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# **GATEKEEPING IN NETWORKS: A META-THEORETICAL FRAMEWORK FOR EXPLORING INFORMATION CONTROL**

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## **ABSTRACT**

This paper suggests a meta-theoretical framework for comprehending information control by gatekeeping. First, it develops a new way of looking at the classical concept of gatekeeping from the perspectives that are more pertinent to networks and information systems, and sharpen the discrepancies between gatekeeping as a classical concept and gatekeeping in networks. Second, as a systematic way to organize the new body of knowledge this study introduces two typologies of gatekeepers and gatekeeping mechanisms in networks and conclude with the elements and processes that characterize gatekeeping in a network context. Finally, this study lays the foundations for future research of information control in networks.

## **KEYWORDS**

Gatekeeping, Meta-theory, Information Control, Networks - politics

# 1. INTRODUCTION

The paper suggests a conceptual framework of information control through gatekeeping. Gregor [2002] identifies five types of theory: (1) for analyzing and describing (descriptive theory); (2) for understanding; (3) for predicting; (4) for explaining and predicting; and (5) for design and action. In this paper we refer to the first and to some extent to the second types. Our conceptual framework does not contain a set of concrete propositions that present a systematic view of phenomena by specifying relations among variables. Some scholars would label it a meta-theory [Ritzer, 1990], a theory of theories, a prelude theory that sets the stage for future development of other types of theories within its framework. Its main contribution is the creation of new perspectives and the sourcing of new theories. A “descriptive theory is valuable, as stated above, when little is known about some phenomena” [Miles and Huberman, 1994]. In this paper we construct fundamentals that can constitute an important domain in the field of information systems (IS) that has not yet been approached by IS. There are two categories of descriptive theory: naming and classification. “A naming theory is a description of the dimensions or characteristics of some phenomenon. A classification theory is more elaborate in that it states that the dimensions of characteristics of a given phenomena are structurally interrelated” [Gregor, 2002]. In this paper we use both categories: naming and classification. We rewrite gatekeeping theory as synthesized by other disciplines in light of empirical and conceptual considerations. Rather than convert an existing theory to IS context, we create new definitions and taxonomies that apply to IS, using existing gatekeeping studies from other disciplines as a base.

In the first part of the paper we construct a new way of looking at the classical concept of gatekeeping, through lenses more applicable to networks and information

systems, and we underscore the differences between the traditional reference to gatekeeping and the new proposed conceptual framework of gatekeeping within networks. Next, we present a systematic approach to the new knowledge and introduce two typologies of gatekeepers and gatekeeping mechanisms in networks. Finally, we present a table that lays the foundations of future theory development under the new meta-theory by defining the main constructs of gatekeeping in networks and discussing why and how gatekeeping occurs to help explain the processes of information control in networks. As an epilogue we suggest an application of our meta-theory in the context of virtual communities to exemplify some of the uses of the gatekeeping in networks framework.

To complement our allegation regarding this conceptual framework contribution, a clear argument to the motivation of its inclusion under the IS field boundaries should be put forward. Various schools within the IS field define the boundaries of the field differently. Looking at core theories as the main legitimization of the field – For example through IT artifacts [Wang and Benbasat, 2005] or deriving the sense of identity from organizational context [Ciborra, 1998] or looking at a more broad base like societal, policy and ethics as locus of IS study [Galliers, 2003]; Other schools set other criteria than having a set of core theories in IS for the purpose of inclusion/exclusion [King and Lyytinen, 2004, Lyytinen and King, 2004]. For example, focusing on the salience of the issues studies, the production of strong results and the maintenance of disciplinary plasticity. We regard policy and societal issues as part of the IS field, and because gatekeeping deals with interactions among social actors through the Internet, the IS field should deal with this crucial phenomenon of information control and regard it as part of IS.

The concept of *gatekeeper* was first coined by the 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 the introduction of Kurt Lewin's insight, the concept of gatekeeping has been used in various disciplines (e.g., communication, sociology, psychology, political science). Additionally it has been applied specifically to practical domains such as journalism (e.g., newspapers editors as gatekeepers), health science, operations research, and technology development (e.g., consultants who provide a second opinion or function as intermediaries) [Beckman and Mays, 1985, Motoyer-Duran, 1993, Shoemaker, 1991, Shumsky and Pinker, 2003]. Most of the theoretical progress has taken place in the communication field, where gatekeeping has been referred to mainly as a selection process. Therefore, we use the communication literature as a basis for developing the new meta-theoretical framework. The absence of a gatekeeping theory within the context of networks and IS is clear and needs to be addressed.

