Moreover, Allen identified some of characteristics that describe gatekeepers and the members who interact with them. He found that gatekeepers are dynamic technical actors, and they are first-line supervisors, therefore, team members depend on them in finding information.

Tushman and Katz (1981) studied the influence of gatekeepers on project performance in a major R&D facility. In this study, the authors found that gatekeepers have an important effect on the ability of project members to communicate successfully with external sources of technological information. At the same time, they proved the major role that gatekeepers can play in facilitating and transferring of external information to internal local project team members. Moreover, the authors found that gatekeepers should study the outside boundary and its resources before interpreting and absorbing the needed information, and then, they will be able to translate this information to be valuable for project team members. Tushman and Katz states that the gatekeeping mechanism requires a high level of selectivity and interpersonal skills that allows gatekeepers to communicate internally and externally with information resources. Thus, Tushman and Katz defined gatekeepers as boundary spanners who work with internal and external information sources through formal and informal channels to collect information and pass them to team members.

From this perspective, only relevant external information will be transferred into the project group members, and this is because of the power of boundary spanning activities of the projects' gatekeepers (R. Katz & Tushman, 1981). Very interestingly, the authors found that the job of gatekeepers was not only limited to transmitting information from external resources to team members but also they involved team members in utilising external resources. Consequently, complex tasks, which require a lot of time and effort, were better performed by socialising team members with external resources and involving them in the selecting process. One of the significant findings is 'Gatekeepers may work to reduce communication boundaries between their projects and external areas by directing, training and coaching the external communications of their fellow project members' (Tushman & Katz, 1980). Under these conditions, gatekeepers and team members effectively gather information from external resources, and they can work in a dynamic collaborative environment. The findings in this study proved the effectiveness of information transfer and its relations to task performance.

Edmunds and Morris (2000) stated that 'while there are obvious benefits from easier access to information, research has found that information overload can lead to stress, loss of job satisfaction and physical ill health' (p. 18). Moreover, they stated that stress can be formed due to the lack of control. Thus, Edmunds and Morris (2000) mentioned that information specialists could be one of the significant suggested solutions that would help businesses to solve the uncontrolled media and information overload. In their study, the authors comprehensively discussed the factors that could lead managers to information overload. These factors are as follows:

'they collect information to indicate a commitment to rationalism and competence which they believe improves decision-making; they receive enormous amounts of unsolicited information; they seek more information to check out the information already acquired; they need to be able to demonstrate justification of decisions; they collect information just in case it may be useful; they play safe and get all information possible; they like to use information as a currency not to get left behind colleagues'. (Butcher, 1998, pp. 53–54 as cited in Edmunds & Morris, 2000)

Edmunds and Morris (2000) described information specialists as gatekeepers who play a big role in accessing, evaluating and transferring valuable information to team members. The authors stated that 'it would seem an obvious solution to the problem of information overload in businesses to employ specialists in information handling to carry out the acquisition of relevant information processing and packaging the information needed as appropriate' (Edmunds & Morris, 2000, p. 26). Furthermore, they commented that 'the information specialist would have a greater knowledge of the team's information needs' (Edmunds & Morris, 2000, p. 26). This solution is very similar to Allen's idea of active gatekeepers: those who have an access to external and internal information resources can transfer only filtered and required information to their team members in an effective method. In Edmunds and Morris' study, the authors suggest that information specialists (gatekeepers) may reduce the amount of information overload on managers, and they make the searching, collecting, filtering and transferring information as the main job of gatekeepers.

In current literature, Spence and Reddy (2007) studied the concept of gatekeeping in the medical context. They found that clinical teams, which are doctors and medical practitioners, and non-clinical teams work collaboratively to find the needed medical information. In this study, Spence and Reddy (2007) found secretaries, who represent the non-clinical team, take the place of the gatekeepers in medical collaboration seeking. Active gatekeepers in the medical field play an imperative role in providing the clinical team with quick and proper information, thus, providing a high quality patient care (Spence & Reddy, 2007).

Figure 2 shows the importance of those gatekeepers and their important jobs in providing valuable information in such critical cases like those cases in the emergency rooms at hospitals or in similar settings by utilising and connecting internal and external resources together.

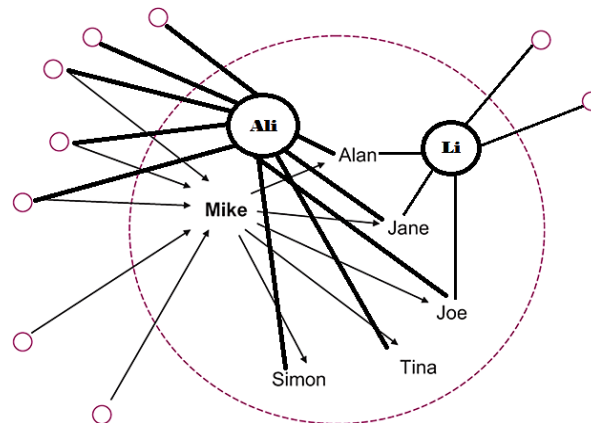


Figure 2. Multiple gatekeepers

In this case, we can realise that when gatekeepers are playing role inside and outside, we can call them multiple gatekeepers who control the flow of information through various functions and resources.

