

TOWARD A THEORY OF NETWORK GATEKEEPING: A FRAMEWORK FOR EXPLORING INFORMATION CONTROL

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ABSTRACT

Gatekeeping theories have been a popular heuristic for describing information control for years, but none have attained a full theoretical status in the context of networks. This paper aims to propose a theory of *Network Gatekeeping* comprised of two components: *Identification and Saliency*. *Network Gatekeeping Identification* lays out vocabulary and naming foundations through the identification of gatekeepers, gatekeeping and gatekeeping mechanisms. *Network Gatekeeping Saliency*, which is built on the bases of the *Network Identification Theory*, utilizes this infrastructure to understand relationships among gatekeepers and between gatekeepers and gated, the entity subjected to a gatekeeping process. *Network Gatekeeping Saliency*¹ proposes identifying gated and their saliency to gatekeepers by four attributes (1) their *political power* in relation to the *gatekeeper*; (2) their *information production ability*; (3) their *relationship* with the *gatekeeper*; and (4) their *alternatives* in the context of *gatekeeping*.

KEYWORDS

Gatekeeping, theory, Information Control, Networks – politics, Politics of Information

¹ Saliency refers to the degree to which gatekeepers give priority to competing gated claims

1. INTRODUCING GATEKEEPING AND THE NEED FOR A NEW THEORY

The concept of *gatekeeper* was first coined by social psychologist Kurt Lewin (1947, 1951). His theory of *channels and gatekeepers* was developed to explain the focal points of social changes in communities. Since Lewin's use of the *gatekeeper* concept, it has become embedded in various fields of scholarship, including political science, sociology, information science, management, and law (Clayman & Reisner, 1998; Klobas & McGill, 1995; Putterman, 2005; Suchman & Cahill, 1996; Tushman & Katz, 1980). Additionally it has been applied to practical domains such as journalism (e.g., understanding newspaper editors as gatekeepers), health science, operations research, and technology development (e.g., understanding consultants who provide a second opinion or function as intermediaries between clients and services) (Beckman & Mays, 1985; Metoyer-Duran, 1993; Shoemaker, 1991; Shumsky & Pinker, 2003b).

However, as popular as the term has become and as richly descriptive as it is, there is little agreement among the different fields on its meaning and a lack of full theoretical status. Moreover, attention to gatekeeping in the context of information and networks is even rarer (Birnhack & Elkin-Koren, 2003; Deuze, 2001; Dimitrova, Connolly-Ahern, Williams, Kaid, & Reid, 2003; Hargittai, 2000b; Singer & Gonzalez-Valez, 2003; Zittrain, 2006). That is, there is a lack of agreement on who *network gatekeepers* are and what *gatekeeping* is; and why should it matter? The first question, depicting who are network gatekeepers and what constitutes network gatekeeping and its mechanisms calls for a descriptive theory of *Network Gatekeeping Identification* to explain disputed or undefined constructs and vocabulary. The second question, understanding why these issues should matter, calls for a normative theory of *Network Gatekeeping Salience* to explain relations among *gatekeepers* and between *gatekeepers* and *gated*² in order to better understand *network gatekeeping* as it occurs. These two complementary theories constitute a full theory of *Network Gatekeeping*, which is necessary in an information age. A theory of *Network Gatekeeping* in a networks context will reliably separate gatekeepers from non-gatekeepers in the information society, providing an analysis of the interactions between them and of gatekeeping as a whole.

The organization of the paper is as follows: First, traditional *gatekeeping* literature from various fields including information science, communications and management is introduced. These bodies of knowledge serve a basis to develop new interdisciplinary vocabulary and key constructs for *Network Gatekeeping Identification*. It also includes the creation of a basic classification for the following key constructs: *gatekeeping*, *gatekeeping mechanism* and *gatekeeper*. This part answers the first question: who are *network gatekeepers* and

² A gated is an entity subjected to a gatekeeping process. See Section 3.1 for elaborations.

what constitutes *network gatekeeping* and its *mechanisms*. Based on the foundations proposed in *Network Gatekeeping Identification* theory the paper develops a normative theory to understand the interactions among *gatekeepers* and between *gatekeepers* and *gated* (*Network Gatekeeping Salience*). It is developed to explain to whom and to what should *gatekeepers* pay attention, and under what conditions. For that purpose this paper identifies *gated* and their salience to *gatekeepers* through four attributes: (1) their *political power* in relation to the *gatekeeper*; (2) their *information production ability*; (3) their *relationship* with the *gatekeeper*; and (4) their *alternatives* in the context of *gatekeeping*. A comprehensive typology of *network gatekeeping salience* is produced based on the normative assumption that these variables define main aspects of the field of *gatekeeping*. *Network Gatekeeping Salience* theory provides an opportunity for the theory of *Network Gatekeeping Identification* to move forward by showing the interaction between power and information. These two complementary theories constitute a full theory of *Network Gatekeeping*.

Network Gatekeeping theory suggests a dynamic and contextual interpretation of *gatekeeping*, referring to *gatekeepers* as stakeholders who change their *gatekeeping* roles depending on the stakeholder they interact with and/or the context in which they are situated. A *gatekeeper* can be a *gated* in certain circumstances and vice versa. It allows predictions to be made about *gatekeepers* behavior with respect to each class of *gated*, as well as predictions about how *gated* change from one class to another and what this means to *gatekeepers*.

2. TRADITIONAL THEORIES AND CONCEPTS OF GATEKEEPING

Shoemaker (1991, p. 1) provides the following definition of gatekeeping: "Simply put, gatekeeping is the process by which the billions of messages that are available in the world get cut down and transformed into the hundreds of messages that reach a given person on a given day," (p.1). Gatekeeping in the communication literature is conceived mainly as a selection process. The literature treats the gatekeeper in a similar way to Lewin's concept where it is applied to both interpersonal and mass communication (Shoemaker, 1991; Shoemaker, Eichholz, Kim, & Wrigley, 2001). Lewin conducted experiments on group decisions and argued that group decisions depend heavily on aspects of social steering through *gatekeepers*. He describes the entry to a channel and to its sections as a *gate*. Movement within the channel and between the channel and its external environment is controlled by one or more *gatekeepers* or "impartial rules" (Lewin, 1951, p. 186). Accordingly, Shoemaker (1991, p. 2) defines a gate as an "in" or "out" decision point.

Lewin's gatekeeping theory has yielded various studies and models in various disciplines that have attempted to explore the forces that determine, facilitate, or constrain the process of gatekeeping, that is, the

decision whether or not to allow information to pass through the gate. The formative years of the development of gatekeeping theories happened mainly in the communication and journalism fields where the focus was mainly on the effect of the subjective characteristics (e.g., personal feelings) of editors/gatekeepers on gatekeeping (Snider, 1967; White, 1950). For example, White suggested a simple model that underscores the gatekeeper as the focal point that controls the information flow. He argued that news items were rejected because of three reasons: personal feelings, insufficient space, and whether the story already appeared before.

Shoemaker (1991) classified theories and models of gatekeepers developed since Lewin into five main categories. (1) *The individual level* looks at the extent to which individuals are responsible for the gatekeeping selection, and consist of individuals' interpretation (Kahneman, Slovic, & Tversky, 1982), decision making (Gandy, 1982), personality (Lewin, 1951; White, 1950), background, values, role conceptions (Bass, 1969), and experiences. (2) *The routines level* (Gieber, 1956) refers to those "patterned, routinized, repeated practices for forms that media workers use to do their jobs." (p.48) (3) *The organizational level*, includes internal factors that vary by organization and at times by a group's decision-making patterns (Bantz, 1990). (4) *The institutional level*, concentrates mainly on the exogenous characteristics of organizations and their representatives that affect the gatekeeping process (e.g., market forces, political alliances) (Donohue, Olien, & Tichenor, 1989). Finally, (5) *The social system level* explores the impact of ideology and culture on gatekeeping (Gramsci, 1971 [1926-37]).

In the late 70's many other disciplines began using the *gatekeeper* term and applied it to their own domain. The field of Management refers to *gatekeepers* mainly as intermediaries (Allen, 1977; Schultze & Boland, 2000; Taylor, 1986; Tushman & Katz, 1980) or "key individuals who are both strongly connected to internal colleagues and strongly linked to external domains," (Tushman & Katz, 1980, p. 1071). Information Science treats *gatekeepers* as those who guard and preserve a community's information (Agada, 1999; Metoyer-Duran, 1993) or as agents to gather and disseminate information (Klobas & McGill, 1995; Sturges, 2001). Table 1 integrated the literature of Information Science, Management and Communication. It illustrates factors that impact gatekeeping in its traditional meanings and the relationships between gatekeepers and other factors as captured in the communication, information science and management literatures.

