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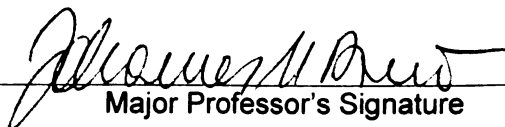
Internet News Search Engines

presented by

Pei-fen Lee

has been accepted towards fulfillment
of the requirements for the

Master of Art degree in Telecommunication,
Information studies and Media


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INTERNET NEWS SEARCH ENGINES

By

Pei-fen Lee

A THESIS

Submitted to

Michigan State University

In partial fulfillment of the requirements

for the degree of

MASTER OF ARTS

Department of Telecommunication, Information Studies and Media

2005

ABSTRACT

THE INTERNET NEWS SEARCH ENGINES

By

Pei-fen Lee

This thesis attempts to apply the theory of structural hole to explore the impact of Internet news search engines and the online news network. By the research method of case studies in the news services of the top three search engines (the Yahoo, Google and MSN), the study discovers that the three search engine news services have different structures but their content in news packaging, geographical focus and news source are similar. The research result also presents that the different structures of the three search engine news services have different influence on the traffic of online news readers and the online news network is very similar with the hybrid information search pattern.

Acknowledgement

I have many people to appreciate for the achievement of my thesis. First, I appreciate my parent's support. Because of their generous support, I can focus on my academic work. I especially thank my mother. Without her encouragement, I would never have a chance to extend one more semester for my thesis and then practice my ideas.

Second, I appreciate Professor Bauer M. Johannes. Because of his patience in understanding my thoughts and profession in the networked theories, I can enjoy writing my thesis. With his company, I always have the confidence in achieving my thesis. Then, I appreciate Professor Stephen Lacy and Professor Steve Wildman. Because of their professions, I am able to integrate my thoughts into my thesis.

Last, I would like to express my appreciation to all of my friends at Michigan State University and at Georgetown University. Because of their considerateness, I never feel lonely on the way I wrote my thesis. Thank them for their entertaining me when I needed a break.

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Chapter 1

Introduction

New technologies often divide media markets into more and smaller segments. When technologies create innovative forms of news media, they must share the news markets with the incumbent news media (Owen and Wildman, 1992). Often market share is gained by differentiation from the incumbent media. Newspaper circulation, for example, keeps declining locally and nationally because of a loss of young readers who turn to the Internet for news (Fitzpatrick, 2005; Hagan, 2005). Each new medium has certain attributes which are appealing to retain its audience/readers. The audience/readers they attract are the foundation from which they can generate advertising revenue (Owen and Wildman, 1992). Thus, many news organizations generate revenue from two interdependent markets: audience/readers and advertising (Owen and Wildman, 1992). When innovative news media differentiate the market of audience/readers, they share the advertising markets simultaneously.

The sharing of incumbent's media markets by innovative new media does not mean that only media with the same attributes compete. They also compete with media having different attributes. According to Chamberlin's (1933) theory of monopolistic competition, organizations sell similar but differentiated products to benefit sellers or to reduce the number of competitors (Heflebower, 1967). Hence, non-price competition is crucial (Burke *et al.*, 1991). Organizations can enhance their competence by the quality of products, labeling, advertising and sales promotions (Burke *et al.*, 1991). The news market is monopolistically competitive (Lacy, 1989). News organizations compete based on quality of news content, brands of news organizations and sales promotions, rather than price. They differentiate their news products based on different media attributes and then enhance their competence by improving quality of news content, their

reputation of brand and sales promotion.

Before the Internet became a search medium for information, each medium retained its market share primarily based on its specific attributes and the nature of its products. After the Internet became a popular information medium, news organizations were forced to extend their scope to the Internet. Many have developed online products and services although their online products and services create a potential channel conflict (Laudon and Traver, 2002). Meanwhile, more and more people tend to use internet search engines to seek information (Fallows, 2005).

Because of internet search engines, the formerly separated markets of different forms of news media converge and their online products and service compete with each other. Conceptually, the emergence of the Internet can be analyzed by using the notion of structural holes as proposed by Burt (1995). Burt's notion of structural holes has a value to discover the multi-level implications from the relationships among players in the online news market. It also helps explain the relationship among internet search engines and news websites.

I plan to conceptualize internet search engine service functions as a structural hole in the news network on the Internet and explore the organization of the online news market. The links to the websites with online products and services that news organizations provide to the news services of internet search engines are a path for online users to the end nodes of those online news websites. The more links to those online news websites are in the internet search engines, the more possibilities that the online users go to the news websites are. Those websites can then generate more advertising revenue from the increasing number of online users. As more and more people get accustomed to use a

certain internet search engine as their daily information search tool, the internet search engine's impact on the online news market will be more and more powerful. My motivating research questions are therefore: what is the effect of internet search engines on the online news markets and what is the picture of online news network? In order to answer my research questions, I will explore the structures of the Yahoo, Google and MSN news services and compare their news packaging, geographic focus and news sources.

In this thesis, I will present a brief review of the literature about the emergence of new information search patterns enabled by the Internet. Then, I will apply network theories to describe my conceptual framework of the structural hole filled by the search engine service in the knowledge network. In the following section, I plan to use the research method of a case study to explore the news services of three most popular internet search engines: Google, Yahoo and MSN (McGann, 2005). After describing my findings, I will indicate issues for future research. The results of my study contribute to a better understanding of the internet news market and may eventually be useful for several stakeholders, including marketing planners.

Chapter 2

The Internet and the Emergence of New Information Search Patterns

The Utilization of Internet Search Engines to Extend the
Information Network

In the information network, different media have different attributes for individuals wanting to search information. They may acquire information from technology-based media, such as radio and television. They also can acquire information from their personal contacts or organizational systems. They are usually unable to access diverse sources of information channels in a limited time because of time required to establish direct links to multiple sources of information. Also, media are biased. For example, the news media are biased because of the influence of organizational policies, advertisers, peers, the public relations (PR) industry, telecommunications policy and news sources (see “What’s wrong with the news”, n.d.). Therefore, they are only able to collect imperfect information. In addition, individuals are only capable of processing limited information and uncertainty. Thus, they are unable to apply their rationality to make maximizing decisions. They can only use bounded rationality to make the most satisfied decisions. Nonetheless, they can improve bounded rationality by meliorating the way to access sources of information and overcome the limitation of imperfect information. Through Internet search engines, for example, individuals establish only one link. Internet search engines, furthermore, are able to automatically generate links to various websites with online information provided by media for users. Internet search engines fall on a structural hole in the information network. It seems that individuals’ information search pattern is transiting to a new form on the Internet. This section investigates what the new information search pattern on the Internet is from a conceptual level and how it emerged.

Network theories are able to provide part of the answer to those questions. First, I will present basic patterns of information searches. Then, I will apply the theory of

self-interest to explain participants' motivation in using Internet search engines and discuss their rationality as the main motivation to seek information. They tend to employ an efficient approach to access sources of information. Following that, I will apply the theory of structural hole to describe the position of the Internet search engines in the information network (Burt, 1995). Finally, I will employ co-evaluation theory to discuss the emergence of the new information search patterns on the Internet.

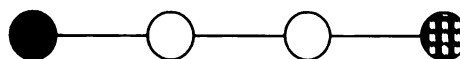
2.1. Basic Patterns of Information Searching

Different approaches to information searching have different attributes and various degrees of efficiency. Individuals utilize them to satisfy their needs based on their resources and varying circumstances. Below are six generic information search patterns. The degree of efficiency of those patterns varies by their structures.

2.1.1. The Linear Pattern of Information Searching

The linear information search pattern is the simplest design. (Figure 1) Individuals (the left black node) have to go through intermediary nodes to access a single source of information (the right plaid node). The structure provides very low efficiency for individuals to obtain information. Individuals are required to pass through a certain channel to access the source of information. They have to establish a link to an initial intermediary node with a link to another intermediary node linking to the end node of information or with a link direct to the end node. Without passing by the intermediary nodes in the structure, it is impossible for individuals to obtain information from the source.

Figure 1

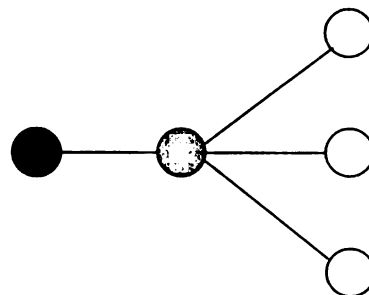


In a bureaucratic information system, such as the army, the linear information search pattern often exists. If a soldier needs information from a general, he has to submit his request to his senior officers, which are intermediary nodes in the information network, and then reach his general, which is the end node of source of information. The information from his general also needs to pass by the intermediary officers to the soldier. This pattern often takes time and there will be costs of transmitting information.

2.1.2. Interfaced Pattern of Information Searching

The interfaced information search pattern (Figure 2) may be a more efficient way of accessing sources of information than the linear pattern. Individuals, the black circle of Figure 2, only need to establish one link to an intermediary node with further links to sources of information, at the right side. For example, individuals would have to establish three links to three sources of information separately in the linear information search pattern. In the interfaced information search pattern, however, they can access “n” number of sources of information by building only one link with the intermediary node. Unlike the rigid single path of the intermediary nodes in the linear information search pattern, the intermediary node in the interfaced information search pattern provides more sources of information. The more links to the sources of information the intermediary node provides, the more efficient the interfaced information search pattern should be.