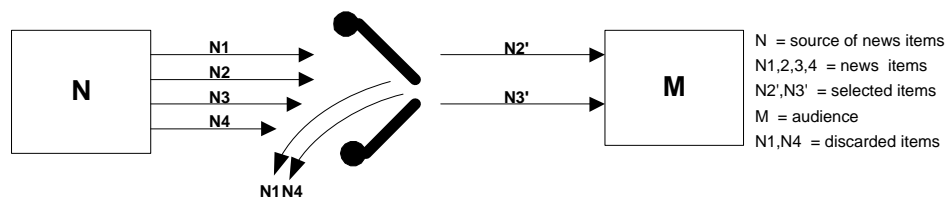
## **2. TRADITIONAL THEORIES AND VIEWS OF GATEKEEPING**

Shoemaker [1991] begins her book with a 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.” 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, which it applies to both interpersonal and mass communication [Shoemaker, 1991, Shoemaker et al., 2001]. Lewin conducted experiments on group decisions and argued that group decisions depend heavily on aspects of social steering through *gatekeepers*. Lewin describes the entry to a channel and to its sections as a *gate*. The movement within the channel and between the

channel and its external environment is controlled by one or more *gatekeepers* or “impartial rules” [Lewin, 1951]. Accordingly, Shoemaker [1991] defines gates as an “in” or “out” decision point.

Lewin’s gatekeeping theory has yielded various studies and models 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 the gate. In the formative years of the development of gatekeeping theories 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.

**Fig 1: White’s Model of Gatekeeping**



Shoemaker [1991] classified the theories and models of gatekeepers developed since Lewin into five main categories. (1) *The individual level*, which looks at the extent to which individuals are responsible for the gatekeeping selection. At this level, the focus is on models of thinking, that is, on how gatekeepers evaluate and interpret messages [Kahneman et al., 1982] and on theories of decision making [Gandy, 1982]. Other topics of analysis are the characteristics of the individual gatekeeper’s personality [Lewin, 1951, White, 1950], background, values, role conceptions [Bass,

1969], and experiences. (2) *The routines level* [Gieber, 1956]. Routines, according to Shoemaker [1991], are “patterned, routinized, repeated practices for forms that media workers use to do their jobs.” (3) *The organizational level*, which refers to internal factors that vary by organization and at times by a group’s decision-making patterns [Bantz, 1990]. (4) *The institutional level*, which unlike the organizational level concentrates mainly on the exogenous characteristics of organizations and on their representatives that affect the gatekeeping process (e.g., market forces, political alliances) [Donohue et al., 1989]. (5) *The social system level*, which explores the impact of ideology and culture on gatekeeping [Gramsci, 1971].

Table 1 outlines some of the factors that constitute gatekeeping and the relations between gatekeeping and other variables suggested within the framework of the communication literature.

**Table 1: Forces that Affect Gatekeeping in Traditional Literature**

<b>Subjective Factors</b>	
Personal judgment	Editors’ decisions are highly subjective [Bagdikian, 2004, Levingston and Bennet, 2003, Snider, 1967, White, 1950].
Trust	Doubtful credibility of a reporter and lack of experience have a negative effect on the gatekeeper’s decision to accept a news item [Shoemaker, 1991].
<b>Information Characteristics</b>	
Visual	News are less likely to be subjected to gatekeeping if they are visual [Abott and Brassfield, 1989].
Size and number	Growing number of available news items and their size serve to increase gatekeeping [Gieber, 1956].
Clarity	Positive relation with acceptance of news [Galtung and Ruge, 1965].
<b>External Constraints</b>	
Cost	An expensive process increases the likelihood of gatekeeping [Levingston and Bennet, 2003].
Time constraints	Proximity to deadline of publishing increases the tendency toward gatekeeping [Galtung and Ruge, 1965, Jones et al., 1961, Levingston and 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 [Levingston and Bennet, 2003].

<b>Organizational Characteristics and Procedures</b>	
Role	The actor's position (e.g., news gatherer, news processor, reporter, editor) affects the gatekeeping decision [Bass, 1969, Dimmick, 1974, Westley and MacLean, 1957].
Policy	Routines that establish the working relations between reporters and the source determine the nature of gatekeeping [Levingston and Bennet, 2003, Westley and MacLean, 1957].
Threshold value	Higher value reduces chances of being accepted for publication [Galtung and Ruge, 1965].
Standard	The standards of the profession affect gatekeeping decisions [Bagdikian, 2004, Davison and Yu, 1974].
<b>Institutional Environment</b>	
Opinion leaders	Greater likelihood for accepting the news definition of opinion leaders, which affects gatekeeping decisions [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].
<b>Social Environment</b>	
Newsworthiness	An information item that is conceived to be newsworthy is less likely to pass gatekeeping [Shoemaker et al., 2001].
Cultural differences	Information is more likely to pass gatekeeping if it is similar to the cultural preferences of society [Galtung and Ruge, 1965].