Table 1: Forces that Affect Gatekeeping in Traditional Literature

Subjective Factors	
Personal judgment	Gatekeepers decisions are highly subjective – mainly media studies literature (Bagdikian, 2004; Livingston & Bennet, 2003; Snider, 1967; White, 1950).
Trust	Doubtful credibility of a gatekeeper and lack of experience have a negative effect on the gatekeeper’s decision of gatekeeping (Shoemaker, 1991). Trust in gatekeeper’s competence to make use of information (Allen, 1997)
Information Characteristics	
Visual	Information content are less likely to be subjected to gatekeeping if they are visual (Abott & Brassfield, 1989).
Size and number	Growing volume of information and number of available items and their size serve to increase gatekeeping (Gieber, 1956).
Clarity	Positive relation with acceptance of news (Galtung & Ruge, 1965).
External Constraints	
Cost	An expensive process increases the likelihood of gatekeeping .
Time constraints	Proximity to deadline increases the tendency toward gatekeeping (Galtung & Ruge, 1965; R. L. Jones, Troidahl, & Hvistendahl, 1961; Livingston & Bennet, 2003).
Mechanical production	A problematic effort to produce information tends to generate gatekeeping (Gieber, 1956).
Unavailable technology	The likelihood of gatekeeping increases with decreased availability of publication technology (Livingston & Bennet, 2003) .
Organizational Characteristics and Procedures	
Role	The actor’s position (e.g., news gatherer, news processor, reporter, editor, community leader, linker) affects the gatekeeping decision (Allen, 1977; Bass, 1969; Dimmick, 1974; Klobas & McGill, 1995; Livingston & Bennet, 2003; Metoyer-Duran, 1993; Westley & MacLean, 1957).
Policy	Routines that establish working relations between reporters and the source determine the nature of gatekeeping (Livingston & Bennet, 2003; Westley & MacLean, 1957).
Threshold value	Higher value of information reduces chances of passing gatekeeping (Galtung & Ruge, 1965).
Standard	The standards of the profession affect gatekeeping decisions (Bagdikian, 2004; Davison & Yu, 1974).
Institutional Environment	
Opinion leaders	Greater likelihood for accepting definitions of opinion leaders, which affects gatekeeping decisions (Allen, 1977; Dimmick, 1974).
Group consensus	Adopting a group consensus by daily professional interaction has a direct impact on gatekeeping (Bantz, 1990; Dimmick, 1974).
Market pressure	Maximizing profit and minimizing expenditures has an impact on gatekeeping (Donohue et al., 1989).
Social Environment	
Newsworthiness	An information item that is conceived to be newsworthy is less likely to pass gatekeeping – mainly media studies (Shoemaker et al., 2001).
Cultural differences	Information is more likely to pass gatekeeping if it is similar to the cultural preferences of society (Galtung & Ruge, 1965)

Table 1 exemplifies one of the motivations to develop a theoretical framework that would better fit an information society. All traditional models of gatekeeping ignore the role of those whom gatekeeping is being exercised upon (labeled here as the '*gated*'). Communication inclines to address gatekeeping as a one-way direction and a top-down process (Shoemaker, 1991). While information science addresses mainly gatekeepers

in communities or professional contexts (Metoyer-Duran, 1993), and management science addresses gatekeepers in the context of organizations (i.e., some kind of a professional network)(Katz, Tushman, & Allen, 1995), the major focus remains on the role of the *gatekeeper* rather than understanding how networks and information (human and technological) affect relations between *gatekeepers* and *gated*, and their impact on *gated*. The simple fact that no vocabulary exists in the literature that identifies these stakeholders exemplifies the passivity or negligence in which traditional models treat the *gated*. *Network Gatekeeping* precisely aims to cover this lacuna and analyzes *gated* and their relations with *gatekeepers*. Another motivation to develop a theory of *Network Gatekeeping* is that much of the literature regards *gatekeepers* as actors with power, without refining the question of what makes an actor a *gatekeeper*? Is anyone with power a *gatekeeper*? Finally, a context of information and networks makes it necessary to re-examine the vocabulary of *gatekeeping*, moving from processes of selection (media studies), information distribution and protection (information science) and information intermediary (management science) to a more flexible construct of information control, allowing inclusion of more types of information handling that occurred before, and new types which occur due to networks.

3. NETWORK GATEKEEPING IDENTIFICATION THEORY

As mentioned above, existing theories of gatekeeping misrepresent gatekeeping in a network context, a more frequently occurring type of information society. This paper mainly focuses on networks created by technology (e.g., the Internet). However, the proposed theory applies to other types of networks as well, such as social networks and information networks. A new theory is necessary since hybrid interpretations of the *gatekeeping* and *gatekeeper* concepts are scarcely employed with reference to the Internet, information society or networks (Birnhack & Elkin-Koren, 2003; Deuze, 2001; Dimitrova et al., 2003; Hargittai, 2000b; Singer & Gonzalez-Valez, 2003; Zittrain, 2006). When used, it is mostly for illustration purposes or application of the traditional communication, information science and management theories of gatekeeping.

Looking at evolutionary definitions of gatekeeping helps to identify main constructs to consider under the new framework. While traditional communication literature on gatekeeping treats the process of gatekeeping predominantly as a selection mechanism (Shoemaker, 1991, p. 1), Donohue, Tichenor, and Olien's (1972) definition takes the traditional approach further by looking at gatekeeping as a process that encompasses more than just selection, by "including all forms of information control that may arise in decisions about message encoding, such as selection, shaping, display, timing, withholding, or repetition of entire messages or message components" (p.43). In a network context this definition is translated to treat *gatekeeping* as a type of control

exercised on information as it moves in and out of gates, and provides one of the broadest views of gatekeeping. It will serve as a starting point to develop the key constructs of *Network Gatekeeping Identification* theory. Networks, technology and information contexts provide a variety of ways to perform *gatekeeping*, some of which did not exist before. This paper suggests that *Network Gatekeeping* is best conceptualized through information control lenses and carries three main goals: a 'locking-in' of *gated* inside the *gatekeeper's* network; protecting norms, information, *gated* and communities from unwanted entry from outside; and maintaining on-going activities within network boundaries without disturbances³.

3.1 BASE VOCABULARY OF NETWORK GATEKEEPING IDENTIFICATION THEORY

Next, key constructs and vocabulary to form the basis of *Network Gatekeeping Identification* theory are proposed: *gate* (the passage point); *gatekeeping* (the process); *gatekeeper* (who performs gatekeeping); *the gated* (on whom gatekeeping is exercised); and *gatekeeping mechanisms* (the means used to carry out gatekeeping). The nomenclatures of *gatekeeping mechanism* and *gated* do not exist in the literature and are proposed here as key constructs that are important to the full understanding of *network gatekeeping*. Below I analyze each of the constructs.

Gate⁴ is being defined here as entrance to or exit from a network or its sections. The nomenclature of *gate* in *Network Gatekeeping Identification* changes to reflect a greater number and type variations of *gates*. This mainly occurs due to the plurality of *Gatekeeping Mechanisms* options as discussed later. The existence of a clear *gate* (conceptual or physical) is almost impossible under *Network Gatekeeping* due to the dynamism of networks and information technologies, and therefore the concept of *gate* is of less importance than the rest of the *Network Gatekeeping* components.

Gatekeeping is being defined here as process of controlling information as it moves through a gate. Activities include among others selection, addition, withholding, display, channeling, shaping, manipulation, repetition, timing, localization, integration, disregard, and deletion of information. Table 2 below exhibits the bases of my definition of *gatekeeping*⁵.

³ Although these activities might be regarded with a negative connotation due the use of the word *control*, literature regarding the information society as well as political science in general has demonstrated that a certain level of regulation of behavior (self-regulation or state-regulation) is needed in order to function.

⁴ While the field of communication considers gatekeeping as a process activated while entering from the outside, the information science field mainly emphasizes the preservation of homogeneity of communities and therefore looks at the information as it exits and enters gates. Management science focuses on intermediation and looks at gatekeeping both ways.

⁵ For more information about how the *Bases* were created please refer to the dissertation Barzilai-Nahon K., 2004, *Gatekeepers and Gatekeeping Mechanisms in Networks*, Unpublished dissertation, Tel-Aviv University, Tel-Aviv.

The definition of *gatekeeping* proposed in this article relies heavily on the one proposed by Donohue, Tichenor, and Olien's (1972, p. 43), which conceptualizes *gatekeeping* as "including all form of information control" (p.43). Nevertheless, their definitions fits better to a context in which relationships between *gatekeepers* and *gated* are mostly unidirectional and dictated by the *gatekeepers*. Their definition is also constrained to the Communication field and therefore is focused on messages only. A literature review done by Barzilai-Nahon (Barzilai-Nahon, 2004) incorporated additional basic processes of information control to Donohue, Tichenore and Olien's definition such as addition, channeling, manipulation, localization, integration, disregard and deletion. This additional layer facilitates the discussion of information control in the context of networks⁶ (see Table 2 below).

Table 2: Gatekeeping Bases in a Network Context

Gatekeeping Bases	Definitions and References
Selection	Making a choice or choosing from alternatives (Donohue et al., 1972; Gieber, 1956; Lawrence & Giles, 1999; Lewin, 1951; Shoemaker et al., 2001; Singer & Gonzalez-Valez, 2003; Snider, 1967; Van Alstyne & Brynjolfsson, 2005; Wang & Benbasat, 2005; Westley & MacLean, 1957; White, 1950)
Addition	Joining or uniting information (Introna & Nissenbaum, 2000; Q. Jones, Ravid, & Rafaeli, 2004)
Withholding	Refraining from granting, giving or allowing information (Bass, 1969; Donohue et al., 1972; Introna & Nissenbaum, 2000)
Display	Presenting information in a particular visual form designed to catch the eye (Deuze, 2001; Donohue et al., 1972; Hong, Thong, & Tam, 2004)
Channeling	Conveying or directing information into or through a channel (Barabasi & Reka, 1999; Bass, 1969; Cohen, 2002; Dimitrova et al., 2003; Donohue et al., 1972; Elkin-Koren, 2001; Hargittai, 2000a, 2000b; Introna & Nissenbaum, 2000; Rogers, 2005)
Shaping	Forming, especially giving a particular form of information (Bass, 1969; Deuze, 2001; Donohue et al., 1972; Elkin-Koren, 2001; Introna & Nissenbaum, 2000; Singer, 2006; Tuchman, 1974)
Manipulation	Changing information by artful or unfair means to serve the gatekeeper's purpose (Bagdikian, 2004; Donohue et al., 1972; Elkin-Koren, 2001; Introna & Nissenbaum, 2000; Zittrain, 2006)
Repetition	Saying, showing, writing, restating; making; doing, or performing again (Donohue et al., 1972; Shoemaker, 1991)
Timing	Selecting the precise moment for beginning, doing or completing an information process (Donohue et al., 1972; Morris, 2000)
Localization (including translation)	Process of modifying and adapting information, products and services to distinct target audiences in specific locations in a way that takes into account their cultural characteristics (Barzilai-Nahon & Barzilai, 2005; Compaine, 2000; Hansen, 2002; O'Hagan & Ashworth, 2002; Schultze & Boland, 2000; Sunstein, 2001; Van Alstyne & Brynjolfsson, 2005; Zittrain & Edelman, 2002)
Integration	Forming, coordinating, or blending into a new functioning or unified whole (Bass, 1969; Compaine & Gomery, 2000; Elkin-Koren, 2001; Van Alstyne & Brynjolfsson, 2005)
Disregard	Paying no attention to information, treating it as unworthy of regard or notice (Adams, 1980; Introna & Nissenbaum, 2000; Q. Jones et al., 2004; Lawrence & Giles, 1999; Nisbett & Ross, 1980)

⁶ This is not an exhaustive list of all information control activities which exist, but an exemplification of the major ones as reviewed through the literature.