Figure 2

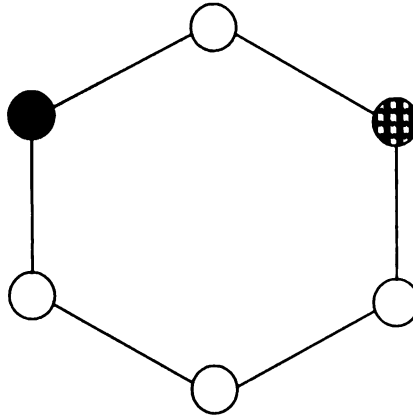


A good example to illustrate the interfaced information search pattern is the sources of information in a library. The role of a library is the intermediary node in the interfaced information search pattern. Individuals can go to libraries to seek information since libraries have collected information from various sources of information, such as newspapers, magazines and books. In other words, individuals establish just one link to a library and then reach numerous sources of information. The more collections of information a library has, the more information individuals can access.

2.1.3. Ring Pattern of Information Searching

The ring information search pattern is very similar to the linear information search pattern. Individuals need to establish links to certain intermediary nodes with links to a single source of information. For example, an individual, the up-left black node in the Figure 3, has to establish at least one link with either the top-middle node or the bottom-left node to access the source of information at the top-right corner. The difference between the ring pattern and the linear information search pattern is that the ring pattern provides one more option of direction for individuals to access the source of information. In the ring information search pattern, individuals need to evaluate the efficiency of the two paths to the end node of the source of information. If the number of links is the only criteria to test the efficiency of paths, the direction to top-middle intermediary node is a better choice than that to the intermediary nodes at the bottom side. The number of linkage of the direction to the intermediary node at the bottom side is twice of the other one to the intermediary node at top of the Figure 3.

Figure 3

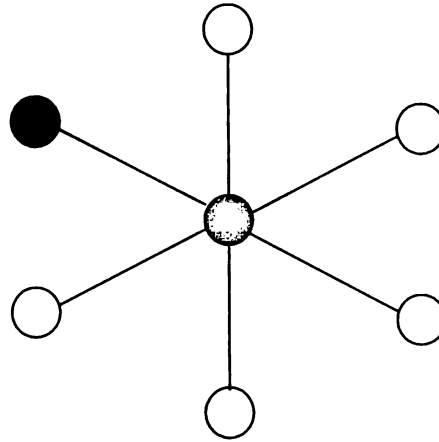


When individuals search for jobs and find information about a certain company, they can either access the source of information from the company via newspaper (the direction to the top-middle intermediary node) or their friend's friends (the directions to the bottom intermediary nodes). Apparently, they can obtain their desired information in an efficient way via newspaper under the assumption that the number of linkage is the only criteria to evaluate the efficiency of directions.

2.1.4. Star Pattern of Information Searching

The star information search pattern is similar with the interfaced information search pattern. The intermediary node in the center of the network links with sources of information (see Figure 4). It controls the flow of communication from the peripheral nodes to others in the periphery. The efficiency of the star information search pattern depends on the function of the central node and the number of links to the peripheral nodes. The higher capacity of the communication flow and the more number of links the central node provides, the higher degree of efficiency is the star information search pattern.

Figure 4



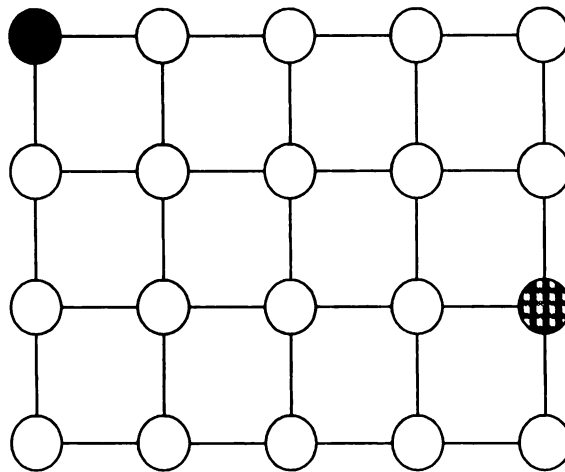
The intranet in an organization can well illustrate the star information search pattern. The central control computer (the gray node in the center of the star pattern) plays an essential intermediary role to bring individuals (the dark node at the top left of Figure 4) to various sources of information, such as organizational database, in the intranet of an organization. Its capacity of transmitting information influences the efficiency of the pattern.

2.1.5. Meshed (Distributed) Pattern of Information Searching

The meshed information search pattern is an extended structure of the ring pattern (see Figure 5). Each intermediary node in the meshed information search pattern provides at least two options of paths for individuals to access the source of information. In the ring information search pattern, individuals do only one evaluation. In the meshed information search pattern, however, individuals need to do evaluations when passing by each intermediary node. They need to make a more complicated strategy to access the single source of information here than that in the ring information search pattern. In the most efficient way, they need to pass a minimum of five intermediary nodes to access the plaid node of information source. Individuals may pass through

much more intermediary nodes to access the plaid node of information source if they do not make an effective plan. In addition, the intermediary nodes here do not necessarily function as a transferring spot. They also can be a spot of sources of information. They can help individuals to accrue information although they are not individuals' targeted sources of information.

Figure 5

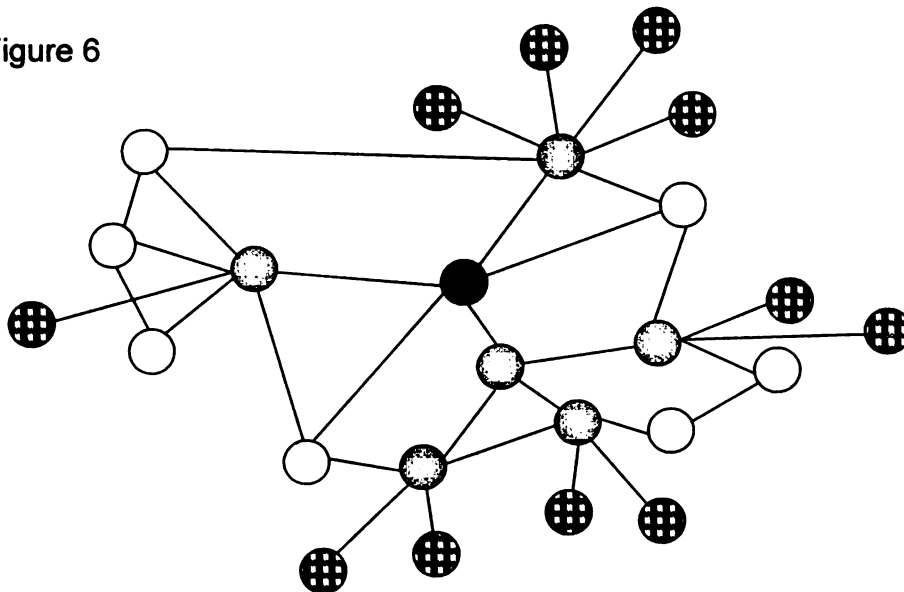


It seems that the meshed information search pattern gives individuals more options to access the source of information since each intermediary node has at least two links to other nodes. In fact, however, it requires individuals' knowledge to make strategies to reach its source of information efficiently. The situation of trial and error can happen very often but it helps individuals to become familiar with a certain field of knowledge. For example, if a student studies in the networked theories, he/she seeks his/her targeted information through various bibliographies of papers and books, such as graph theories, and professors' suggestions. He/she may often repeated passing a certain intermediary paper because of his/her lacking of knowledge. This kind of trial and error took time but helped him/her to accumulate knowledge about the networked theories.

2.1.6. Hybrid Patterns of Information Search

Hybrid patterns of information searching are a composition of the previous five patterns. Like the linear pattern, some end nodes of sources of information (plaid nodes in the Figure 6) require individuals (the dark node in the center of Figure 6) to pass through certain intermediary nodes (the gray nodes in the Figure 6). Some intermediary nodes of the hybrid pattern, like that of the interfaced pattern, provide numerous sources of information to individuals. Meanwhile, it also has the attributes of the ring pattern and the meshed pattern: the requirement of individuals' knowledge to make strategies to access their desired sources of information. The capacity of intermediary nodes, like the star pattern, is also crucial to the efficiency of the hybrid information search pattern.

Figure 6



The network of information on the Internet is the best example to depict the hybrid information search pattern. On the Internet, individuals can go directly to their desired sources of information if they know the precise address of source of information. Nonetheless, they sometime have to access sources of information under the protection of

copyright through a certain intermediate node, such as the academic papers in the database of Communication Abstracts. They also can access the sources of information referred by intermediary nodes they have visited. Moreover, they can utilize Internet search engines, as intermediary nodes, to access various sources of information. The amount of sources of information they can access from Internet search engines depends on the capacity of Internet search engines.

In reality, individuals utilize not only one of the six patterns of information searching but often apply more than one. They make decisions on the utilization of those patterns based on different circumstances and their own resources, including time, equipments, knowledge to operate communication media and so on. As those six patterns are forms of human actions, it would be interesting to explore the motivations of individuals to utilize them.

2.2 Rational Actions?

Social scientists have been exploring the motivation of human actions for a long time. A group of them believe that self-interest is the most powerful explanation for economic and other forms of social action (Monge, 2003). Since Adam Smith proposed the notion of rationality to discuss economic behavior and self-interest, those social scientists therefore assume that individuals make choices to maximize their personal utility based on rational decision-making process (Monge, 2003). In order to make rational decisions, individuals need thorough information. They seek information from diverse information sources according to different attributes of media. For example, they may learn shallow information about news events from TV and radio on their way home or to their offices. They may obtain more information from their friends. They

also can seek a depth of information from the Internet, magazines, and books. If they can obtain perfect information, they can make the best decision. The reality, however, does not always allow individuals to make the best decisions due to bounded rationality.