### **3. GATEKEEPING IN NETWORKS: A NEW CONCEPTUAL FRAMEWORK FOR GATEKEEPING IN IS**

The traditional interpretations of the concepts of *gatekeeping* and *gatekeeper* are scarcely employed with reference to the Internet [Birnhack and Elkin-Koren, 2003, Deuze, 2001, Dimitrova et al., 2003, Hargittai, 2000b, Singer and Gonzalez-Valez, 2003]. When they are used in this sense, it is mostly for illustration or application of the traditional communication theories while focusing on a narrow scope of online newspapers. The concept of gatekeeping has not been part of theoretical approaches to the Internet. The absence of gatekeeping approaches in studies of management of information system stands out most prominently. Although information control should be of high interest to the IS community, no study addresses the issue directly, and few do so indirectly. We therefore resort to an analysis of literature from different disciplines external to IS to construct a contextual theoretical infrastructure that can later be applied to IS. To do so, we must define the concepts relevant to gatekeeping in a context of networks and IS.

### 3.1 DEFINITIONS

Looking at evolutionary definitions in communication literature helps identifying main stakeholders constructs to be considered under the new gatekeeping framework. Traditional communication literature on gatekeeping treats the process of gatekeeping predominantly as a selection mechanism [Shoemaker, 1991], but viewing it as such in context of networks merely constrains the meaning of the process of gatekeeping. Networks provide a variety of ways to perform gatekeeping. Donohue, Tichenor, and Olien's definition [1972] takes the traditional approach further and looks at gatekeeping as a process that encompasses more than just selection: "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." We adopt this definition as a starting point and treat the gatekeeping process as a type of control exercised on information as it moves in and out of virtual gates. Accordingly, we propose that the following constructs form the basis of a conceptual framework in networks: gatekeeping; gate; the gatekeeper (who performs gatekeeping); the gated (on whom gatekeeping is exercised); and gatekeeping mechanisms (the means used to carry out the 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]. We maintain that this type of observation is vague and should be refined by differentiating between the means of the process and its executor. Therefore, in addition to adjusting definitions to a network context we have divided the traditional concept of a *gatekeeper* into two concepts and



conceptualized “routine procedures” as a type of *gatekeeping mechanism* and not as a gatekeeper.

We propose the following definitions of gatekeeping elements:

***Gate*<sup>1</sup>** – Entrance to or the exit from a network or its sections.

***Gatekeeping*** – Process of controlling information as it moves through a gate. Activities include selection, addition, withholding, display, channeling, shaping, manipulation, repetition, timing, localization, integration, disregard, and deletion of information.

***Gatekeeping mechanism*<sup>2</sup>** – Tool, technology, or methodology used to carry out the process of gatekeeping.

***Network gatekeeper*** – 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.

***Gated*** – Entity subject to a gatekeeping process.

The first step toward building the typology of gatekeepers and gatekeeping on the Internet is to decompose the possible gatekeeping processes into activities, looking at the ways in which information can be handled while passing through gates. Table 2 summarizes these activities as reflected in the traditional and contemporary literature in different fields; the list does not claim to be exhaustive.

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<sup>1</sup> Although this study is grounded in the literature of communication, which considers gatekeeping as a process activated while entering from the outside, in the present context the process is viewed as active in various directions of information flow: entrance or exit to/from a network as well as motion within it.

<sup>2</sup> The terms *gatekeeping mechanism* and *gated* do not exist in the literature and are introduced in our theoretical framework.