Deletion	Eliminating information especially by blotting out, cutting out, or erasing (Barzilai-Nahon & Neumann, 2005; Morris, 2000; Zittrain & Edelman, 2002)
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Gated is defined here as the entity subjected to *gatekeeping*. Being a subject to gatekeeping does not imply that the *gated* is lacking alternatives or that *gatekeeping* is forced on her. The *gated* is bounded by *gatekeeping* sometimes from her free will. Constructing a new theory of *gatekeeping* makes it possible to reflect upon missing components in relative theories, or traditional theories of the topic. So is the case with the nomenclature of *gated*, which was neglected in past *gatekeeping* theories. It does not claim that past theories did not analyze *gated*, although rarely, but asserts that the literature did not focus or gave sufficient important weight to their role. *Network Gatekeeping* suggests conceptualizing *gated* role as a crucial component when analyzing *gatekeeping*. Later in the article I will explore the second component of *Network Gatekeeping*, the salience component, which classifies different possible types of *gated* taking into account their interactions with the *gatekeeper* and stance in the environment.

Gatekeeping mechanism is being defined here as a tool, technology, or methodology used to carry out the process of *gatekeeping*. Table 3 below exhibits the bases of my definition.

The mechanism to carry out information control dictates also the interactions between *gatekeepers* and *gated*, by bounding them to a particular structure of discourse. Table 3 below demonstrates different examples of types of *gatekeeping mechanisms* that are prominent in the context of networks and information technology. While this article mainly focuses on networks created by technology (e.g., the Internet), *Network Gatekeeping* may be also applicable to other networks, such as social networks and information networks. Some of the mechanisms illustrated in Table 3 can be created without a specific regulation of a *gatekeeper*. For example, the cost-effect mechanisms can be created as a side effect to a governmental or corporation policy, without the intention to exercise information control. Such cases are out of the scope of *Network Gatekeeping*. Traditional literature generally does not differentiate between gatekeeping mechanisms and gatekeepers and defines a *gatekeeper* as either the individuals or the sets of routine procedures that determine whether items pass through the gates (Shoemaker et al., 2001). Shoemaker's observation is vague and should be refined by differentiating between the means of the process and its executor. Therefore, *Network Gatekeeping*, suggests to add the concept of *gatekeeping mechanisms*.

Table 3: Gatekeeping Mechanism Bases in a Network Context

Gatekeeping Mechanism Bases	References
Channeling mechanisms (e.g., search engines, directories, categorizations, hyperlinks)	Channeling mechanisms are gateway stations designed to attract attention of <i>gated</i> and convey or direct them into or through their channels. (Arasu, Choo, Garcial-Molina, Paepcke, & Raghavan, 2001; Birnhack & Elkin-Koren, 2003; Broder et al., 2000; Dimitrova et al., 2003;

	Elkin-Koren, 2001; Hargittai, 2000a, 2000b; Introna & Nissenbaum, 2000; Lawrence & Giles, 1999; Mowshowitz & Kawaguchi, 2002; Rogers, 2005; Zittrain & Edelman, 2002)
Censorship mechanisms (e.g., filtering, blocking, zoning, and deletion of information, users)	Censorship mechanisms are a set of means aiming towards suppressing or deleting anything considered objectionable or undesired. That is, assuring that ‘undesired’ information does not enter or exit or circulates the <i>gatekeeper</i> network. For example, blocking users from entering into a corporation email system. (Blakeney & Macmillan, 1999; Deibert, 2002; Hunter, 2000; Lessig, 2006; Marx, 1998; A. Shapiro, 1999; Wang & Benbasat, 2005; Zuboff, 1988)
Internationalization mechanisms (localization and translation)	These mechanisms cover methodologies of localizing information, services and products, according to characteristics of communities based for example on customs, cultures, nationalities, languages and religions. (Hansen, 2002; O'Hagan & Ashworth, 2002)
Security mechanisms (e.g., authentication controls, integrity controls, access controls)	Security mechanisms try to manage confidentiality, availability and integrity of information flow in the <i>gatekeeper's</i> network. (Hawkins, Yen, & Chou, 2000; Oppliger, 2002; Panko, 2003; Pfleeger, Pfleeger, & Ware, 2002; Singh, 2000)
Cost-effect mechanisms (e.g., cost of joining, cost of usage, and cost of exiting the network)	Mechanisms that control the cost of <i>gated</i> to join, use and exit a <i>gatekeeper's</i> network. The cost of joining a network refers among other things to the cost of infrastructure, connecting to infrastructure and maintaining it as controlled by the <i>gatekeeper</i> . The cost of usage includes the cost required to acquire skills to operate in the <i>gatekeeper's</i> network and its sections. Finally the cost to exit mainly focuses on the cost imposed by the <i>gatekeeper</i> , when a <i>gated</i> attempts exiting the <i>gatekeeper's</i> network. (Yochai Benkler, 2006; Brynjolfsson & Kahin, 2000; Compaine, 2000; Cooper, 2002; Hoffman & Novak, 2000a; Hudson, 2000; Q. Jones et al., 2004; Lessig, 2006; C. Shapiro & Varian, 1999; M. D. Smith, Bailey, & Brynjolfsson, 2000; Van Alstyne & Brynjolfsson, 2005)
Value-adding mechanisms (personalization, contextualization, customization, and integration of information tools)	Controlling information through providing added value products and services that increase the attractiveness of the <i>gatekeeper</i> network and its sections to <i>gated</i> . Value-adding mechanisms can serve as a lock-in mechanism to attract potential <i>gated</i> to the network or prevent <i>gated</i> from exiting it. (Amit & Zott, 2001; Hargittai, 2000a, 2000b; Kenny & Marshall, 2000; Levin & Zahavi, 2002; Porter, 2001; C. Shapiro & Varian, 1999; M. D. Smith et al., 2000; Sung-Eui & Kwangtae, 2002)
Infrastructure mechanisms (e.g., network access, technology channels, and network configuration)	Mechanisms which utilize infrastructure components and characteristics to control information and behavior of <i>gated</i> . (Brousseau, 2002; Compaine, 2000; Cooper, 2002; Hoffman & Novak, 2000b; Hudson, 2000; Nuechterlein & Weiser, 2005; Panko, 2003; Stallings, 2001)
User interaction mechanisms (e.g., add-on navigation tools)	Application which act as intermediaries between the <i>gated</i> and the network. These mechanisms reside at the interface layer. In many cases but not always <i>gated</i> are aware of their existence and play a proactive role and consent to exercise them. For example, setting a default homepage while installing a browser. (Cornfield & Rainie, 2003; A. Shapiro, 1999; Sorensen, Macklin, & Beaumont, 2001; Wasko, Faraj, & Teigland, 2004)
Editorial mechanisms (similar to traditional gatekeeping – e.g., technical controls, content controls, and design tools of information content)	Very similar to the Communication literature which explores in-depth mechanisms used by editors. These mechanisms refer mainly to editing mechanisms of content. (Detlor, Sproule, & Gupta, 2003; Deuze, 2001; Hong et al., 2004; Q. Jones et al., 2004; Kim & Benbasat, 2003; Robbins & Stylianou, 2003; M. A. Smith, 1999)
Regulation meta- mechanism (this mechanism is a meta-mechanism that	This mechanism is a meta mechanism which is applied through each one of the other mechanisms. It refers to rules, arrangements, treaties,

can apply in the area of each one of the other mechanisms above - e.g. state regulation of security, self-regulation of categorization of information)	agreements or procedures that aim to control and direct behavior through information control. (Agre, 2002; Yocai Benkler, 2000; Birnhack & Elkin-Koren, 2003; Blakeney & Macmillan, 1999; Brousseau, 2002; d'Udekem-Gevers & Pouillet, 2002; Elkin-Koren, 2001; Lessig, 2006; MacLean, 2004; Perritt, 1997; A. Shapiro, 1999; Zittrain & Edelman, 2002)
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Network gatekeeper is defined here as entity (people, organizations, or governments) that has the discretion to exercise gatekeeping through a gatekeeping mechanism in networks and can choose the extent to which to exercise it contingent upon the *gated* standing.

Table 4 below suggests a classification of *network gatekeepers* through two dimensions. First, an authority dimension that represents *gatekeepers* through the authority scope they have, from a micro to macro level of authorities. Second, a functional dimension, which reflects *gatekeepers'* roles, formal and professional designations and positions in context of the *gatekeeping* they exercise. The classification was based on diverse literature and is mainly for demonstration purposes⁷. The *functional* and *Authority* dimensions are not mutual exclusive, that is, a *gatekeeper* can be identified in multiple bases in the same time.