If individuals can not make the best decisions to maximize utility but only the most satisfying decisions within information constraints, we speak of “bounded rationality” (Monge, 2003). Bounded rationality means that individuals are assumed to have an intention of rationality but they are limited to do so due to a lack of financial and intellectual capabilities as well as scarce time and resources to consume information products (Monge, 2003). “People choose the first satisfactory or acceptable alternative that they can find rather than exploring all alternatives and selecting the best” as Monge (2003) indicated. Inasmuch, people sometimes regret their decisions when they become aware of more information after their decisions and actions.

Rationality involves the matter of “convenience” (Williamson, 1985). “Convenience” refers to the notion of efficiency: saving time and energy; acquiring the most productive result. The matter of “convenience” involves in the process of information seeking and then influences the process of decision making. To be as rational as possible, individuals tend to use a convenient media to make decisions as perfect as possible. Under the assumption that individuals’ economic and other forms of social actions are results from self-interest, they prefer to use convenient media, such as Internet search engine services, to seek information.

Compared with other patterns of information searching, the hybrid pattern is the most efficient because Internet search engines, occupying a structural hole in the previously available information gathering options, are able to generate a variety of links

to websites. The linear pattern, the interfaced pattern and the star pattern require individuals to pass through an intermediary node. In other words, individuals do not have other paths to access the end node of sources of information without passing the intermediary node. Although the ring pattern and the meshed pattern provide alternative paths to the source of information, they require individual knowledge to devise strategies for accessing sources of information efficiently. In the hybrid pattern, however, Internet search engines can automatically generate links to sources of information and bring individuals to tons of end nodes of websites full of information in a short time by simply entering key words or phrases. They save individuals' time and energy by reducing the links that individuals establish directly to various information sources. They also offer options of path to the sources of information by the list of links. Thus, individuals can acquire information as perfectly as possible. According to research by the PEW Internet project, 68% of Internet users think that search engines provide fair and unbiased information (Fallows, 2005). Moreover, 87% of Internet searchers express that they often have successful experience to find their desired information (Fallows, 2005).

2.3 Internet Search Engines and Structural Hole Theory

Internet search engines fill a structural hole in the Internet network. Burt (1995) defined a structural hole as an intermediary among unconnected nodes. Unlike websites and other forms of informational media, Internet search engines do not produce content or information per se. They produce links to websites with information. They are like travel agents who sell airplane tickets. In an intermediary position, travel agents do not offer transport services directly but they sell the service provided by various airplane companies. They facilitate the process of transaction between individuals and airplane

companies by decreasing their transaction costs of information searching, exchanging and re-enforcement. Likewise, Internet search engines also save the cost of information search from the possible redundant links between individuals and end nodes of websites via technologies, such as the PigeonRank¹ developed by Google. If an individual wants to learn information about the presidential election from their personal contacts and newspaper, for example, he/she has to establish links to his/her contacts and newspaper respectively. Nonetheless, the individual can save not only information searching cost with regard to the previously used sources but it can gain access to a much broader range of information if he/she uses Internet search engines. Internet search engines are able to generate more links to sources of information than he/she thought after he/she enter a key word or phrase. In a word, individuals only need to establish a link to Internet search engines and then Internet search engines will generate tons of links to websites with information.

It is efficient if individuals utilize Internet search engines for information searches. In his book *Structural Holes*, Burt (1995) established two criteria—cohesion and structural equivalence—to evaluate the efficiency of the effective network. He distinguished cohesion from structural equivalence by the attribute of direct connectivity (Burt, 1995). Cohesion is an indicator of direct connection between two structural holes. According to the criterion of cohesion, two nodes connected with a strong relationship are redundant (Burt, 1995). Meanwhile, Monge (2003) pointed out that the more communication activities between two nodes exist, the less information flow between them by time. If two nodes increase communication they will eventually share common

¹ The working principle of the PigeonRank is to bring individuals to the end nodes of website based on their popularity by incoming clicking rate. ("Google searches more sites more quickly, delivering the most relevant results", nd.)

information and thus may become less willing to communicate with each other. It suggests that individuals can acquire more information from diverse sources of information rather than tracking information from a single source of information. In addition, structural equivalence is the other index to exam the efficiency of the information flow in an indirect connection by mutual contact (Burt, 1995). The more efficient the information in an indirect connection is, the less redundant nodes in the indirect connection it should have (Burt, 1995). In terms of redundant nodes, two connected nodes have similar or even the identical sources of information by the extent that they have similar or even the same contacts (Burt, 1995). In an efficient-effective network, individuals should establish links with secondary structural holes connecting with other various ones (Burt, 1995). From this analysis follows that it is more efficient for individuals to establish links with Internet search engines (which are a form of secondary structural holes), which have many connections with various websites, which in turn are full of information, than to they establish direct links with certain sources of information. They can acquire comprehensive information on the Internet because Internet search engines can take them to various sources of information provided by different organizations. Nonetheless, the information they get, for example, from a newspaper and a news website which belongs the same news organization with the newspaper they have read, is limited. The content of online news is often exactly the same as that of newspaper because news organizations often only transform the content of news from newspaper to online news.

Furthermore, “the sparse network provides more information benefits,” Burt (1995) suggested. Compared with a cohesive network, the sparse network has more structural

holes and fewer redundant nodes. He identified three forms of information benefits: access, timing and referrals (Burt, 1995). The benefit of access means that individuals have opportunities to receive valuable information and know who can use it (Burt, 1995). They have great opportunities to access various sources of information and acquire the desired information via Internet search engines which provide an information-rich platform. Via other online delivery services, such as e-mail, they also can transfer information to someone who they think needs it. In other words, Internet search engines enhance the degree of accessibility for individuals. In terms of timing, it is better for individuals to obtain information early on to make a better bounded-rational decision (Burt, 1995). Compared with looking for information via direct links to end nodes of sources of information, individuals can acquire information in a shorter time by Internet search engines which can quickly generate tons of links to end nodes of source of information. The last information benefit of referrals stands for the high degree of correct engagement between two end nodes (Burt, 1995). For example, the Google is popular because it is able to generate high degree of correct engagements between individuals and information sources (McGann, 2005). Individuals can take advantage of it by entering a key word of their desired information and acquire the information from websites through links generated through Internet search engines. They may not obtain the exact information they want, however, if they search information directly from end nodes, sources of information. They do not have Internet search engines to filter out the undesired information.

Internet search engines are able to provide a sparse network to individuals. They can improve individuals' bounded-rationality by its ability to extend their information

network through the structural hole on the Internet. Thus, individuals can extend their information network, by accessing increasingly diverse sources of information, to process rational decision-making and acquire more satisfaction.

It is not surprising that the hybrid information search pattern emerged as the most widely use for Internet search engines. According to the PEW Internet project 32% Internet searchers can not live without search engines and 55% of Internet searchers find both important and personal information via search engines (Fallows, 2005). Moreover, 56% of Internet users employ search engines everyday (Fallows, 2005). Another statistic also demonstrates that most of Internet searchers use multiple search engines (McGann, 2005). The new emergent hybrid information search pattern did not appear suddenly. It is a result from a co-evolution of individuals' knowledge, information technologies and investment of website owners.

2.4 Not Just an Evolution but a Co-evolution

The hybrid information search pattern on the Internet did not emerge suddenly by individual actions only. It is an evolutionary outcome of every participant's choices in the information network, including individuals, Internet search engines and websites with information. In order to utilize Internet search engines efficiently, individuals need to be equipped with knowledge to operate them. Hargittai (2004) indicated that many people still lack knowledge to operate the Google. Also, Sullivan (2001) stated that understanding "search engine math", such as "using the + symbol to add" conditions for searching information, can improve results. Filling the structural hole of an intermediary between two end nodes of individuals and websites of information source, Internet search engines also need to keep enhancing their quality of engaging services to

satisfy individuals' and website owners' desire of maximizing profits. The development of website services is necessary as well. Without it, individuals would not be able to enlarge their information network to improve their bounded-rationality by using Internet search engines. The three participants in the hybrid information search pattern are interdependent. Even a small transition in one of them would cause a transition in the others.

The emergent hybrid information search pattern on the Internet is a tightly coupled system, not a loosely coupled one. Its three participants have strong dependency on the others. Both owners of websites and Internet search engines pursue their profit by their increasing number of users so they have to update their services by users' growing requirements. Individuals also rely on them to expand their information network. Thus, they need to keep learning know-how to obtain information by using Internet search engines, in order to make their most satisfied decisions by information. Those three participants evolve interdependently because they need to outsource from the others. In such a tightly coupled system, a complexity should be inevitable in the hybrid information search pattern since any of participants' change will cause another change to the others.