**Table 2: Gatekeeping Process by Activities in a Networking Context**

Gatekeeping Elements	References
Selection	[Donohue et al., 1972, Gieber, 1956, Lawrence and Giles, 1999, Lewin, 1951, Shoemaker et al., 2001, Singer and Gonzalez-Valez, 2003, Snider, 1967, Van Alstyne and Brynjolfsson, 2005, Wang and Benbasat, 2005, Westley and MacLean, 1957, White, 1950]
Addition	[Barzilai-Nahon, 2000, Introna and Nissenbaum, 2000, Jones et al., 1961]
Withholding	[Bass, 1969, Donohue et al., 1972, Introna and Nissenbaum, 2000, OMB Watch, 2002]
Display	[Deuze, 2001, Donohue et al., 1972, Hong et al., 2004, Mabley, 1999, Mabley, 2000]
Channeling	[Barabasi, 2001, Barabasi and Albert, 1999, Bass, 1969, Dimitrova et al., 2003, Donohue et al., 1972, Elkin-Koren, 2001, Hargittai, 2000a, Hargittai, 2000b, Introna and Nissenbaum, 2000, Prusak and Cohen, 2001, Rogers, 2005, Waxman, 2000]
Shaping	[Bass, 1969, Deuze, 2001, Donohue et al., 1972, Elkin-Koren, 2001, Introna and Nissenbaum, 2000, OMB Watch, 2002, Tuchman, 1974]
Manipulation	[Bagdikian, 2004, Bass, 1969, Donohue et al., 1972, Elkin-Koren, 2001, Introna and Nissenbaum, 2000, OMB Watch, 2002, Tuchman, 1974]
Repetition	[Donohue et al., 1972, Shoemaker, 1991]
Timing	[Donohue et al., 1972, Morris, 2000]
Localization (including translation)	[Barzilai-Nahon and Gad, 2005, Compaine, 2000, DiMaggio and Hargittai, 2001, GlobalReach, 2003, Hansen, 2002, O'Hagan and Ashworth, 2002, Ramsey et al., 2000, Sunstein, 2001, Van Alstyne and Brynjolfsson, 2005, Zittrain and Edelman, 2002]
Integration	[Bass, 1969, Compaine and Gomery, 2000, Elkin-Koren, 2001, Hacki and Lighton, 2000, Olsen, 2001, Van Alstyne and Brynjolfsson, 2005]
Disregard	[Adams, 1980, Introna and Nissenbaum, 2000, Jones et al., 1961, Lawrence and Giles, 1999, Nisbett and Ross, 1980]
Deletion	[Barzilai-Nahon and Neumann, 2005, McCullagh, 2002b, Morris, 2000, OMB Watch, 2002, Zittrain and Edelman, 2002]

### 3.3 METHODOLOGY: BUILDING A PIONEERING TYPOLOGY FOR IS

Choosing the appropriate methodology for developing the meta-theoretical framework, and specifically the typologies of gatekeeping mechanisms and gatekeepers, posed three main challenges: first, the relevant literature spans different fields outside IS; second, using IS lenses in order to render new definitions and classifications; finally, we needed to create a suitable methodology to justify the typologies and were not able to rely on existing approaches dealing with multidisciplinary knowledge such as multiparadigm approaches<sup>3</sup> [Lewis and Grimes, 1999] because these methodologies are based on existing paradigms. In our case we

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<sup>3</sup> i.e., multiparadigm reviews, multiparadigm research, metaparadigm theory building or metatriangulation.

were required to transform traditional paradigms to a new paradigm based on new rules.

This study uses a *holistic* approach to build a theoretical typology that can deal with the many variables and categories that constitute network gatekeeping [Segev, 1988, Segev, 1999], as opposed to *atomistic* approach that usually focuses on a limited number of variables and is too narrow for our theoretical expectations. Two methodologies are suitable for creating typologies. The first one identifies relevant attributes in the literature and collects data. It then clusters the attributes into categories based on the collected data and according to clustered values. Finally, it identifies categories by names and interpretations. An example of this type of methodology is Miller and Friesen's study [Miller and Friesen, 1978]. Our study uses a second methodology that constructs categories from a conceptual starting point, then uses data derived from an extensive literature review and secondary data analysis to refine the categories and achieve the desired level of precision. An example of this methodology is the study of Ein-Dor and Segev [1993]. Using this approach we were able to alter some of the traditional theoretical perspectives and transform them to fit the IS context.

The predefined conceptual categories and the transformed categories after the refinement process were based on a literature review and analysis of secondary data from various disciplines: communications, law, sociology, management, and information science. The refinement whether or not to include a data unit as relevant in Tables 3 and 4 was based on Table 2, which lists the various new conceptual activities of gatekeeping. Every Internet gatekeeping activity (e.g., selection, addition, or channeling) that was identified in a paper was handled as a relevant data unit. We identified 137 relevant data units in the typology of gatekeeping mechanisms and 116

in the typology of gatekeepers. The coding scheme we constructed to capture gatekeeping in the data units included: definition of gatekeeping, measure of gatekeeping, key research findings, level of analysis, research method, nature of study, and length of study. We explored the literature published in the years 1997-2005; because of the exploratory nature of the research we adopted an inclusive approach to allow maximum exposure from all relevant fields and therefore did not confine ourselves to specific journals. Computer exploration by topic, which is recommended for reviews, was not possible in our study because of the different terms used for gatekeeping in the literature and because of the scarce number of related items. Consequently, we conducted manual searches and compared the data items with the predefined conceptual categories. If an item did not fall into a category, we conducted a process of refinement in which the category was changed, added, or split. We selected categories and sub-categories with the highest possible level of abstraction and generality to achieve clarity and coherence.