Table 4: Network Gatekeepers: Authority and Functional Dimensions

	Gatekeeper Bases	Clarifications and References
Authority Dimension	Government level (including types of regimes: authoritarian, democratic)	This <i>gatekeeper</i> represents governments, their institutions and branches. This role is a necessary condition to allow basic elements of states (e.g., sovereignty and legitimacy) to function. Authoritarian and democratic regimes emphasize different <i>gatekeeping mechanisms</i> . Most non-democratic regimes exercise mainly infrastructure, cost-effect and censorship mechanisms to restrict or channel access to the Internet, while the use of these mechanisms is more latent in democratic regimes. (Agre, 2002; Deibert, 2002; Kalathil & Boas, 2001; A. Shapiro, 1999; Zittrain, 2006)
	Industry regulator level (e.g., standard regulator, procedure and codex regulator)	Industry regulators refer to public or private bodies that have the power to regulate arrangements, treaties, agreements, and procedures in a certain industry and in turn aim to control and direct behavior of <i>gated</i> . Industry regulators can act independently from the state or with government collaboration. Unlike governments, which are direct regulators, industry regulators rely mainly on self-regulation gatekeeping mechanisms, for example through regulating technology or information architecture and code. (Bagdikian, 2004; Brousseau, 2002; Compaine & Gomery, 2000; d'Udekem-Gevers & Pouillet, 2002; Lessig, 2006; C. Shapiro & Varian, 1999)
	Internal authority level (e.g., institutions, organizations, social networks, and communities)	An internal setting of information control within institutions, organizations, social networks, and communities. For example, an organization applying information security internally. (Barzilai-Nahon & Barzilai, 2005; Hartman, 2001; Q. Jones et al., 2004; Oppliger, 2002; Panko, 2003; Reid, 1999; Rheingold, 2000; Wellman & Gulia, 1999)
	Individual level	This category focuses on individuals exercising their authority as <i>gatekeepers</i> : for example, parents who prevent their children from accessing inappropriate online materials; users interested in

⁷ Ibid.

		keeping their computers clean of spam and viruses (Sjoberg, 1999; Sunstein, 2006)
Functional Dimension	Infrastructure provider (e.g., Network or Internet Service Providers, Carrier Service Provider)	Entities that provide access to infrastructure in different levels. As <i>gatekeepers</i> they determine the information flow, its pace and some of its characteristics. (Yocai Benkler, 2000; Blake & Tiedrich, 1994; Nuechterlein & Weiser, 2005; M. A. Smith, 1999; Stallings, 2001; Sunstein, 2006)
	Authority site property (e.g., search providers, portal providers, content providers, virtual communities providers)	This refers to owners of authority sites. An authority site is a professional term in the data analysis field, that refers to a site that is linked to by many other sites. As the number of sites linked to a site is higher, its importance grows and its authority rank increases. Authority sites can also be viewed as high traffic sites which control traffic and information flow that passes through them. (Arasu et al., 2001; Broder et al., 2000; Cornfield & Rainie, 2003; Elkin-Koren, 2001; Hargittai, 2000a, 2000b; Introna & Nissenbaum, 2000; Q. Jones et al., 2004; Lawrence & Giles, 1999; Mowshowitz & Kawaguchi, 2002; Rheingold, 2000; Rogers, 2005; M. D. Smith et al., 2000; Wellman, Boase, & Chen, 2002; Zittrain, 2006; Zittrain & Edelman, 2002)
	Administrator (e.g., application and content moderator, network administrator)	In the virtual world, however, in addition to designated gatekeepers, individual people may decide to take the role of administrator (Berge & Collins, 2000; Morris, 2000; Rheingold, 2000; M. A. Smith, 1999)

Now that the vocabulary for the constructs of *Network Gatekeeping* has been explicated, the article will proceed to explain relationships among *gatekeepers* and between *gatekeepers* and *gated*.

3.2 DEFINING NETWORK GATEKEEPING ATTRIBUTES

The second component of *Network Gatekeeping* is *Network Gatekeeping Salience*. It is built on the bases of the *Network Identification* and utilizes this infrastructure to understand relationships among gatekeepers and between gatekeepers and gated. *Network Gatekeeping Salience*⁸ proposes identifying gated and their salience to *gatekeepers* by four attributes (1) their *political power* in relation to the *gatekeeper*; (2) their *information production ability*; (3) their *relationship* with the *gatekeeper*; and (4) their *alternatives* in the context of *gatekeeping*. At first these four attributes will be explicated. Next, an analysis of *gated* classes that result from possession of none, one, two, three or four of these attributes, giving special attention to the implications of the existence and salience of each class to *gatekeepers*, will be introduced. This paper presents a binary possession/non-possession of these attributes. This is done for purposes of clarity in a preliminary articulation of a new theory. It is important to understand that each attribute has infinite ways of reflecting it and infinite degrees of possessing it. In this paper, we will not elaborate on the gray areas of each attribute possession in order to emphasize the main types of gated. Additionally, it is important to note that although one tries to create mutually exclusive attributes, there may be cases where some multicollinearity exists due to the

⁸ Salience refers to the degree to which gatekeepers give priority to competing gated claims

theoretical proximity of the concepts. Using the construct definitions, this paper attempts to minimize this occurrence to the greatest extent possible.

POLITICAL POWER. A justification of why this construct is of importance to *Network Gatekeeping Salience* theory is straight forward, since the main core of gatekeeping is information control. Information control as a process is in many cases a reflection of the power struggle of stakeholders to achieve their political interests. One cannot do an analysis of gatekeeping without taking into account the political power of the stakeholders involved. Power is a topic that has been explored in a well established stream of research with diverse sources (Hardy & Clegg, 2006). A more positivist perspective of it is derived from the Weberian school (Weber, 1947), which approached power as the ability to get others to do what you want them to do, even if it is against their will. This concept was later carried on by Dahl, who defined power as "A has power over B to the extent that he can get B to do something that B would not otherwise do" (Dahl, 1957, p. 80). This school of thought, also known as pluralism, focuses mainly on outcomes and exposes conflict when "one can conceive of 'power' – 'influence' and 'control' as serviceable synonyms... This can be envisaged most easily in decision-making situation" (Polsby, 1963, pp. 3-4). This approach well reflects the way scholars address power questions. To pluralists, interests are understood as policy preferences and therefore should be investigated through decision-making outcomes.

Bachrach and Baratz (1962, 1963, 1970) claimed that the above schools of thought were just a one dimensional view of power. They proposed that one should also look into the 'second face of power' which is exercised when "A devotes his energies to creating or reinforcing social and political values and institutional practices that limit the scope of the political process to public consideration of only those issues which are comparatively innocuous to A" (Bachrach & Baratz, 1970, p. 7). A satisfactory analysis of power, then, involves examining both decisions as a choice among alternative modes of action (like the pluralist school) and non-decisions as "a decision that results in suppression or thwarting of a latent or manifest challenge to the values or interests of the decision-maker" (Bachrach & Baratz, 1970, p. 44). Their theory incorporates into the analysis of power the question of control over the political agenda and the ways in which potential issues are kept out of the political process (Lukes, 2005). Both the first and the second dimensions of power have a significant feature in common - they are positivist schools that put the weight on actual, observable conflict, which may be overt or covert.

Lukes (2005) suggests incorporating a *Third-Dimensional View* of power into the analysis of power. He argues that "Decisions are choices consciously and intentionally made by individuals between alternatives,

whereas the bias of the system can be mobilized, recreated and reinforced in ways that are neither consciously chosen nor the intended result of particular individuals' choices" (Lukes, 2005, p. 25). These arguments are also raised by other scholars (Foucault, 1978 [1975], 1980; Gramsci, 1971 [1926-37]). Moreover Lukes suggests looking not only at individuals but also at group and communities as the source of bias to a system. For Lukes "A exercises power over B when A affects B in a manner contrary to B's interests" (Lukes, 2005, p. 37). Therefore, Lukes suggests looking at power manifestation not only through decisions and actions but also through *inactions* that aim at shaping and influencing one's preferences and awareness (latent or observable).

INFORMATION PRODUCTION. Traditional literature of information science, management and communication emphasize mainly the ability of elites (e.g., mass media and governments) or individual *gatekeepers* to produce information (Bagdikian, 2004; Metoyer-Duran, 1993; Shumsky & Pinker, 2003a). New conceptual frameworks emphasize changes occurring as part of the information society which enable *gated* to produce information (Yochai Benkler, 2006; Lessig, 2006; C. Shapiro & Varian, 1999; Sunstein, 2006). Benkler (2006) suggests that information production derives from a mixture of "(1) nonmarket sources – both state and nonstate – and (2) market actors whose business models do not depend on the regulatory framework of intellectual properties" (p.39) and stresses the importance of its role when there is a need to assess *gated* salience: "the known quirky characteristics of information and knowledge as production goods have always given nonmarket production a much greater role in this production system than was common in capitalist economies for tangible goods" (p.37).

The appearance of multiple methods and technologies, that are ready-to-use and easy-to-use tools to produce and design content empower the *gated* with greater autonomy, and change the interplay of *gatekeeper-gated*. Additionally, the low cost of producing information and the easiness of its reach-out gives *information production* ability an important role as an attribute in *Network Gatekeeping Salience* Theory. At the same time, despite new opportunities for the *gated* to create self-expression in online networks, the network itself is not entirely as open and democratic as it may appear. Studies show that the attention of Internet users is concentrated on a very small number of providers (content and infrastructure) (Barzilai-Nahon, 2004). For example, around 85-90% of users will use four search-engines. Therefore, although content is apparently easy to produce, some political, economical and social impediments exist for the *gated* to reach other users. Moreover, in many cases the *gated* use platforms which are created by *gatekeepers* and are dependent on the *gatekeepers'* design and policy. This is why the availability of alternatives to gatekeeping (discussed below through the *alternatives* attribute) plays a very significant role along side *Information Production* in *Network Gatekeeping*

Saliency Theory. The ability of the *gated* to produce information does not necessarily ensure information will reach other people. Information production is merely a prerequisite for information transfer. Moreover, this construct (i.e., *information production*) is important as a disintegrator between information and power. The ability to produce information may produce power but is not synonymous to power, and therefore a separation of these constructs (*Political Power* and *Information Production*) is important.