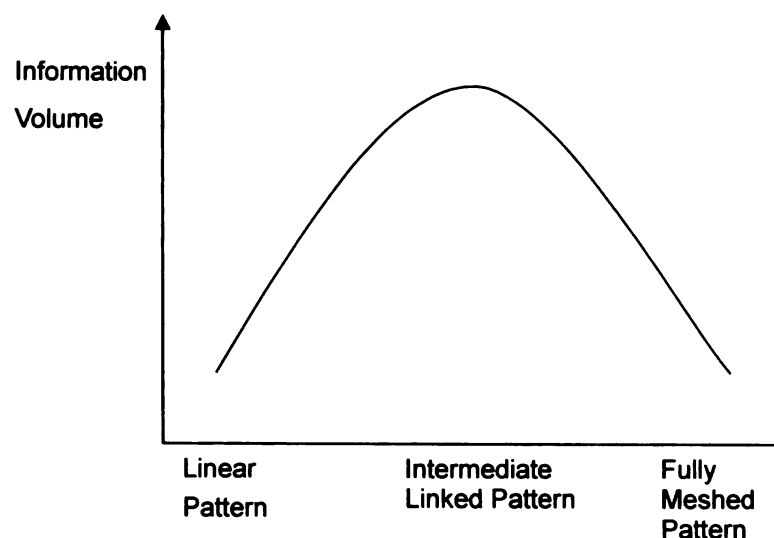
2.5 Conclusion

As discussed, the hybrid information search pattern provides a higher volume of sources of information than other patterns. It has advantages over the interfaced pattern in which intermediary nodes enabling individuals to reach diverse sources of information (See Figure 7). The linear pattern and the meshed pattern, however, have only one source of information. Meanwhile, it also has the deficit of the meshed pattern: the need

of making strategies to access source of information efficiently. Individuals may still face trial and error in the hybrid pattern but their knowledge to operate the intermediary nodes, such as Internet search engines, can improve searching results. The information network in the hybrid pattern is sparser than that in other patterns so that it grants more information benefits, including access, timing and referrals, to individuals. Therefore, individuals prefer the hybrid pattern in order to acquire information as perfectly as possible and make bounded rational decisions for maximizing their self-interest.

The emergence of the hybrid information search pattern is a result of co-evolution of individuals, Internet search engines and websites. It requires individuals' knowledge to employ the Internet and the developments of Internet search engines and websites. The hybrid pattern is a tightly coupled system. Each participants (individual, Internet search engines and websites) here are interdependent. While Internet search engines and website enhance their functions of engaging and information variety, individuals need to advance their ability not only to utilize the Internet but also to process large amount of information, including the ability to select reliable and useful information.

Figure 7



Chapter 3

Previous Research Literature: A Brief Review

The emergence of the hybrid information search pattern is a collective result from the interdependent evolution of the Internet search engines, individuals and websites. In the online news market, not only news websites but also Internet search engines, such as Google, Yahoo and MSN, provide news service. In order to understand the relationships among the three participants of the hybrid information search pattern and the impact of the Internet search engine news services on the online news market, an understanding of Burt's (1995) structural hole theory through debates between theories of social capital and structural hole for relationships among organizations is helpful. While Burt suggested that a sparse network is better than a cohesive network for the innovation of organizations by increasing information, the theory of social capital argued that a cohesive network is better than a sparse network for organizations to obtain emergent assistance because of organizations' reputation in the cohesive network. Although none of the debates discussed the information network and the relationship among news media, they are useful to highlight important features of the relationship among the participants in the hybrid information search pattern, such as whether a sparse network or a cohesive network is better for individuals to learn news and whether Internet search engine news services fill structural holes in the online news network. In addition, previous studies concerning news media economy, the online journalism and online news business models should be advantageous to get the picture of the news products characteristics and the online news market. The literature surveyed in the following paragraphs is intended to provide background knowledge for the thesis.

3.1 Debates between Theories of Structural Hole and Social Capital

A substantial body of literature has established that organizations enhance their

competence by increasing their social capital in cohesive social networks and then increase their social capital by fostering their connections with structural holes. In the five phases of organizations' evolution: emergence, early growth, later growth, maturity and possibly often death, Hite and Hesterly (2001) discovered that organizations, in the emerging phase, need cohesive social networks to acquire needed resources, especially for financial sources. Since emerging organizations lack visibility and credibility, distant ties are not willing to help them but embedded ties, such as relationships of family and friends, are willing (Hite and Hesterly, 2001). In addition, they are also likely to have limited information searching ability and rely on embedded ties very much (Hite and Hesterly, 2001). When organizations transit to the early growth phase from the emerging phase, they tend to move to sparse networks from dense networks (Hite and Hesterly, 2001). They need structural holes in sparse networks to extend their social capital to acquire diverse information and enhance information flow (Hite and Hesterly, 2001). Consistently, Steier and Greenwood (2000) found that the greater efficiency, in finance, of the sparse network, the greater the risk is from dependency, and organizations tend to avoid risk from dependency by cohesive networks or by giving attention to increasing the strength of the ties. The strength of ties, however, is hard to process network reconfiguration for organizations (Steier and Greenwood, 2000). Singh, Hybels and Hills (2000) also demonstrated statistical evidence to support Burt's theory of structural hole: the larger network size is better to entrepreneurs to identify new venture ideas and recognize new opportunities. They proposed that using contacts in social networks may, as well, be effective to reduce the liability of newness during the process of opportunity recognition (Singh *et al*, 2000).

The size of the social network, however, does not always mean social capital. “A social network does not translate automatically into social capital,” Baker (1999) said. He raised Ben Van Shaik’s mistake (a CEO of the Dutch aircraft maker with large scale social networks consisted of small and resource-poor companies) as an example to explain that “social capital depends on the resources of the people and organization in the network, the configuration or structure of the social network and the strategies used to tap these resources (Baker, 1999). Furthermore, Jones (2005) provided some insights in middle managers and organizational innovation of manufacturing industry. He distinguished two types of middle managers: corporate entrepreneurs (CEs) and intrapreneurs (Jones, 2005). CEs can exploit structural holes to benefit organizations by facilitating access to information and resources, and aid coordinate task interdependencies (Jones, 2005). Therefore, CEs are more able to process organizational innovation than intrapreneurs.

Some research, on the other hand, found that numerous structural holes are inferior to organizational innovation. A longitudinal study in the chemicals industry showed that having many structural holes is related to reduced innovation output and having many direct ties reduces the impact of indirect ties (Ahuja, 2000). Although direct ties and indirect ties are beneficial, they require organizations’ capability of absorbing and acting on the information (Ahuja, 2000). Thus, organizations with many indirect ties may not profit from structural holes as well as organizations with fewer direct ties (Ahuja, 2000). Another empirical study in the Spanish tile industry found that the territorial agglomerations of organizations benefit in facilitating the creation of value from interaction with local institutions that have many external ties and undertake research

projects with local organizations (Molina-Morales, 2005).

The theory of small worlds moderates the two extreme streams of arguments (Verspagen and Duysters, 2004). The small worlds are efficient in exchanges of knowledge and the evaluation of the optimal configuration of ties within cohesive networks and structural holes (Verspagen and Duysters, 2004). Specifically, structural holes boost organizations' further performance and urge organizations to develop network-enabled capabilities (Zaheer and G. Bell, 2005). Not only structural holes, but also organizations' innovative capabilities, are associated with an organization's strengthened performance (Zaheer and Geoffery, 2005). In sum, the networks rich in structural holes provide flexibility and the cohesive networks provide the safety of cooperation (Gargiulo and Benassi, 2000).

In addition to research based on the structural hole theory at the organization-level, several researchers applied the theory of structural hole to the interpersonal level. Burt, Hogarth and Michaud (2000) compare French and American managers according to the structural hole theory. They discovered that both successful French and American managers have networks rich in structural holes (Burt *et al*, 2000). They are successful because structural holes provide them with a lot of diverse information to enhance their competence. Large, sparse and task-advice networks have been empirically proven to be helpful for the exploratory learning (Rhee, 2004; Janicik and Larrick, 2005). Moreover, American and French managers have similar differentiation in types of relationships, and their colleague relations that bridge structural holes are separated from the regular work activities in the same way (Burt *et al*, 2000). The main difference is that American managers have a larger range of contacts and they have positive emotions to their bridge

relationships but the French managers have a less porous social boundary around their organizations and associate negative emotions with structural holes (Burt *et al*, 2000).

3.2 The Economy of News Media

After reviewing current research addressing the relationships among organizations and people based on Burt's theory of structural holes and related theories, it should be beneficial for us to think about the relationships among people, online news media and Internet search engine services. In order to explore the impact of the Internet search engine news services on the online news market, it is necessary to be familiar with how special the news market is. The news market is composed of two interdependent markets of reader/audience/online users and advertising. Different types of news media are assumed to be independent, under the assumption that news products are monopolistically competitive according on media attributes. News products are mainly differentiated as newspapers, news magazines, radio news, television news broadcast and online news.

Different types of news media retain their audiences/readers/users based on their attributes of visual, spoken and written content, and function to satisfy the needs of readers/audiences/users (Lacy 1989; Dimmick, Chen and Li, 2004). Online news users, TV news viewers (including broadcasting and cable) and the audience of radio news have a high requirement on time. (Dimmick *et al*, 2004) Online news users and readers of newspaper and news magazines tend to learn news in depth (Dimmick *et al*, 2004). After investigating online news users' use and gratification, Dimmick *et al* (2004) discovered that online news has more niche breadth than traditional news media. He also found that the more often participants learned news from news websites, the less

likely they learn news from traditional news media, especially from cable TV news and broadcasting news (Dimmick *et al*, 2004; Schiff, 2003). Online traffic can be improved by increasing breaking news. (Wu and Bechtel, 2002) Online news users often seek story topics about international politics, education, and science and technology (Wu and Bechtel, 2002). Moreover, Dimmick's findings may support Doyle's (2002) statement, "technology is a major force affecting the economics of the media," and Owen's and Wildman's (1992) economic analysis that the new media share the news markets with the incumbent news media.