### 3.4 A TYPOLOGY OF GATEKEEPING MECHANISMS

In this typology, we predefined and considered originally five categories: cost-effect, censorship, regulation, security, and infrastructure mechanisms. After analyzing and refining the data units, we identified nine categories and one meta-category (Table 3).

**Table 3: Typology of Gatekeeping Mechanisms**

Type of Gatekeeping Mechanism	References
<b>Channeling mechanisms</b> (search engines, directories and categorization, hyperlinks)	[Arasu et al., 2001, Barabasi, 2001, Birnhack and Elkin-Koren, 2003, Broder et al., 2000, Dimitrova et al., 2003, Elkin-Koren, 2001, Hargittai, 2000a, Hargittai, 2000b, Introna and Nissenbaum, 2000, Lawrence and Giles, 1999, Mowshowitz and Kawaguchi, 2002, Rogers, 2005, Zittrain and Edelman, 2002]
<b>Censorship mechanisms</b> (filtering, blocking, zoning, and deletion of content)	[Blakeney and Macmillan, 1999, Bresnen et al., 2004, Deibert, 2002, Hunter, 2000, Jacob, 2003, Kleiner and Farris, 2002, Lessig, 1999, Lessig, 2001, Marx, 1998, McCullagh, 2002c, NTIA, 2003, OMB Watch, 2002, Privacy International and GreenNet Education Trust, 2003, Reporters Sans Frontieres, 2003, Schulman, 2001, Shapiro, 1999, Wang and Benbasat, 2005, Zuboff, 1988]

<b>Internationalization mechanisms</b> (localization and translation)	[GlobalReach, 2003, Hansen, 2002, O'Hagan and Ashworth, 2002, Ramsey et al., 2000]
<b>Security mechanisms</b> (authentication controls, integrity controls, access controls)	[Hawkins et al., 2000, Kurose and Ross, 2003, Oppliger, 2002, Panko, 2003, Pfleeger et al., 2002, Singh, 2000]
<b>Cost-effect mechanisms</b> (cost of joining, cost of usage, and cost of exit)	[Brynjolfsson and Kahin, 2000, Compaine, 2000, Cooper, 2002, DiMaggio and Hargittai, 2001, Goldhaber, 1997, Hargittai, 2002, Hoffman and Novak, 2000, Hoffman et al., 2000, Hudson, 2000, International Labor Organization, 2001, International Telecommunication Union, 2002, Jones et al., 2004, Kleiner and Farris, 2002, Lessig, 2001, Online Publishers Association, 2003, Rohde and Shapiro, 2000, Shapiro and Varian, 1999, Smith et al., 2000, Van Alstyne and Brynjolfsson, 2005]
<b>Value-adding mechanisms</b> (personalization, contextualization, customization, and integration)	[Amit and Zott, 2001, Hargittai, 2000a, Hargittai, 2000b, Kenny and Marshall, 2000, Levingston and Bennet, 2003, Mabley, 1999, Mabley, 2000, Nua, 2001b, Nua, 2001c, Nua, 2001d, Nua, 2002, Porter, 2004, Shapiro and Varian, 1999, Smith et al., 2000, Sung-Eui and Kwangtae, 2002, Watson et al., 2003]
<b>Infrastructure mechanisms</b> (network access, bandwidth, and network configuration)	[Brousseau, 2002, Compaine, 2000, Cooper, 2002, Hoffman and Novak, 2000, Hudson, 2000, International Telecommunication Union, 2002, Nuechterlein and Weiser, 2005, Panko, 2003, Stallings, 2001]
<b>User interaction mechanisms</b> (direct navigation and add-on navigation)	[Cornfield and Rainie, 2003, Shapiro, 1999, Sherman, 2003, Sorensen et al., 2001, Wasko et al., 2004, WebSideStory, 2003]
<b>Editorial mechanisms</b> (technical controls, content controls, and design tools)	[Detlor et al., 2003, Deuze, 2001, Dimitrova et al., 2003, Hong et al., 2004, Jones et al., 2004, Kim and Benbasat, 2003, Robbins and Stylianou, 2003, Smith, 1999a]
<b>Regulation meta-mechanisms</b> (state regulation, self-regulation)	[Agre, 2002, Benkler, 2000, Birnhack and Elkin-Koren, 2003, Blakeney and Macmillan, 1999, Brousseau, 2002, d'Udekem-Gevers and Pouillet, 2002, Elkin-Koren, 2001, Greenleaf, 1998, Jacob, 2003, Lessig, 1999, Lessig, 2001, MacLean, 2004, Perritt, 1997, Shapiro, 1999, Zittrain and Edelman, 2002]

### 3.5 A TYPOLOGY OF GATEKEEPERS

In this typology, we predefined conceptually and originally considered six categories: governments, industry regulators, network and service providers, authority sites, search engines, and network administrators. Inconsistencies and leftovers necessitated a further review of the categories, and consequently we divided the typology into an authority dimension and a functional dimension.