RELATIONSHIP. Viewing political power as an independent variable in *gated-gatekeeper* relationships promotes us further toward a theory of *Network Gatekeeping Saliency*, but it does not capture the dynamics of *gated-gatekeeper* interactions. Therefore, I propose looking at another variable – *relationship*. Scholars refer to relationships in various contexts such as: reciprocity (Plickert, Wellman, & Cote, 2005); exchange (C. Jones, Hesterly, & Borgatti, 1997; Markovsky, Willer, & Patton, 1988); communication metaphors (Putnam, Phillips, & Chapman, 1996); or stakeholder analysis of ties (Rowley, 1997). Relationships can be researched in various directions: Plickert et. al (Plickert et al., 2005) argue that reciprocity varies in content, specificity, immediacy, directionality and tie or network focus. Jones et. al. (C. Jones et al., 1997) focus on *frequency* which concerns how often specific parties exchange with one another. Inkpen and Tsang argue for the importance of repeated and enduring exchange of relationships (Inkpen & Tsang, 2005). While most of the literature emphasize positive relations as a foundation for creating social capital or alliances (Inkpen & Tsang, 2005; C. Jones et al., 1997; Podoiny & Baron, 1997), Labianca and Brass analyze the meaning of negative relationships (Labianca & Brass, 2006).

Putnam et al. (1996) analyze seven metaphors of communication: conduit, lens, linkage, performance, symbol, voice, discourse. For purposes of the theory of *Network Gatekeeping Saliency*, I will focus mainly on the 'linkage metaphor' proposed by Putnam, projecting on the *direct* connection between the *gated* and the *gatekeeper* and emphasizing the *enduring* relational facet. The existence of a direct connection and its endurance play a major role by creating a venue for negotiation of stances between the *gated* and *the gatekeeper*. This variable changes dynamically as response to events. Having a direct exchange enables the *gated* to change their political power, or the nature of relations with the *gatekeeper*, and respectively requires attention from *gatekeepers*. Finally, it is important to note a connection between *Information Production* and *Relationship*. The given ability of the *gated* to produce information creates a circulatory affect between *gated-gatekeeper*. The *gated* produce information taking into consideration reactions and feedbacks from *gatekeepers* and other stakeholders. At the same time *gatekeepers* are affected by the information produced and in effect

change their stances. This may happen over and over again, creating an interesting circulatory exchange of information between the *gated* and *gatekeeper*.

ALTERNATIVES. Benkler (2006) claims that the emergence of the networked information economy increased individual autonomy by increasing "the range and diversity of things that individuals can do for and by themselves" and by providing "nonproprietary alternative sources of communication capacity and information, alongside the proprietary platforms of mediated communications" (p.133). Nevertheless, this growing autonomy in many cases is not translated into more freedoms or power due to users self-regulation of themselves (Sunstein, 2001), or strong control by the *gatekeepers* that makes the transformation from one *gatekeeper to another* an impossible mission. Therefore I suggest differentiating between the legal or social rights that one has in choosing, and between the *de facto* limited with non-alternatives one has. The fourth attribute, *alternatives*, is suggested to allow for a more comprehensive look at *gated-gatekeeper* relations. One cannot fully understand this relationship and analyze control of information without understanding the practical alternatives available to the *gated* at a certain point, if any. As emphasized above, the ability of the *gated* to produce information does not necessarily ensure that information will reach other people. Gated autonomy in many cases is contingent upon the *gatekeeper* rules and technologies provided.

The constructs as discussed above reflect the concept, but to be able to suggest relationships there is a need to offer operationalized definitions to these constructs (attributes) that can later be tested empirically. Table 5 summarizes the above discussion of the four key constructs, and offers suggestions for how to reflect on each construct in a more tangible way.

Table 5: Key Constructs and Attributes to Develop Network Gatekeeping Salience

CONSTRUCT	DEFINITION (ATTRIBUTE)	SOURCES
POLITICAL POWER	First Dimension – A relationship among social actors in which one social actor, A, can get another social actor B to do something that B would not have otherwise done. Second Dimension – Incorporating decisions that result in suppression or thwarting of a latent or manifest challenge to the values or interests of the decision-maker (e.g. through control of agenda) Third Dimension – incorporating inactions that aim at shaping and influencing one's preferences and awareness	(Bachrach & Baratz, 1962; Dahl, 1957; Lukes, 2005)
INFORMATION PRODUCTION	The act or process of producing content in any multimedia mode within a network	(Yochai Benkler, 2006)
RELATIONSHIP	<i>The degree and effect of a direct, reciprocal and enduring connection between the gated and the gatekeeper</i>	(Plickert et al., 2005; Putnam et al., 1996)
ALTERNATIVES	An opportunity for deciding between two or more courses or propositions	Definition taken from Merriam-Webster dictionary

4. NETWORK GATEKEEPING SALIENCE THEORY

4.1 GATED CLASSES

Up to this point, I have put forward the foundation of a *Network Gatekeeping* theory. I claim that *gated* may be identified based upon the possession of attributes for one, two, three or all four of the constructs: political power, information production, relationship, and alternatives. Next the paper identifies types of *gated* that result from the various combinations of these attributes, as shown in table 6. *Network Gatekeeping* supports a dynamic theory of gatekeeping and therefore one needs to consider the following: First, each attribute is a variable, not a steady state, and can change for any particular relationship among gatekeepers or during gatekeeper-gated relationships. Second, the existence of each attribute and its degree of presence is a matter of a constructed reality rather than an 'objective' one. As Table 6 illustrates, Tier 0 represents *gated* who do not possess any attribute, identified as *Traditional Gated*. All others types of *gated* will reflect different stances of *Network Gatekeeping*. *Dormant Gated* (Tier I), are those possessing only one of the four attributes. *Potential Gated* (Tier II), are those possessing two attributes. *Bounded Gated* (Tier III), are those possessing three attributes, and finally *Challenging Gated* (Tier IV) represent *gated* who possess all the four attributes. Below each one of these tiers will be analyzed and with a focus on the uniqueness of each tier and class. Accordingly, *Network Gatekeeping* proposes the following proposition:

Proposition 1: *Gated salience will be positively related to the cumulative number of attributes – political power, relationship, information production and alternatives – perceived by gatekeepers to be present.*

Table 6: Gated Typology

	P	I	R	A	TIER	TYPE OF CLASS
0					Tier 0 - Traditional Gated No possession of attributes	Traditional Gated
1			X		Tier I – Dormant Gated possession of one attribute	Captive audience
2		X				Lost voice
3				X		Vagabond reader
4	X					Squanderer Gated
5		X	X		Tier II – Potential Gated possession of two attributes	Exploited apprentice
6			X	X		Demanding user
7	X		X			Potential change agent
8		X		X		Illusive apprentice
9	X	X				Empowered Gated
10	X			X		Vagabond user
11		X	X	X	Tier III – Bounded gated possession of three attributes	Frustrated Gated
12	X		X	X		Influence Bounded Gated
13	X	X	X			Choice Bounded Gated
14	X	X		X		Threatening Gated
15	X	X	X	X	Tier IV – Challenging Gated possession of four attributes	Challenging Gated

P – Political power; I – Information production; R – Relationship; A – alternatives

4.2 TIER 0: TRADITIONAL GATED

A *Gated* with no political power; no alternatives to circumvent *gatekeeper* control or have freedom of choice; no ability to produce information; and no relationship with the *gatekeeper* is similar to the traditional contemplation of gatekeeping. According to the traditional concept of *gatekeeping* the main stakeholders were conceived as holders of sender-receiver roles. Gatekeepers (e.g., editors, gatherers, cultural gatekeepers) were conceived as *senders* and the *gated* (e.g., newspaper readers, community members) played the role of the *receiver*. Sending and receiving information may change according to the context: news, cultural habits, technological developments and more. Traditional literature conceives of the gatekeeper as responsible for editing, translating, producing and distributing these information items.

Consistent with the notion of *sender-receiver*, traditional literature treats information that passes from sender to receiver as having a source-destination direction. The source is presumed to be the origination point of the information when it departs toward the end-user, passing gatekeepers along the way. In some cases the source is presumed to be produced by the gatekeepers themselves. The information that reaches the gated is presumed to be the destination.

In the context of networks, these traditional notions are usually fallacious. Information in many cases is produced by the gated and can serve as a source. Even when gatekeepers produce information aimed at certain *gated*, it can later be distributed and altered by *gated* along the information flow path. Hence, the traditional notion of *source-destination* is only one among many others to understand information flow and information control on the Internet or in information networks. Furthermore, according to the traditional literature, *gatekeepers* were the only stakeholders who created and produced information; the *gated* were not considered to be capable of producing and creating information unreservedly. Thus, the gated only rarely creates information without depending on control and authorization from the gatekeeper. For example, a newspaper reader who aspires to react to an article may do so only by means of a specific column reserved for readers' responses, and the editor must approve it for publication. Another example is of community members who may further distribute cultural information which is originally created and disseminated exclusively by the gatekeepers as agents of acculturation. Still, according to the traditional concept, presented here as Tier 0, the main control of the agenda and core values of the community are exercised and planned by the gatekeepers, where the gated are mainly executors or implementers.

4.3 TIER I: DORMANT GATED

The first tier of *Network Gatekeeping* consists of the *Dormant Gated*, those who possess only one attribute. This tier is characterized by rather strong information control of *gatekeepers* over the *gated*.