In addition, the economic characteristics of television/radio news broadcasting and newspaper/ news-magazine publishing are also different due to their different structures of distribution channels. Television/radio news broadcasters are unable to identify the audience after transmitting their news content via air waves, so they are unable to charge the audience for their services (Doyle, 2002). They make a profit from producing audiences and selling the size of the audience and its demographic characteristics, such as the age, gender and income (Owen and Wildman, 1992). Their products are measured in dimensions of people and time (Owen and Wildman, 1992). Newspaper and magazine publishers, on the other hand, have two income sources: readers and advertisers (Doyle, 2002). They sell news and advertising information to subscribers by charging a small fee for covering printing cost (Doyle, 2002). Their major income is from the market of advertising (Doyle, 2002).

The news market is monopolistically competitive (Lacy, 1989; Powers, 2001). Chamberlin (1933) defined monopolistic competition as markets where numerous organizations sell similar but differentiated goods. The players in a monopolistically

competitive market compete with others based on not only pricing strategies but also brands, advertising, sales promotion and the quality of goods (Burke, 1991). Non-price competition plays an essential role, especially for information goods. Credibility involves monopolistic competition in the news markets. The credibility of news organization represents if the news is convincing, believable and biased (Beaudoin, 2002). Individuals, in general, are not willing to consume news products without credibility. Credibility is the foundation of the brand name of news organizations while news organizations process monopolistic competition. The brand name of news organizations is an index for people to grant news certain degree of trustiness, especially for online news (Greer, 2003). People usually are unwilling to consume news with low credibility. Moreover, the credibility of news varies by different media channels (Rimmer and Weaver, 1987). TV news is more credible than newspapers (Carter and Greenberg, 1965; Westley and Severin, 1964). Carter and Greenberg (1965) indicated that people believe TV news more because of its visual nature. Westley and Severin (1964) proved that people believe TV news more than other news media, especially in the news coverage of natural disasters. Kiouisis (2001), however, discovered that newspapers are more credible than online news and TV news, though people are usually skeptical of news from those three media. Cross-media presentation of news is helpful to enhance the credibility of on air and online news (Bucy, 2003). Also, Shapiro and Vairan (1999) suggested that news media organizations should differentiate their products by adding value to raw materials and achieve cost leadership by extending economies of scale and scope. Theoretically, news organizations differentiate their products according to geographic focus and story topics, and enhance their competence by improving news

content (Lacy, 1989). Newspaper organizations, for example, usually sell their news products to readers below the producing cost, in order to increase the number of readers, and gain profit from the advertising market. In the below-cost competition, newspapers survive because they are able to differentially attract local advertising (Schiff, 2003). A comparative research on the U.S and German newspaper also demonstrated that clearly structuring the content, local orientation and an airy design with visualizing information are the major elements to make newspapers successful (Schoenbach, 2004). The cost of news products is fixed (Shapiro and Vairan, 1999). Although the variable cost may be slightly varied by different distributing channels, the major cost is still to produce news content (Shapiro and Vairan, 1999). Thus, increasing volume by reusing and reselling news content can reduce average cost (Shapiro and Vairan, 1999). Most news organizations have transformed their news product to the Internet from offline context and developed different business models as a way to develop the economies of scale and scopes (Marek Deuze, 2001).

The Internet is a great source of news because it is available twenty-four hours a day and online users can learn news at anytime (Wu and Bechtel, 2002). Deuze (2001) indicated “three key characteristics of networked computer environment that news organizations operate in: hypertextuality, multimediality and interactivity.” Online news can be linked to relevant others, including textual, visual, audio and video news content. They are internally or externally interconnected through links (Deuze, 2001). There are two types of hypertextuality: opening up content and spiraling down content (Deuze, 2001). The characteristic of interactivity allows online news users to navigate content under their control to forward news by e-mail and to express their opinions (Deuze, 2001).

Unfortunately, most news websites have not well exploited the characteristic of interactivity (Deuze, 2001). Kenney, Gorelik and Mwangi (2000) investigated one hundred online newspapers in the U.S and found that online newspapers had very low interactivity features whether they were funded by profit or non-profit organizations and whether they are pure web-based or not. Gerpott and Wanke (2004), however, discovered empirical evidence that the interactivity of online newspapers is helpful to stimulate users' site-usage frequency and intensity.

Based on the three major characteristics of hypertextuality, multimediality and interactivity, Deuze (2001) developed four innovative typologies to distinguish online journalism as Mainstream news sites, Index and Category sites, Meta and Comments sites, and Share and Discussion sites by two dimensions of the content-connectivity domain and the participatory communication domain (See Figure 8.). The Mainstream news sites, such the NYTimes.com and the CNN.com, are the most common form of online news services (Deuze, 2001). They often provide online news content primarily transformed from offline news products, though the online news content has been edited to meet with online multimedia context (Deuze, 2001). They also operate on internal hypertextuality with mainly navigational interactivity (Deuze, 2001). The Index and Category sites include search engines (such as Yahoo and Google), marketing research firms or agencies (like Newsindex), and enterprising individuals (like Paperboy) (Deuze, 2001). They often operate on external hypertextuality with mainly navigational interactivity, but they have very few and even zero multimedia content (Deuze, 2001). The Meta and Comments sites, such as Mediachannel, are like media watchdogs and have content regarding news media and media issues (Deuze, 2001). They focus less on

multimedia content and more on functional interactivity (Deuze, 2001). They often offer areas for chatting or exchanging information, tips and external links by online users (Deuze, 2001). The Share and Discussion sites, such as Slashdot, primarily facilitate platforms for exchanges of ideas, stories and so on (Deuze, 2001). Their content is mostly based on texts (Deuze, 2001). They operate on both external and internal hypertextuality with adaptive interactivity to customize users (Deuze, 2001).

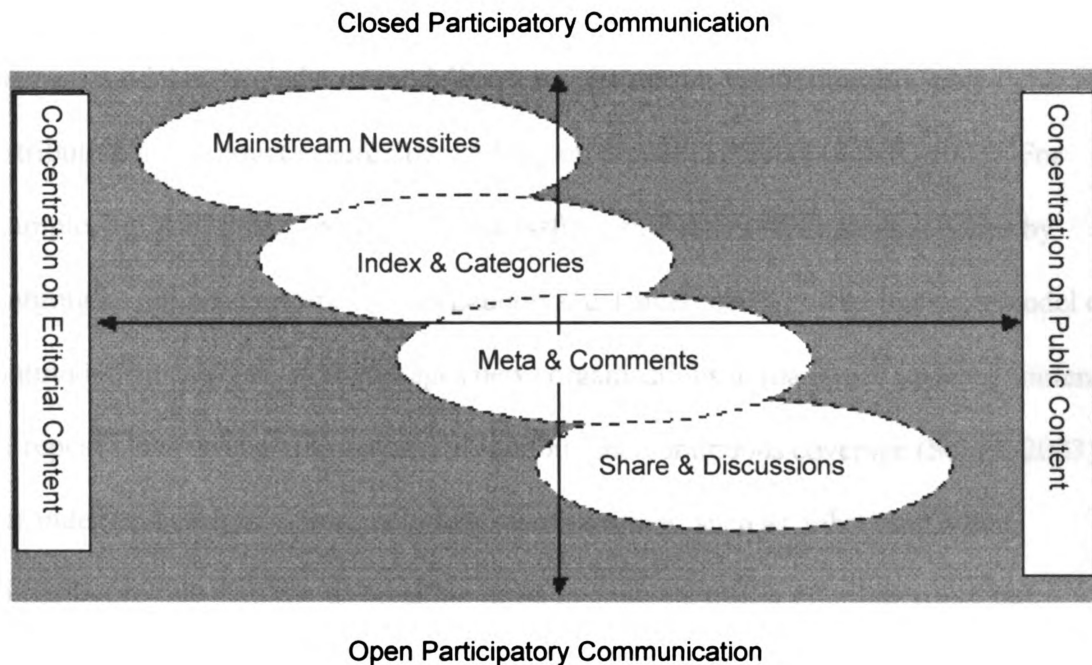


Figure 8: Online Journalisms
(Source: Deuze, 2001)

Schiff (2003) also created eight typologies to summarize his findings in business models of news websites: Advertising revenue, Online traffic, Infant industry profits and stock values, Digital content delivery, Continuous breaking news, Information retrieval and storage, Portal conduit and Interactive networking. The first three models focus on performance outputs (Schiff, 2003). Based on the Advertising revenue model, news organizations maximize profit by delivering the audience to advertisers (Schiff, 2003).

They can also apply the online traffic model to optimize upscale online users by unified medium of communication (Schiff, 2003). The Google news and Yahoo news, for example, exploit primarily the Online traffic model and the Advertising revenue model. The main purpose of the Internet industry profits and stock values is to optimize investors' equity, earn growth, monopoly profits and stock market price appreciation by decreasing production/distribution costs with size, high risks and value fluctuations (Schiff, 2003). The following five models focus on input content characteristics (Schiff, 2003). The business model of Digital content delivery suggests cross-promotion, low-cost distribution and product synergy by working on digital platforms (Schiff, 2003). For example, the Wall Street Journal has successfully sold their online news services by charging an online subscription fee (Laudon and Traver, 2002). The business model of continuous breaking news encourages news organizations to maximize updated content for repeat visits through immediate, ubiquitous and continuous coverage (Schiff, 2003). The index and category sites, including search engines, such as Yahoo and MSN, primarily provide continuous breaking news to generate traffic of online users and advertising revenue. Under the Information retrieval and storage model, news organizations can establish low-cost storage, searchable and hypertextual databases to optimize access and rewriting of texts and images from any historical period, culture or geographic region (Schiff, 2003). Most mainstream news websites archive news database and resell old news to online information seekers. News organizations can also optimize external links to organizations and communities by taking advantage of brand named central site, broadband capacity and end user pull through wired, wireless or satellite networks, according to the Portal conduit unit (Schiff, 2003). Moreover, they

can apply the interactive networking model to maximize communities of interest and tunnels/blinders of selective exposure through personalized services and customizing links (Schiff, 2003).