**Table 4a: Typology of Gatekeepers: Authority Dimension**

Gatekeeper Type	References
<b>Government level</b> (authoritarian type of regimes, democratic type of regimes)	[Agre, 2002, Amnesty, 2002, Deibert, 2002, ITU, 2002, Kalathil and Boas, 2001, OMB Watch, 2002, Press et al., 2002, Privacy International and GreenNet Education Trust, 2003, Reporters Sans Frontieres, 1999, Reporters Sans Frontieres, 2003, Shapiro, 1999, US-Government, 2003]
<b>Industry regulator level</b> (standard regulator, procedure and codex, regulator)	[Bagdikian, 2004, Brousseau, 2002, Compaine and Gomery, 2000, d'Udekem-Gevers and Pouillet, 2002, Jacob, 2003, Lessig, 1999, Lessig, 2001, Shapiro and Varian, 1999]
<b>Internal authority level</b> (institutions, organizations, social networks, and communities)	[Dimitrova et al., 2003, Hacki and Lighton, 2000, Hartman, 2001, Jones et al., 2004, Kleiner and Farris, 2002, Laudon and Laudon, 2002, Oppliger, 2002, Panko, 2003, Rheingold, 2000, Schulman, 2001, Smith, 1999a, Smith and Kollock, 1999, Wellman and Gulia, 1999]
<b>Individual level</b>	[Cope, 2003, Jacob, 2003, Sjoberg, 1999]

**Table 4b: Typology of Gatekeepers: Functional Dimension**

Gatekeeper Type	References
<b>Infrastructure provider</b> (NSP (Network Service Provider), ISP (Internet Service Provider) Carrier Service Provider ASP (Application Service Provider))	[Blake and Tiedrich, 1994, ITU, 2002, Jones et al., 2004, McCullagh, 2002a, Nuechterlein and Weiser, 2005, Pappalar, 2001, Smith, 1999b, Stallings, 2001]
<b>Authority site property</b> (Search provider, portal property, online marketplace concentrator, content provider, virtual community enabler)	[Arasu et al., 2001, Barabasi, 2001, Broder et al., 2000, Cornfield and Rainie, 2003, Elkin-Koren, 2001, Hargittai, 2000a, Hargittai, 2000b, Introna and Nissenbaum, 2000, Jones et al., 2004, Koh and Yok, 2002, Laudon and Laudon, 2002, Lawrence and Giles, 1999, McCullagh, 2002a, McCullagh, 2002b, Mowshowitz and Kawaguchi, 2002, Nielsen, 2002, Nua, 2001a, Olsen, 2001, Olsen, 2002, Online Publishers Association, 2003, Pruitt, 2002, Rheingold, 2000, Rogers, 2005, SearchEngineWatch, 2001, Smith et al., 2000, Waxman, 2000, Wellman et al., 2002, Zittrain and Edelman, 2002]
<b>Administrator</b> (application and content moderator, network administrator)	[Berge and Collins, 2000, Morris, 2000, Rheingold, 2000, Smith, 1999b]

### 3.6 DISCUSSION: CONSTRUCTING A META-THEORETICAL FRAMEWORK OF GATEKEEPING

The two typologies demonstrate that gatekeeping comprises more than just a selection process. We have identified a compound process of gatekeeping on the Internet. To complete the process of developing a meta-theoretical framework, we compare and analyze the differences between traditional gatekeeping and network gatekeeping (Table 5).