Proposition 1a: *Gated salience will be low where only one of the gated attributes – political power, relationship, information production, and alternatives – is perceived by gatekeepers to be present.*

CAPTIVE AUDIENCE. *Gated associated with the type, Captive Audience*, possess the relevant attribute of *relationship*. Such a *gated* does not have any capabilities or intentions to produce information aimed to the public, has no political power and no alternatives. Nevertheless, there is a communication channel and a discourse with the *gatekeeper*, making the traditional relationship of *sender-receiver* appear inappropriate because these roles of *sender-receiver* are repeatedly exchanged between the gatekeepers and the *gated*. Also, traditional frameworks which emphasize the gatekeeper-*gated* relationship as uni-directional due to the limited ability of the *gated* to offer feedback or reciprocation for information sent by gatekeepers do not fit the Captive Audience type. In this class, the *gated* is stimulated by gatekeepers to interact and provide feedback, and is provided with the ability to do so (e.g. through certain feedback systems). This relationship requires an information exchange between the *gated* and *gatekeeper* but is limited to the rules and agenda set by the political process and framework given and decided upon by the *gatekeeper*. The *gated* is a *captive audience* since they have no political power of bargaining to assure that reciprocity with *gatekeepers* will yield outcomes that will serve the *gated* interests. On the other hand, they do not have or cannot choose other alternatives to *gatekeepers*. This type of *gated* is mainly passive due to the limited freedom of choice (either when regulated externally, or as part of his/her choice of self-regulation) and is being managed by the *gatekeepers* preferences and interests.

LOST VOICE. This type of *gated* should be of interest to all stakeholders. *Gated of the Lost Voice* class are aware of and utilize their ability to produce information, but their access to other stakeholders is totally dependent on the *gatekeeper*. *Gatekeepers* (one or more) provide the infrastructure (e.g., easy-to-use blog software for creating and designing websites) and therefore the gatekeepers control the boundaries in within which the *gated* operate. Such *gated* do not have alternatives for several reasons: a mechanism or technology that can provide them with an alternative does not yet exist, which implies in this case that the *gatekeeper* has a monopoly on the infrastructure of the interaction. Another reason for the lack of alternatives might be due to the cost of learning and maintenance, for instance, the cost of switching mechanisms, technologies or platforms for a user that has already put a lot of resources like time, effort and money into one *gatekeeper* by producing information is not low, even when there are other alternatives. Additionally, the cost of *habitus* may evidently

be even stronger, as social networks infrastructure bundle the *gated* by creating a communal context and therefore further constrain his/her exit capability. Users in this class prefer to stay under the protection of that *gatekeeper* and instead focus on producing information for the community good, or as a mechanism of self-expression. This class of *gated* may be a catalyst to achieving *Network Gatekeepers* goals, since gatekeepers acquire some of their political power and reputation via their ability to attract many users, create volumes of information traffic, and show their ability to manage these assets. An example of this would be a content provider such as YouTube which empowers users to upload and create information on its site. The user may not have knowledge of other alternatives, or the cost of switching would be so high that a practical alternative would not be an option.

VAGABOND READER. Different from other tier I types of *gated*, this *gated* is an illusive stakeholder for *gatekeepers*. The *gated* are aware of their alternatives and may exchange one gatekeeper with another according to their preferences. Since this *gated* does not produce information, it is a *vagabond reader* to whom the *gatekeeper* needs to supply contextual information, and create incentives or constraints to bundle the *gated* within the *gatekeeper* virtual boundaries. Interestingly, empirical studies show that attention of users, and more specifically of *gated*, is concentrated on a small number of gatekeepers from each type (see Table 4) over a long period of time. For example, concentration of attention is a reality in the realm of search providers: around 90% of search engine users search one of four major engines. The same phenomenon of monopolization of gatekeeping by a few entities is present in other types of gatekeepers as well (Barzilai-Nahon, 2004). Although the scope of existing alternatives for the *gated* has widened on the Internet, the circumvention of information control is not always possible in networks because of the many gatekeeping mechanisms used by the same gatekeeper (see Table 3). Another deterministic claim put forward by the elitist paradigm (Bagdikian, 2004) argues that even when *gated* have freedom of choice or ability to circumvent gatekeeping, the impact of such an alternative is minimal. Choosing an alternative to a gatekeeper is still contingent upon cultural, political, and social context similar to those of the original gatekeeper and thus choosing an alternative is tantamount to substituting one gatekeeper with another with similar characteristics. Nevertheless, alternative platforms to those controlled by gatekeepers and largely enabled by information systems are not without significance, even if they only exist to a limited degree.

SQUANDERER GATED. This is a *gated* that has political power. Sources of political power are usually external to the network context, but either have not yet been exercised by the *gated* or they are not conscious of it in the context of networks. The squanderer is typical of a dormant *gated*, without the knowledge or skills to

exercise power in a network context. A squanderers lack of awareness of the medium and its opportunities and challenges, or lack of technical skills, cause other attributes (information production, alternatives and relationship) to be irrelevant to the discussion. These *gated* are faithful to *gatekeepers* and trust them to represent them and culturally translate their needs to a network context. Examples of such *gated* could be public figures who rely on specific technological *gatekeepers* to represent them and translate their identity to the network society.

4.4 TIER II: POTENTIAL GATED

This tier represents *gated* who possess two attributes.

Proposition 1b: Gated salience will be moderate where two of the four gated attributes – political power, relationship, information production, and alternatives – are perceived by gatekeepers to be present.

This class of *gated* is interesting, as they are no longer *dormant gated*, but on the other hand have not yet fully materialized their potential to possess all the four attributes.

EXPLOITED APPRENTICE. Having the ability to produce information with an exchange of information with the *gatekeeper*, but a lack of alternatives or political power places the *gated* in a position for potential exploitation by the *gatekeeper*. In this case, the relationship is used to convey the *gatekeeper's* needs and preferences, and for purposes of channeling the *gated* content creation and distribution according to the *gatekeeper* agenda. This is a classical manifestation of the second dimension of power, where the *gatekeeper* uses the reciprocity and enduring relations with the *gated* in order to set a political agenda according to his/her preferences, and raising issues which are confined to the safe issues of the *gatekeeper*. For survival, *Gatekeepers* need to demonstrate continuous information production to competitors, society and individuals, and this is one way to do so. An example of this could be a content provider that allows a number of writers to expose their content on his/her infrastructure. Writing on that *gatekeeper* infrastructure is accompanied with self-regulation of the *gatekeeper* - codes of behavior and writing which may sometimes include restriction of topics and issues.

DEMANDING USER. A *gated* with alternatives and a channel of communication and exchange with *gatekeepers* has opportunity to convey its preferences, needs and demands to the *gatekeeper*. It is a potential threat but not yet a threat. This *gated* has neither political power nor produces information, so his/her only bargaining-power derives from the ability to move from one *gatekeeper* to another. In order to fulfill this potential threat the *gated* needs to gather a community, a critical mass of many *gated* that will materialize the threat to move to another *gatekeeper*. Acquiring critical mass will give this *gated* political power and the ability to be more influential on *gatekeepers*. Nevertheless, even without gathering a critical mass on behalf of the

gated, this is a sensitive situation to the *gatekeeper* due to the temporariness of the situation, in particular if the *gatekeeper* is not a dominant one. A dynamic that enforces the *gatekeeper* to understand and reciprocate to the *gated* needs may rise, which may later lead the *gatekeeper* to a change of attitudes.

POTENTIAL CHANGE AGENT – When the *gated* has political power and reciprocal, enduring and direct exchange with the *gatekeeper*, conditions for potential change occur. Like the previous type, *Demanding User*, the *gated* can convey its needs and demands through exchange of communication. In contrast to the *Demanding User* type of *gated* who need a critical mass of support to enforce responsiveness on behalf of the *gatekeeper*, the political power of the *potential change agent* may do the work and request *gatekeeper* attention. This attention may yield changes in intentions, and later changes of behavior, although no alternatives exist for this class of *gated*.

ILLUSIVE APPRENTICE – This type does not have relationships with the *gatekeeper*. With no communication channel and exchange between the stakeholders, no negotiation is being held. Therefore, *gatekeepers* cannot directly exploit *gated* content production through channeling and designing information topics and agendas. Control is manifested here in an indirect way by regulating behavior, setting rules, and providing the platform for the *gated* (e.g., confining writers to write short essays on the *gatekeeper* virtual platform). These *gated* are not just passive readers who may have alternatives elsewhere, they also produce content. Although they have alternatives, the cost of switching may appear higher than can be afforded. Nevertheless, the possibility and existence of alternatives that suits the *gated* needs, along with the ability to produce information increase the *gated* bargaining position. *Gated* will move on from one *gatekeeper* to another until an appropriate network and technology suitable to their needs will be found. If such a *gatekeeper* that satisfies the needs of the *gated* is found, they will benefit from a collaborative contribution of content. For *gatekeepers*, this class of *gated* is hard to get under their wings of management, and gatekeeping is mainly indirect.

EMPOWERED GATED – This class represents one that possesses the attributes of political power with the ability to produce information, but does not have alternatives to producing the information elsewhere, and does not have a relationship with the *gatekeeper*. *Gated* are empowered because of their ability to produce information, reach out to other users and potentially influence others (the third dimension of power), which makes their political power even stronger. *Gatekeepers* may enjoy their role as facilitators and providers of skills and abilities, a phenomenon similar to the one mentioned in management literature that conceptualizes *gatekeepers* as intermediaries. *Gatekeepers* gain powerful users who cannot threaten to switch to other

alternatives. Consequentially, this contributes to the *gatekeeper's* political power in respect to other competitor *gatekeepers*. For example, studies demonstrate that providers of virtual communities are dependent on the volume of users who produce information as a source of revenues (Barzilai-Nahon, 2006).