After reviewing four types of news sites and eight online news business models, it is obvious that news organizations still maximize profit from two interdependent markets: numbers of online users and advertising. “If you can not sell to the audience, sell the audience,” Felix Stalder stated (1999). Although the Internet helps news organizations expand their supply, Small (2000) wondered if the Internet also nurtured the demand side. Also, there is a potential channel conflict between online and offline news services while news organizations extend the economies of scale and scope to the Internet (Laudon and Traver, 2002). The online news market, unlike the offline news markets, has not established a reliable mechanism to tradeoff in either the market of online users or the market of advertising (Laudon and Traver, 2002). In addition, the online news has a converging market structure through Internet search engines.

Internet search engines have become a new player in the online news market. The three most popular search engines—Google, Yahoo and MSN—have expanded their services to online news market for years. Google has launched news services since September 23, 2002 (Ojala, 2002). Yahoo developed news services a year earlier than Google (O’Connell, 2001). MSN was first to offer online news business. Microsoft has offered news without charging on MSN by cooperating with the broadcast network NBC, its local affiliate networks and other partners since 1996 (Lewis, 1996). In addition, more than half of the online users tend to learn news from Internet search engines (Fallows, 2005; Greenspan, 2004).

“Search engine providers regard their search algorithms as commercial secrets, so you usually only receive hints about which elements are weighted highly,” Sheila Webber (1998) stated. Webber’s (1998) statement may still be relevant to the Internet search engine news services. For example, it is still unknown how Google News selects and aggregates news. Many questions, such as what and how Internet search engine news services impact the online news market, still wait for answers. The remainder of this thesis is dedicated to exploring the specific architecture and topology of leading search engine’s news sites.

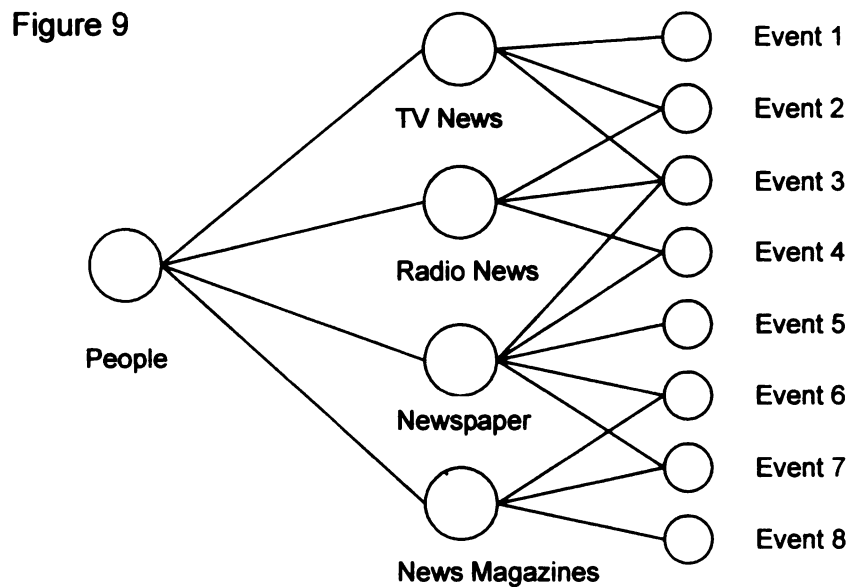
Chapter 4

Search engine services and the structural holes in Internet news

Considering the fact that an increasing number of people use search engines for news and that the top three popular search engines—Google, Yahoo and MSN—also provide news services, it seems that search engines—functioning as aggregators—occupy an essential position in the network of Internet news (McGann, 2005; Ojala, 2002; O’Connell, 2001; Lewis, 1996). They function as a portal and influence the traffic of online users accessing news websites (Sheila Webber, 1998). The news market tends to be monopolistically competitive (Lacy, 1989; Powers, 2001). News organizations compete with others primarily by their quality of news products, their brands and sales promotion. They differentiate their news products as several sections of TV news, newspaper, radio news, news magazines and online news based on media attributes to meet people’s different needs of news information (Lacy 1989; Dimmick *et al*, 2004). In those differentiated markets, people consume news products based on two major information search patterns. Under the frame work of Burt’s (1995) structural hole theory, the relationship between people and TV news/newspaper/radio news/news magazines is different from that between people and the online news.

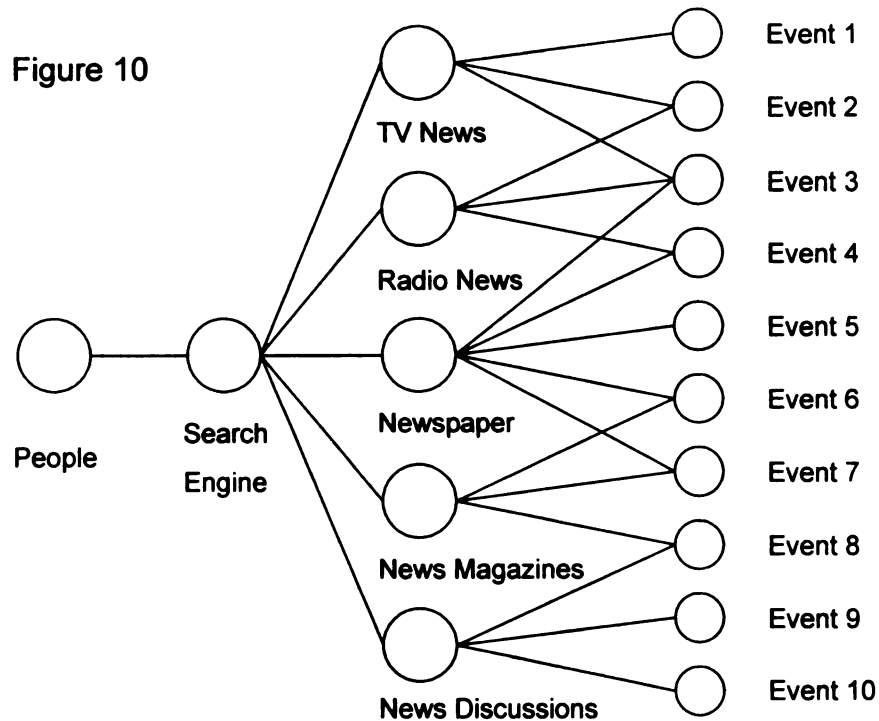
People learn news from traditional news media, including TV news, newspaper, radio news and news magazines, through individual and unconnected links (See Figure 9). People turn on televisions and access TV news. They also can turn on the radio to learn news from news radio stations. If they are interested in certain news topics, they can open and read newspapers or magazines. On the ways to access TV news, radio news, newspaper and news magazines, there may be no connection among those four news media. In general, people may not turn on televisions to access radio news stations and vice versa. While they are reading newspaper, they are unable to read news magazines

at the same time and vice versa. They also can not read information about certain topics in depth by accessing newspapers instead of more specialized news magazines. Those four news media may have overlapping information about news events. For example, the event 2, 3, 4, 6 and 7 in the Figure 9 are repetitively reported by different news media.



People learn news from Internet search engines through a link to different news websites (see Figure 10). Internet search engines function as aggregators for both information search services and news services. Whether people enter a key word to learn a certain news topic in depth or access Internet search engine news services, they can obtain text, visual, audio and video news content on the news websites by clicking links listed on Internet search engines. Those websites include online news provided by TV news, newspaper, radio news and news magazine organizations, and news

discussions offered by people and institutions. They report different events though they have overlapped information about some events. It seems that Internet search engines occupy a structural hole in the news information network on the Internet.



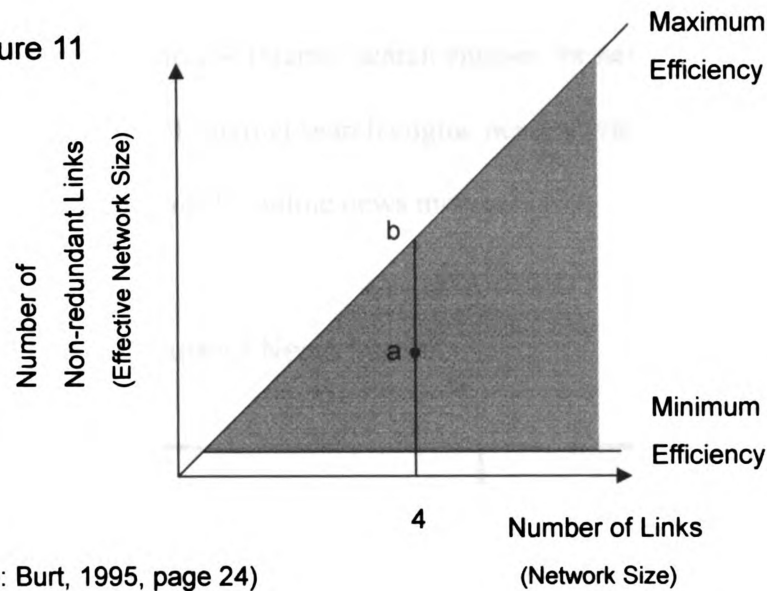
Internet news search engines do not produce news content but they fill in structural holes and aggregate online news. Structural holes are the intermediaries between two unconnected nodes (Burt, 1995). Representing such structural holes, Internet news search engines save online users' time, and provide effective-efficient and dependable news links. In the online news network, users and news websites are often not connected, unless users know and access the online addresses of news websites directly or news websites have users' e-mail address to distribute news content to subscribers.