Albar (2015) studied the collaborative information seeking behaviour in technical support setting, and the author found that lack of knowledge, lack of access to information and resources and level of technical task complexity are triggers to establish the collective work. The author mentioned that gatekeepers could be utilised as one of the human resources in IT to find technical solutions. Moreover, Albar (2015) concluded that gatekeepers are important members in any technical support setting and their role is not only to provide solutions but also to establish a productive working environment, guide IT agents, enhance the quality of service and raise the level of customer satisfaction.

3. Factors affecting gatekeeping

From the previous section, studies show evidences that prove the important role of gatekeepers, and they described the act of those gatekeepers in collecting data, filtering and translating them into valuable information, and transferring what is required to right team members. Lu (2007) conducted a multidisciplinary analysis of the concept of gatekeeping. In this study, the author explored how gatekeepers originate, and are identified in a very interesting way why some people become gatekeepers while others do not. Moreover, the author discussed what kinds of gatekeepers can generally be originated, and what characteristics they share. Under this section, some important factors are reviewed in order to give a clear understating of the nature of gatekeepers and their common characteristics. Researchers use two common terms to describe gatekeepers in groups. They are 'Molecular leaders' and 'Opinion Leaders'. These two coined words are used to describe people who are 'likely to influence other persons in their immediate environment' (E. Katz & Lazarsfeld, 1965). In one study, E. Katz and Lazarsfeld (1965) found the three ways by which a team member becomes a gatekeeper. First, they found that any member who has an extensive interaction among group members under a given situation will be implicitly or explicitly nominated as a gatekeeper. There are clear factors such as knowledge, experience and frequent interactions which generate a gatekeeper. Thus, these factors will make this gatekeeper the most appropriate person to lead the group and deal with its events and needs. Second, social positions such as secretaries or project managers play a big role in originating gatekeepers since other members frequently ask them for consulting. Additionally, the advantages of these positions increase the chances for those members to become gatekeepers due to the greater access to information resources, the greater mobility and wider contact. This is very similar to the concept of the active gatekeeper in the medical field. Spence and Reddy (2007) found the secretary takes the act of active gatekeepers who collect data from external resources and transfer them to internal clinical teams in quick and adequate ways, thus, providing a high quality patient care. Third, cultural certifications are another imperative factor in generating gatekeepers. Lu (2007) states, 'These leaders are culturally legitimated or endowed to exert influence on other group members'. For example, a mother decides what healthy food is for her family, and a father decides where to live and provides a safe place for his family. Age and interest are other cultural factors. For instance, modern young ladies influence fashion, and teen video gamers choose and rate which games are best.

Allen and Cohen (1969) discuss a great point that gatekeepers should not be endorsed to management tasks or be in any managerial positions which may hinder the flow of information. This clearly means that gatekeepers should be broadly acknowledged and utilised in order to provide desired results. Understanding these factors will help organisations and team members themselves to identify and recognise gatekeepers; very importantly, they should give them the required privileges and rights to information resources and other related elements in order to establish an active environment of communication and successful interactions.

4. Conclusion

The literature has shown the diverse uses of this concept. As has been proven in the literature, researchers have used and applied the gatekeeping to describe the procedures and events of groups. The first use of this concept was by the physiologist, Lewin (1947, 1952) to explain some of communities' social aspects such as eating habits. In this study, housewives were described as gatekeepers who control and provide food that should be on a dining table. By this concept, he conceptualised that any social change may be shaped by gatekeepers. The concept has taken a broad path and extensively attracted information scientists and others.

Allen (1977) established the concept of gatekeeping when he studied the information flow in R&D environments. He described gatekeepers as members who are 'contributing to their project's work in direct and meaningful ways'. Also, they engage in all problem-solving processes and take responsibility to find solutions, give advice and guide team members to satisfy their information needs. In the business

field, Edmunds and Morris (2000) suggested information specialists to solve the problems that many managers face due to the Internet and information overload. Those information specialists take care of the searching and collecting data as a primary task for them, thus, reduce the amount of information overload. Allen and Cohen (1969) noted that gatekeepers should not take any of managerial tasks or positions in order to focus on controlling the information flow and giving desirable results.

In the recent study of Spence and Reddy (2007), they studied the concept of gatekeeping in the medical context to investigate their imperative responsibilities in providing information and controlling the information flow in these critical settings. They found the secretaries take the place of gatekeepers in the medical collaboration information seeking. They name those secretaries as active gatekeepers who provide the clinical team with quick and proper information; thus, they play a big role in providing a high quality patient care (Spence & Reddy, 2007).

It can be concluded that the previous and current literature show the importance of those gatekeepers and their significant role in providing valuable information to their team members. However, current literature tested the concept in few settings. Spence and Reddy (2007) tested the concept in emergency rooms and found secretaries were the main gatekeepers in the medical field. In another study, the use of gatekeeping was suggested to eliminate the overload of information in businesses. In technical support setting, the role of gatekeepers was to guide and support IT agents and to empower them with effective solutions and technical and human resources. However, there is a necessity for more studies to investigate this concept in other settings and discover more characteristics of gatekeepers, and very importantly to set a guide line for best utilising those gatekeepers especially in critical cases and environments such as those in emergency rooms at hospitals. This paper has highlighted some points and ideas to scholars in the information science field, and hopefully this will lead to number of future studies to improve the importance role of gatekeepers and the important role that they play in different contexts and settings.

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