VAGABOND USER - Changes in political power among *gatekeepers* are complex. Information systems and networks provide *gatekeepers* with more mechanisms to exercise their power compared to traditional gatekeeping, (see Table 3), but at the same time provide the *gated* with more possibilities to circumvent gatekeeping. Notwithstanding, with this increasing freedom and ability to circumvent gatekeeping, the attention of the *gated* becomes more centralized and dependent on a few sources of power, making gatekeeping even more important for users' activities on networks. The *Vagabond User* has political power and alternatives, so *gatekeepers* cannot rely on *their gatekeeping mechanisms* to lock-in this type of user under their boundaries of control. However, this class of users does not produce information – possibly due to a lack of technical skills or lack of will to produce content. Therefore, these *gated* are dependent on *gatekeepers* to represent their preferences although no direct interaction is made with them. An example of such a class can be web-campaigning: politicians who like to have their campaign online and have many alternatives. They will not produce the information themselves, and usually will not have a direct enduring communication with the *technology gatekeepers*.

4.5 TIER III: BOUNDED GATED

This tier represents *gated* who possess three attributes.

Proposition 1c: *Gated salience will be high where three of the four gated attributes – political power, relationship, information production, and alternatives – are perceived by gatekeepers to be present.*

These *gated* classes undermine the foundations of traditional *gatekeeping* by positioning themselves as actors who deserve high attention from *gatekeepers*. *Gated* in this tier are bounded, with each type bounded by a different attribute resulting in different levels of interactions with the *gatekeeper* sometimes not balanced.

FRUSTRATED GATED. The multifaceted balance between *gatekeepers* and *gated* is well articulated through this type. These *gated* only lack *political power*. Owning vast resources, *gatekeepers* are more likely than *gated* to create and produce most of the content resulting in a greater impact on society. Although *gated* can create and produce information independently without having to pass through a content *gatekeeper*, the visibility and impact of their work is usually limited. The limited degree of visibility and impact is relative to the information disseminated by *gatekeepers* who control the major portion of audience attention. Moreover,

even if independent from content *gatekeepers*, the *gated* are still dependent on other types of *gatekeepers* (see Table 4) such as infrastructure providers, and government or industry regulators.

Yet, *gated* can gain more political power via the ability to set public discourse and agenda (second dimension of power) and influence decision-making directly (first dimension of power), potentially making their impact greater. Their information platforms and content alone can lead to an impact on other users and decision-makers by influencing preferences and awareness (third dimension of power), and empowering them by giving *gatekeepers* more choices.

The mass production of information and power rely on information produced by individuals, not necessarily employees of the *gatekeeper*. *Gatekeepers* rely on *gated* ability to produce information, as well as their participation and involvement in networks, and are also aware of the ability of the *gated* to switch patrons if needed. Therefore, there is a sensitive balance in trying to satisfy *gated* needs to ensure they will stay in the boundaries of control of the *gatekeeper* and promote *gatekeepers* goals at the same time. This enforces *gatekeepers* to fulfill a more active role of guardian/protector and ensures that their social networks or platforms are operational and satisfy all constituencies. See, for example, the proceedings of MySpace (a social network website) to protect the virtual communities of minors. Minors, a major portion of MySpace, are also the main production force of content. Public criticism coming from parents and other stakeholders raised the issue of online social networks serving as venues for online sexual predators. In response, MySpace took on a protective *gatekeeping role* by self-regulating content and creating rules. This provided virtual community members with a sense of protection and safety, removing the need for members to seek alternatives to MySpace.

INFLUENCE BOUNDED GATED. Having political power, alternatives and an enduring reciprocity with *gatekeepers* but not the information production attribute is an impairment of *influence-bounded gated*. *Gated* can exercise their power through their relationships with *gatekeepers*, for example, by setting the political agenda to encompass certain issues that the *gated* would like to promote (second dimension of power). However, their ability to influence preferences, awareness, and attitudes is limited by the lack of information production. The non-production is not necessarily attributed to an inability or lack of technical skills, but may sometimes encapsulate other obstacles such as lack of awareness, lack of desire by *gated*, or non-action due to pressure coming from the communal, social and even legal context to produce information. Although alternatives exist, such *gated* are mainly readers and listeners and therefore passive in their contribution and creation of social capital and norms. Their main focus is on channeling interests of the *gatekeeper*.

CHOICE BOUNDED GATED. Having the right to choose among alternatives does not imply having an alternative. Interestingly, in many cases, constraints to alternatives are not external, but embedded within ourselves, a notion that can be described as the *information paradox*. As part of the opportunities of the information society we are given many choices, but as a result of self-regulation we prefer to limit ourselves to culturally known or similar information. The choices are then limited to no practical alternatives. The digital divide is also an issue when trying to understand the *alternatives* attribute. Most of the content and applications on the internet originate in English, with some localized but a larger portion being external to what is culturally known or familiar to non-English speakers. This gap makes it harder for non-English speakers to participate in the discourse, leaving them in many cases with no alternatives but for a few local *gatekeepers*. *Gatekeepers* should pay careful attention to this type of *gated* if constraints are merely technological. The rapid development of technology requires continued monitoring of the availability of alternatives provided to the *gated*.

THREATENING GATED. This class of *gated* possess three attributes: political power, alternatives and information production. The lack of reciprocal communication channels between the *gated* and the *gatekeeper* make it impossible for both sides to convey their preferences and needs, and to start the discourse or negotiations necessary to balance expectations. This type of *gated* is a threat to *gatekeepers* due to its ability to switch over to other *gatekeepers*. In addition, *gatekeepers* only have an indirect ability to influence the *gated*. The control is made indirectly through regulation and infrastructure mechanisms.

4.6 TIER IV: CHALLENGING GATED

The *gated* in this tier possess all four attributes.

Proposition 1d: Gated salience will be very high where all four gated attributes – political power, relationship, information production, and alternatives – are perceived by gatekeepers to be present.

This class represents a fully networked gatekeeping stance where all stakeholders (i.e., *gatekeepers* and *gated*) epitomize their resources and capabilities. The bargaining power of the *gated* under this class is the highest. At the same time, control of information by *gatekeepers* is expressed through having a large variety of mechanisms to exercise this control (see Table 3).

The *challenging gated* creates a new situation in which *gatekeepers* need to question their role as *gatekeepers*. Information, and the technology that carries it, are no longer artifacts, but become spaces in which politics of information plays a major role. This stance challenges the hegemony of control of *gatekeepers* and is temporary due to its inherent instability and few modes that may evolve from it. Hence, (i) the *gated* may take

advantage of this stance to transform themselves into *gatekeeper* roles in other contexts; (ii) to promote its interests, the *gated* may collaborate with the *gatekeeper* and may serve as a very significant role to make the powerful *gatekeepers* even more powerful. For example, Barabasi & Reka (1999) demonstrated that the distribution of links into and out of nodes on the network follows a power law. New websites prefer linking to already well-attached websites, allowing the powerful to get more powerful. This alliance will stay stable as long as *gatekeeper* and *gated* interests are not in conflict. (iii) the *gated* adapts to the discourse, process and rules of control of the *gatekeeper*, and cooperate according to *gatekeeper* influence and interests; (iv) a continuation of the power struggle between the *gated* and the *gatekeeper*, who has a certain advantage over the *gated*. In most cases the *gatekeeper* will set the agenda; control the boundaries of the discourse and therefore the available actions for other stakeholders; control the process; and control gatekeeping mechanisms that may constrain abilities and actions of the *gated*.

Here, a theoretical quandary should be raised – if the *gated* possess all four attributes (i.e., political power, alternatives, information production and relationships), are they still *gated*? Or would that make them *gatekeepers*? This is an important distinction of roles, which needs to be put forward in the *Network Gatekeeping Salience Theory*. The possible transformation of the *gated* into a *gatekeeper* is not achieved through a possession of certain attributes. It is the capability of the *gated* to perform an act of information control, the capability to carry out this control, and the context surrounding that makes one a *gatekeeper*. Being a powerful entity does not, necessarily, makes you a *gatekeeper*. Additionally, a *gatekeeper* can possess only some attributes, but it is the discretion to exercise *gatekeeping* along with the context that turns him/her into a *gatekeeper*. Certainly, affiliation with powerful circles or elites increases ones' chances to play the role of a *gatekeeper*. Nevertheless, one of the contributions of *Network Gatekeeping Salience Theory* is the understanding of the dynamism of interactions that involve information control. *Gatekeeping* is a dynamic state which is contingent upon the social context it evolves from.

There is certainly a preference to think of powerful organizations or certain entities as 'eternal' *gatekeepers*. The proposed theory takes a dynamic approach and claims that even these potential *gatekeepers* serve as *gated* in certain circumstances and during interactions with other stakeholders. Most actors switch roles from *gatekeepers* to *gated* interchangeably and seldom can we point to an entity and regard it as an eternal *gatekeeper*. Therefore, even if one has the discretion to control information, it is the context that determines his/her role. Hence, to identify *gatekeeping* it is important to identify the boundaries of the network as part of

the context; who is responsible for these boundaries and who manages the rules of the game and the discourse in this network.

5. A DISCUSSION OF DYNAMIC GATEKEEPING

In the analysis I have proposed that *gated* possess some combination of four critical attributes (1) their *political power* in relation to the *gatekeeper*; (2) their *information production ability*; (3) their *relationship* with the *gatekeeper*; and (4) their *alternatives* in the context of *gatekeeping*. *Network Gatekeeping* predicts that salience of a particular *gated* to *gatekeepers* is correlated to the possession of these attributes, that is, low if one attribute is present, moderate if two attributes are present, high if three attributes are present and very high if all four attributes are present. *Dormant Gated* can increase their salience to *gatekeepers* and move into other tiers by acquiring other missing attributes.

While static maps of *gatekeepers* are heuristically useful if the intent is to raise consciousness about "who or what really counts" or to specify a stakeholder configuration at a particular context and time, one should remember that this is a simplification of reality. Therefore, *Network Gatekeeping* champions a dynamic notion as part of it. *Gatekeepers* and *Gated* are not monolithic social and political entities, nor is their behavior in context of their stakeholders. Accordingly, in a dynamic environment the interests and goals of the stakeholders constantly change and so do their *gatekeeping* and *gated* roles. Additionally, their political behavior is variably positioned according to these different contexts. *Gated* change their salience, requiring different degrees and types of attention from the *gatekeeper* depending on their attributed possession of relationship with the gatekeeper; information production; alternatives the gated might have in context of gatekeeping; and the political power of the gated in relation to the gatekeeper.