Most online users, however, are not familiar with the online addresses of news websites so it is difficult for them to access news websites directly. News websites also distribute online news content based on the information offered by online users. For convenience, including time and energy savings, online users tend to use Internet search engines to look for news information. The PEW Internet project mentioned above found that 55% of online users exploited Internet search engines to learn news information everyday (Fallows, 2005). Internet search engines fill structural holes with functions of information accessing, timing and referrals, in the online news network. They help online users acquire valuable pieces of information by ranking popularity of information sources or assessing the value of news in a short time. Dayton (2005) stated that both Yahoo and Google are news aggregators. They do not produce original news content but package the work of other online news websites (Dayton, 2005). For instance, Google developed the technique of PigeonRank to provide search results according to the hitting rates of websites ("The technology behind Google's great results", nd). Internet search engine news services also provide instant and updating news with quality. For example, the Google news announced that their news service now carries more news from news sources with high reputation than news date and relevance to terms. (Fox, 2005)

The news information volume, based on Burt's structural hole theory, increase up by the number of structural holes in the Internet network. It is associated with two general senses of efficiency and effectiveness (Burt, 1995). The degrees of efficiency depend on the number of non-redundant links. It is redundant if there are more than two links to the same news web pages. The degrees of effectiveness rely on how people

utilize structural holes to expand the online news network. It is an effective news network if people learn news through portals, such as Internet search engines. Internet search engines are portals which aggregate links to news websites in the online news network. Therefore, the online news network size is likely to be larger if people use Internet search engine than if people do not use Internet search engines. Figure 11 portrays the relationship between the size of online news network, efficiency and effectiveness (Burt, 1995). The vertical axis represents the number of non-redundant links and the horizontal axis stands for the number of links (Burt, 1995). The news network size increases along the horizontal axis (Burt, 1995). The effective size rises up the vertical (Burt, 1995). The news network size can be anywhere in the gray zone (Burt, 1995). The maximum efficiency line depicts news networks in which links are totally non-redundant (Burt, 1995). Effective size means actual size (Burt, 1995). Efficient-effective networks stand on the line up to right (Burt, 1995). The minimum efficiency line illustrates completely redundant links within networks (Burt, 1995). For example, if people establish four links to different internet search engines, their news network size is likely to fall on the point b since internet search engines aggregate links to news websites. If people access four different news media without using internet search engines, their news network size is likely to fall on the point a since different news media may access same events.

Figure 11

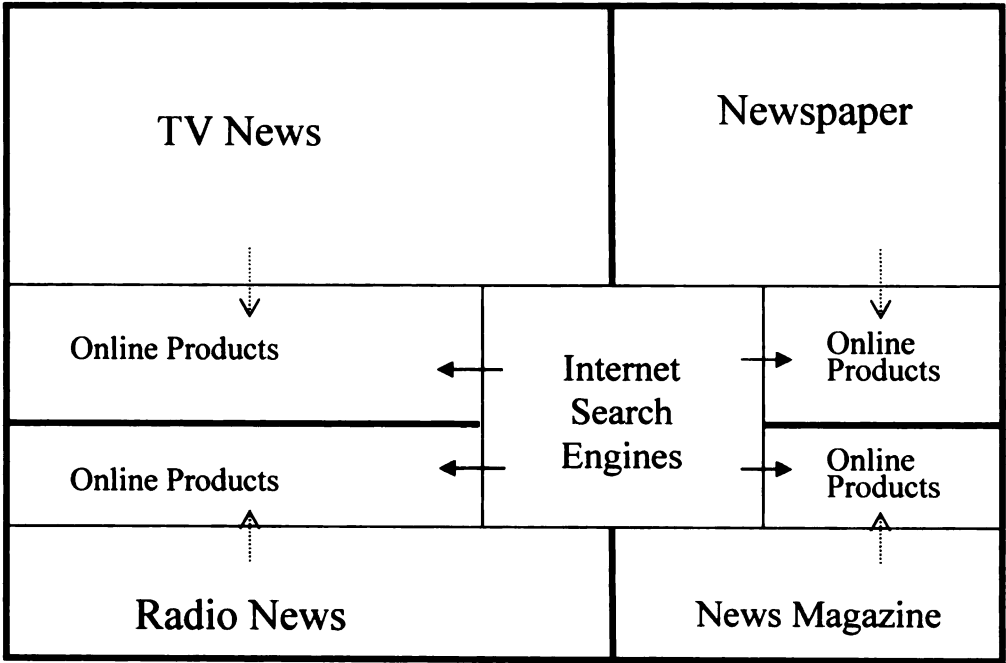


(Source: Burt, 1995, page 24)

It seems that the online news market structure is different from offline news markets because Internet search engines occupy a structural hole in the online news network and influence the traffic of online readers to news websites. Figure 12 illustrates the monopolistic competition of news markets. Players in the four offline markets—TV news market, newspaper market, radio news market and news magazine market—are news organizations. They compete with others by their news products, the news content they produce originally. For the extension of the economies of scale and scope in a low cost, they primarily transform their offline news products into digital forms to develop online news services (Shapiro and Varian, 1999). They also encourage their offline consumers to go online and consume their online products. For example, TV news programs may tell their viewers to go to their websites for more news details. Since the news service of search engines function as aggregators by their news services and searching services, in the online news market, they relocate the traffic of

online users accessing news websites to consume online news products. Considering more and more people tend to use Internet search engines for news, I want to explore a question: what is the effect of Internet search engine news services on the online news market and what the picture of the online news market is like.

Figure 12 The Structure of News Market



Chapter 5

The Organization of Internet News Search Engines

No previous studies have explored the relationships between Internet search engine news services and news websites. This lack of preliminary studies should require a qualitative research method rather than a quantitative one. The study proposes research questions: what is the effect of Internet search engine news services on the online news market and how the different designs of Internet search engine news services influence the online news network.

5.1 Research Method

In order to answer the question, the research method of case studies should be the most proper approach. The Google, Yahoo and MSN news services should be the representative cases because their search engine services are the most popular (McGann, 2005). In addition, the case study research method provides a big advantage of collecting a wealth of information in detail about a topic (Wimmer and Dominick, 2003). This study involves two phases of observation: first, an observation of the structures of the three search engines' news services; and second, a comparison of their content with regard to news packaging, geographic focus, and news sources.

The purpose of the first phase of observation is to explore the structure of the Google, Yahoo and MSN news services. Their structures shape the traffic of online news readers and the potential impact of the three search engine news services with news websites. To guard against one-time aberrations, it was decided to observe and document in detail the three search engine news services for three times on different dates. The first observation, done on October 11 and 12, 2005 was very detailed and intended to provide an overview of the structures of the three news services. The second observation on October 19, 2005 was intended to check whether there were any changes

in the structures found during the earlier observation period. A third observation on October 24, 2005 likewise was designed to check whether the earlier structures were stable. Spacing out the three observations does not only guarantee stability for the research result but also assures accuracy of the research result.

The goal of the second phase of observation was to compare the Google, Yahoo and MSN news contents and to describe the information formation flow in the three search engine news services. The geographical focus serves as an easy-to-determine indicator to compare their news content. Traditionally, the geographical focus is the indicator used to define if a news medium is global, national or local. In addition to media attributes, news organizations often differentiate their products according to geographic focus (Backlund and Sandberg, 2002). The term of geographical focus is defined as the geographic area in which the topic occurs. ("Project for Excellence in Journalism", nd). Moreover, the news sources suggest where news information is from and what the picture of the online news network is. Due to the time and financial constraints of a MA thesis and the enormous richness of the sites, this study only sampled the front page of the world news sections in the Goggle, Yahoo and MSN news services. The world news section recruits news most possibly about different geographical focus and from diverse news sources. The Yahoo and Google news services update their news very frequently. In order to capture complete data, a pilot study was conducted to design a well-round procedure of data collection. Then, two observations were spaced out in two weeks. Data were encoded into spread sheets immediately after collecting data to avoid any missing news sources problems. The Google world news service only presents the news sources from news websites. Thus, it was necessary to click every link to the news

websites in the front page of the Google world news for primary sources. If the news websites linked from the Google world news service did not display the news primary sources, the news contents are assumed to originate from those news websites. Finally, descriptive statistics were computed to compare the Google, Yahoo and MSN world news contents and to explore their news flows.

The findings of this study reveal interesting patterns. While the sample size may be too small, it illustrates important organizational features and should provide material for further research. The findings are also rich enough to derive first insights as to the effect of internet search engine news services on the online news market in general.