**Table 5: Comparing Traditional Theories of Gatekeeping with the Meta-theory of Network Gatekeeping**

	<b>Traditional Gatekeeping</b>	<b>Network Gatekeeping</b>
<b>Theoretical base of gatekeeping</b>	Primarily a selection process.	Information control as it moves through a gate (Table 2).
	Main goal is to transfer the gatekeeping objects to the gated.	Three goals to gatekeeping: lock-in of the gated inside the gatekeeper's network; prevent unwanted entry from outside; and maintain "normal" activities within network boundaries.
<b>Gatekeeper focus</b>	Focus on individuals with gatekeeping roles.	Focus shifts to institutional actors. Two dimensions of gatekeeper focus are suggested: authority and functional (Table 4).
<b>Gatekeeping mechanism focus</b>	Focus on editorial mechanisms: how selection is executed.	Various mechanisms to execute gatekeeping (Table 3) (e.g., censorship, channeling, infrastructure mechanisms)
	Primarily a manual process	Because of information volume, primarily automated procedures and tools.
<b>Scope of Gatekeeping</b>	No clear scope. Most of the relationship is indirect.	Communal and circulatory. The gatekeeper guards the boundaries of networks under its control.
<b>Relationships</b>	Relations of sender-receiver.	Frequent exchange interactions between gated and gatekeeper.
	Usually no feedback received from the gated.	The gatekeeper must be prepared to receive feedbacks from gated.
<b>Information</b>	Notion of source-destination.	No necessary association between source-destination and gatekeeper-gated.
	Only gatekeepers produce and create information freely.	Not only gatekeepers, but the gated also create and produce information.
<b>Alternatives</b>	No alternatives to gatekeeping.	Possible circumvention of gatekeepers and gatekeeping mechanisms. Nevertheless, the attention of the gated is concentrated on a few numbers of gatekeepers.
<b>Perceived political power</b>	Gatekeeper has power; the gated has none.	The bargaining power of the gated is on the rise. At the same time, gatekeepers have more mechanisms to control information.
<b>Number of gates</b>	One to a few	A few to many
<b>Types of gates</b>	One to a few	A few to many

According to the traditional concept of *gatekeeping* in communication studies and mainly in mass media discourse, the main stakeholders were conceived as sender-receiver roles. Gatekeepers (the prominent functions of agents in mass media, such as editors and gatherers) were conceived as the *sender*, and the gated (e.g., the newspaper reader, television viewer, or radio listener) played the role of the *receiver*. The traditional literature conceived the gatekeeper as responsible for the editing, production and distribution of most information items received by the gated. Within the network context, this traditional notion of *sender-receiver* has no significance to

the gatekeeping process because these roles are repeatedly exchanged between the gatekeepers and the gated.

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; 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. However, in the context of networks, this notion is 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 the gated along the information flow path. Hence, the traditional notion of *source-destination* has no relevance for understanding information flow and information control on the Internet.

Despite many gatekeeping mechanisms listed in the typology, and despite the view of the Internet as a diversified space that allows pluralist entities to be perceived as stakeholders, in constructing the typologies (Tables 3, 4a, and 4b) we found that the gated is often focused on a few gatekeepers. The attention of users, and more specifically of the gated, is concentrated on a small number of gatekeepers in each category, over a long period of time. For example, concentration of attention is a reality in the realm of search providers: 90% of search engine users utilize 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. Changes of political power among gatekeepers are complex. Compared with traditional gatekeeping, within a network context IS provides gatekeepers with more mechanisms to exercise their power, but at the same time provides the gated with more possibilities to circumvent



gatekeeping. Notwithstanding this increasing freedom and ability to circumvent gatekeeping, the attention of gated became more centralized and dependent on a few sources of power, making gatekeeping even more important for users' activities on networks.

Furthermore, according to the traditional literature, only gatekeepers create and produce information; the gated were not considered to be capable of producing and creating information unreservedly. Thus, the gated only rarely create information without depending on control and authorization from the gatekeeper. For example, a newspaper reader who wants to react to an article may do so only by means as a specific column reserved for readers' responses, and the editor must approve it for publication. Our meta-theoretical framework argues for a more multifaceted balance between gatekeepers and the gated on the Internet. Because they own vast resources, gatekeepers are more likely than the gated to create and produce most of the content. Although the gated can create and produce information independently, without having to pass through a content gatekeeper, usually the significance and prominence of their work is limited. Content produced by the gated tends to receive only limited exposure compared with the information disseminated by the gatekeepers that control the attention of most of the audience. Nevertheless, alternative platforms to those controlled by gatekeepers, that are largely enabled by information systems are not without significance, even if they exist only to a limited degree.

Examining the gatekeeper-gated power relations in networks necessitates to distinguish between the ability of the gated to produce information and their ability to create it. Networks and information systems have provided users with inexpensive means to produce information that in many cases was created or passed to them by gatekeepers, empowering the gated. As opposed to producing information, its creation

requires greater investment and is still usually done exclusively by gatekeepers. The deterministic claim put forward by the elitist paradigm [Bagdikian, 2004] states that even if the gated has the freedom of choice or ability to circumvent gatekeeping, their impact is minimal because choosing an alternative to a gatekeeper is still contingent upon the same cultural, political, and social context to those of the gatekeeper and thus choosing an alternative is tantamount to substituting one gatekeeper with another with similar characteristics. Our meta-theoretical framework shows that 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.

Traditional frameworks emphasize the gatekeeper-gated relationship as unidirectional. Because of their limited ability to offer feedback or reciprocate for information sent by gatekeepers, the gated are perceived as possessing no significant power. In a networked environment, however, the situation is more complicated. The gated are stimulated by gatekeepers to interact and provide feedback, and have the ability to do so. Their bargaining position and their power are enhanced relative to what it is in the traditional mass media, which forces stakeholders to use information control mechanisms more carefully.