A good example of dynamism of gatekeeping theory can be seen in the story of Wikipedia. The Internet and later Web 2.0 technologies such as Wikipedia caused many to doubt the traditional conceptualization of power and information relations, suggesting gatekeeping as an obsolete term. Wikipedia was initially brought into the world as a *Dormant Gated (Vagabond Reader)* to create an *alternative* to the proprietary control of information from encyclopedia content providers. Later, by providing users with the ability to produce information and create an alternative to the traditional gatekeepers, they transformed into being *Potential Gated (Illusive Apprentice)*. Alongside rising criticism about the quality of information being produced, the Wikipedia platform gave rise to another missing attribute, political power, allowing the gated to move into the tier of *Bounded Gated (Threatening Gated)*. The dream of a bottom-up, collaborative, neutral technology to enable fuzziness in traditional power interrelations between designers and users appeared to be

problematic in Wikipedia. Effectively, 80% of the articles in *Wikipedia* are written by 10% of its volunteering editors transforming Wikipedia to be a *gatekeeper* by itself (1999; Giles, 2005).

6. SUMMARY AND CONCLUSIONS: THE FUTURE OF GATEKEEPING RESEARCH WITHIN THE INFORMATION SCIENCE CONTEXT

This article formulates a *Network Gatekeeping* theory that provides an interdisciplinary foundation for the development of other theories and additional hypotheses that deal with information control in the context of networks. It provides definitions of gatekeeping constructs suited for networks and within an information context. Finally, a *Network Gatekeeping Salience* theory is proposed, which addresses stakeholders' relations through four attributes of the *gated*: information production, relationship of *gated-gatekeeper*, political power, and alternatives to the *gatekeeper*. The theory also emphasizes the dynamism of information control that is contingent upon the context. It provides opportunities for analyzing and explaining gatekeeping through an understanding of political and social relationships. Consequently, this theory enables researchers to address the commonalities of various gatekeeping phenomena, develop constructs, and formulate relationships among these phenomena and constructs. Gatekeeping theory holds the key to a more useful, in-depth and comprehensive theory of information control in society. Table 7 below summarizes the main foundations of *Network Gatekeeping* discussed in this article, and compares them to past *gatekeeping* theories, illuminating the differences in focus of research of scholars.

Table 7: Comparing Traditional Theories of Gatekeeping with Network Gatekeeping

		Traditional Gatekeeping	Network Gatekeeping
Network Gatekeeping Identification	Gate <i>(the passage point)</i>	One-to-few number and types of gates	Few-to-many number and types of gates
	Gatekeeping <i>(the process)</i>	Primarily a process of: Selection (communication); Intermediation (management); Dissemination and preservation of culture (info. Science).	A more inclusive definition which encompasses any process of information control (Table 1).
	Gated <i>(on whom gatekeeping is exercised)</i>	No vocabulary in the literature	Network Gatekeeping Identification recognizes the role of those subjected to gatekeeping. Network Gatekeeping Salience presents the dynamism of gated types (Table 6).
	Gatekeeping mechanism <i>(the means used to carry out gatekeeping)</i>	Mainly editorial mechanisms	Many mechanisms to execute gatekeeping (Table 3 exhibit some)
		Primarily a manual process	Due to information volume procedures become more automated
Gatekeeper <i>(who performs gatekeeping)</i>	Individuals	Focus shifts to institutional actors. Two dimensions are suggested: authority and functional gatekeepers (Table 4)	

Network Gatekeeping Salience	Relationship (<i>gated-gatekeeper</i>)	Relations of sender-receiver. The gatekeeper is the sender.	Continuity modes of relationships between no relations or indirect relations (sender-receiver mode) and through frequent, enduring, and direct exchange.
	Information Production (<i>of gated</i>)	Notion of source-destination. The gatekeeper is the source.	Association between source-destination and gatekeeper-gated positions are interchangeable.
		Only gatekeepers produce information freely.	Gated may also produce information.
	Alternatives (<i>for gated</i>)	Scant-none alternatives to gatekeeping	Possible circumventions of gatekeepers and gatekeeping mechanisms exist.
	Political Power (<i>in relation to the gatekeeper</i>)	Gatekeeper has most of the political power	Gated may also have political power.

The top half of Table 7 above represents the *identification* component that provides the nomenclature of the five main constructs of *Network Gatekeeping: Gate, Gatekeeping, Gated, Gatekeeping Mechanism, and Gatekeeper*. This part of the Table emphasizes the following. First, traditional theories focus on certain types of *gatekeepers* (e.g., editors, mediators), and this focus necessarily limits attention to an analysis of a limited number and limited variations of *gates*. However, observation suggests that there exist both a multitude of *gatekeeping mechanisms* with multiple *gatekeepers*, compelling a model that allows for many *gates* and types of *gates*. Second, the absence in traditional literature of a clear and transparent vocabulary for discussing the concept of *gated* results in studies that concentrate solely on *gatekeepers*, ignoring the important roles of the *gated*. One of the contributions of *Network Gatekeeping* is that it encompasses these *gated* roles as components in the conceptual framework and compels their consideration in discourse of theory and practice. Third, this article broadens the *gatekeeping* conceptualization to encompass any information control activity and adding to the literature the concept of *gatekeeping mechanisms*.

The second part of the table represents the *salience* component, which articulates the salience of *gated* to *gatekeeper* through four attributes: *relationship* with the *gatekeeper*, *information production*, *alternatives* and *political power*. Different types of *gated* emerge from the combination of these four attributes illuminating different spectrum of choices, processes and dynamics (see table 6). This part of the table highlights several issues: first, it reflects the dynamism of the theory by articulating the continuity of modes of the four attributes. For example, a *gated* can have *political power* in different levels and scope in relation to the *gatekeeper*. Second, it exemplifies a transformation from the rather one-sided and static view of the *gatekeeper* in traditional literature to a more dynamic view that reflects bargaining between *gated-gatekeeper*. On the one hand, traditional literature conceives the *gatekeeper* as the main source for information production, the powerful disseminator of information; on the other hand, it emphasizes the scant alternatives available to *gated*. *Network*

Gatekeeping recognizes the possibilities for a versatile and dynamic nature of the relationship between *gated* and *gatekeeper* due to frequent, enduring and direct exchange; the potential dynamic interchange of information production between *gatekeeper* and *gated*; the growing range of alternatives that exist for the various stakeholders along with additional *gatekeeping mechanisms* which *gatekeepers* can exercise; and the potential for the *gated* to have and exercise political power.

Figure 1: Illustration of Network Gatekeeping

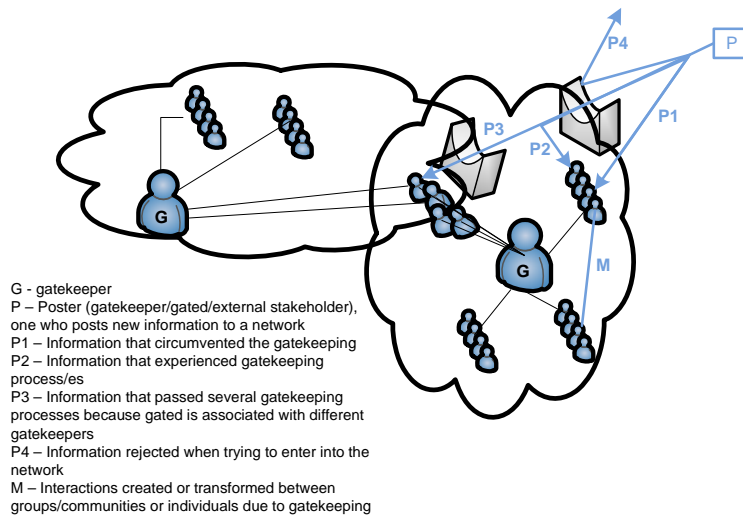


Figure 1 above illustrates some of the main characteristics discussed above. It exemplifies that the *gated* may be associated with multiple networks and gatekeepers; that the *gated* may be viewed as individuals or as part of groups, organizations and communities. This figure also illustrates the possibility of multiple *gates* and a *gatekeeping mechanism* (see P3 in figure 1) and the possibility of circumventing *gatekeeping* (see P1 in figure 1). It shows that the *gatekeeper* may serve as a mediator between groups and communities (see M in figure 1) and as an access controller (see P4 in figure 1). The diagram illustrates that information production and posting may be done by either the *gated*, *gatekeeper*, or external stakeholder; and it shows that *gates* may exist within a network as well as at the network boundaries.

The purpose of this article to incite a momentum in the development of network gatekeeping theory, came at the expense of refining the different types of *gated* and the ability to fully articulate the dynamism of the theory. For the sake of clarity in a pioneering articulation of a theory I have necessarily made some broad assumptions that may be subjected to some reservations. Therefore, I call for additional theoretical refinement and clarification of network gatekeeping, and specifically understanding the spectrum of dynamics of *gated* activities and characteristics.

The article emphasized networks of information and technology, yet the aim of *Network Gatekeeping* is to be applicable and reflect a broader range of networks that are not necessarily presented through technology only. It is important that future work extend and develop the framework in other contexts, for example, the context of networks of communities interacting with *gatekeepers* in varied ways such as face-to-face interactions. Laying the foundations of *Network Gatekeeping* theory is only the first step in establishing a sound framework which later could be utilized. There is a need for further operationalization and empirical observation, the generation of testable hypotheses, and the creation of context-specific models. For example, looking for conditions and circumstances in which *gated* may operate under a specific tier, or identifying what constraints and incentives exist to change positions in relation to different *gatekeepers*. Empirical investigations are needed to strengthen the foundations of the suggested theory.

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