Finally, our meta-theoretical framework encourages a communal view of the system. Networks have constructed communal and circulatory relationships among the different stakeholders. Information is not being passed along in a one-sided manner, which has altered the role and responsibilities of gatekeepers. Not only do they pass and select information, but they must also show more responsibility for the consequence of gatekeeping within their networks. Gatekeepers must protect the gates they have created to prevent “unwanted” information from entering the network, to

lock- in the gated that are inside, and to stabilize and organize information inside the network. This change of role from traditional communication to the Internet should be the subject of further research.

Below is an example of a possible application of our meta-theoretical framework using virtual communities as the unit of data analysis and identifying virtual community providers and managers as gatekeepers:

**Table 6: Application of the Theoretical Framework: The Example of Virtual Communities**

	<b>Virtual Community Provider</b>	<b>Virtual Community Manager</b>
<b>Concepts</b>	Gatekeeper: provider Gated: managers, members	Gatekeeper: manager Gated: members
<b>Basis of gatekeeping</b>	Display, channeling, and deletion (usually done only in reaction to external requests from authorities)	All types
	Goals: signing up new members to the community and preventing drop-out.	Goals: maintaining order and preventing drop-out.
<b>Gatekeeper focus</b>	Functional dimension: Authority site property gatekeeper (Table 4.)	Authority dimension: Internal Authority Level or Functional Dimension: Administrator (Table 4)
<b>Gatekeeping mechanism focus</b>	Channeling (by indexes); cost; regulation; rarely security, censorship, and editorial (Table 3).	Censorship; editorial; channeling (by hyperlinks); regulation (Table 3).
<b>Scope of gatekeeping</b>	All virtual communities utilizing the platform.	An individual virtual community.
<b>Relationships</b>	No direct relationship with the gated (community members). The operational relationship is maintained mainly through the managers of virtual communities.	Direct relationship with the gated (community members).
<b>Information</b>	Source-destination direction in cases of announcements and advertisements to the virtual community enabler. In most cases there is no direct information flow between the providers as gatekeepers and members of the communities acting as the gated.	Source-destination direction when the community is an expert group or service providing group type. In most cases there is no direct information flow between the manager as a gatekeeper and members of the communities acting as the gated, but rather information flow inside the community.
	Members of the community create most of the information. Enablers mainly provide the platform (virtual settlements) to conduct the community interactions.	Members of the community create most of the information. Managers intervene either as part of the community discourse or by imposing controls on content when this is necessary to maintain order.
<b>Alternatives</b>	A community as a whole can reproduce its activity and daily life and move to another enabler.	A community as a whole can reproduce its activity and daily life and move to another provider as a cohesive group, try to replace the manager under the same provider, or both.
<b>Perceived political power</b>	Users constitute a potential source of income to the provider. As more	The more cohesive the community is, their bargaining power increases vis-à-

	users are active on the platform, the potential for revenues rises. Therefore, providers face a continuous dilemma between increasing the number of users on their platforms and keeping up the quality of the community, which limits the number of users.	vis the providers and indirectly the managers. The gated may create their own mechanisms to enable their community to interact without interference and to maintain order.
<b>Number of gates</b>	Minimum of three.	Minimum of four.
<b>Types of gates</b>	Network service provider, Internet service provider, and community provider.	Network service provider, Internet service provider, community provider, and manager.

Thus, focusing on one type of gatekeeping in virtual communities, for example the deletion of messages, it is possible to develop an explanatory model for the research questions – “Was a message deleted?” and “Why was a message deleted?” Independent variables such as the role of the gatekeepers (the virtual community’s provider and manager) and the relationship between gatekeepers can be tested to develop a theory within the framework of the meta-theory of gatekeeping.

#### **4. CONCLUSIONS: THE FUTURE OF GATEKEEPING RESEARCH WITHIN THE IS CONTEXT**

The paper formulated a network gatekeeping meta-theory that provides a foundation for the development of other theories. The meta-theory allows researchers to address the commonalities of this phenomenon, develop constructs, and suggest relations between them. It provides definitions of gatekeeping suited for networks and the IS context; definitions of gatekeeping activities, and typologies of gatekeeping mechanisms and gatekeepers. Finally, comparing traditional characteristics with the meta-theoretical framework, we have described the elements that can serve as a basis for future theoretical models.

The meta-theory framework enables obtaining new insights that illuminate processes of information control and provides opportunities for analyzing and explaining the phenomenon through political and social understandings. Meta-theorizing can be useful as a general approach to improving the quality of all types of

inquiry. Meta-theory is rare in IS, and it is important for the IS field to embrace this type of theory development approach.

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