5.2 Findings

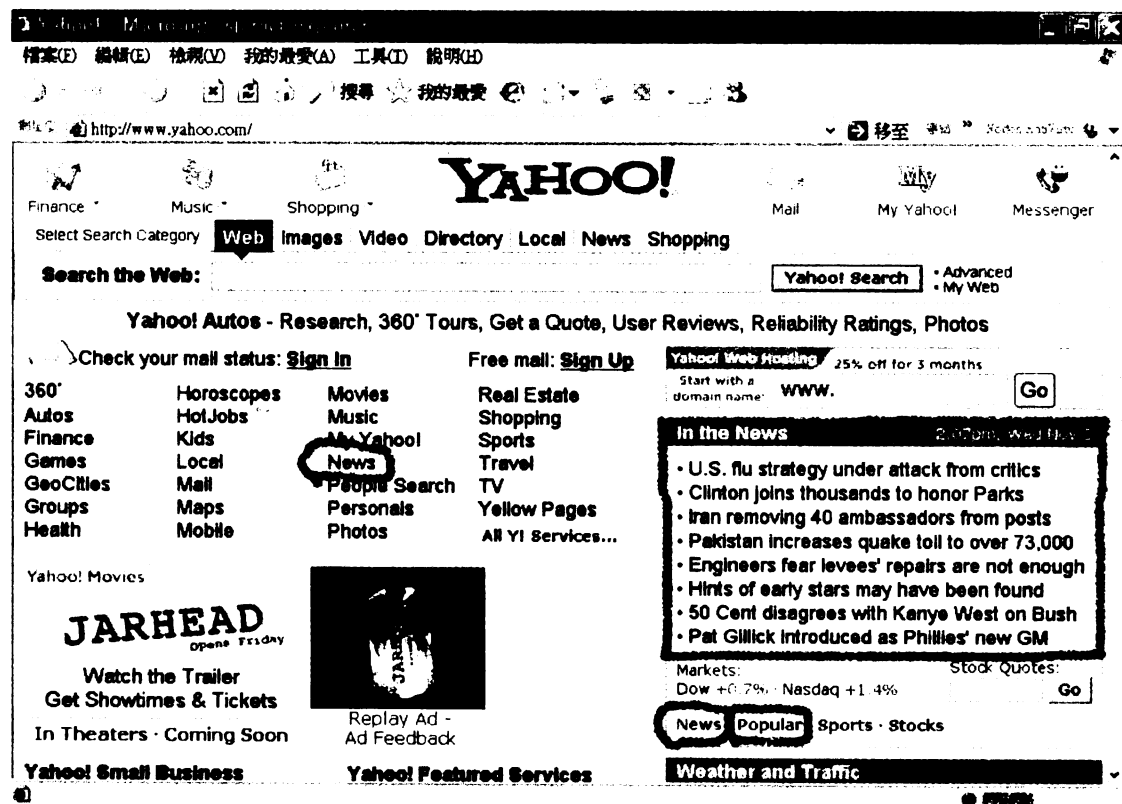
The two phases of observation provide a lot details in the structures of the Yahoo, Google and MSN news services. The finds also present the effect of the three search engine news services on the online news market and the picture of online news network. In this section, the three different structures of Yahoo, Google and MSN news services will be elaborated respectively. Then, I will compare their news packaging, geographical focus and news sources. The details about the Yahoo, Google and MSN news services will be presented in a sequence of Yahoo, Google and then MSN.

The structures of the top three search engine news services (Yahoo news, Google news and MSNBC news) are different although they are similar in packaging news. They also have similar news selections in geographical focus. To a large degree they depend on news agencies for the world news sources. In this section, I will present the structures of the top three search engine news services, their ways to package news and some empirical evidence in their geographical focus and world news sources.

5.2.1 The Structure of Yahoo News

The structure of Yahoo news is very similar to regular news websites, such as the CNN.com and the NYTimes.com sites, except some external links to other news websites after the third layer. The online readers of Yahoo news can not access external links to news websites at the first and second layers. Figure 13 illustrates the structure of Yahoo news. At the front page of Yahoo, there are multiple ways to the Yahoo news services (please see Figure 14). Words circled in red indicate the hyperlinks to the Yahoo

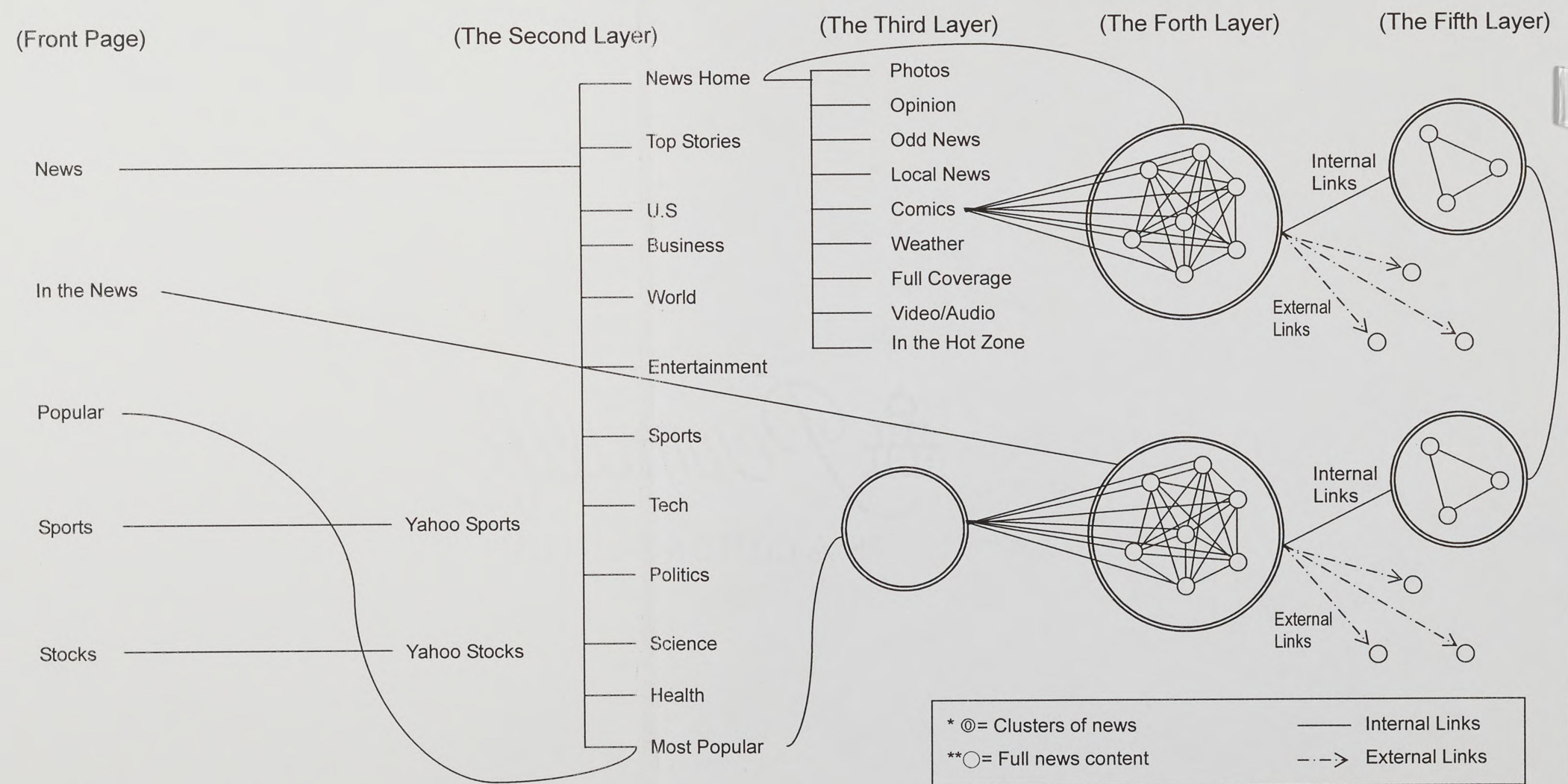
Figure 14 (The Front Page of Yahoo)



(Yahoo, 11/2/2005)

Figure 13

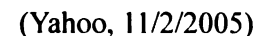
The Structure of Yahoo News



news services. Online users can click on the two words of “news” in the middle of the left column and in the bottom of the right column to directly access the Yahoo news home at the second layer. They also can click on any of eight headline links listed in the box of “In the News” at the right column of the front page to the full news contents which should be at the third layer. If online users click on the word of “popular” at the bottom of the right column, they can access the news in the section of “Most Popular”. If online users click on “Sports” and “Stocks”, they will access the sections of “Yahoo Sport” and Yahoo Stocks” respectively, which are separated from the Yahoo news services. The Yahoo news has sections for sport news and stock news but the two sections are different from “Yahoo Sport” and “Yahoo Stocks”.

At the second layer, news is categorized into twelve sections: news home, top stories, U.S, business, world, entertainment, sports, tech, politics, science, health and most popular. In each section, news is furthermore categorized into subsections. In the section of news home, news is arranged into two clusters. One, on the top of the webpage of news home, includes subsections of photo, opinion, local news, odd news, comics, weather, full coverage, video/audio and “In the Hot Zone”. The news in the hot zone provided by Kevin Sites is like a personal blog. Online readers can provide feedbacks to the news content in the hot zone. The other one, arraying below the lead story, includes subsections of top stories, most popular, world, U.S national, politics, business, science, technology, health, entertainment, sports, odd news and opinion. In each box of subsections here, the selected news headlines are classified according to news sources which are mainly from the AP, the Reuters, the AFP, the Los Angel Times, the USToday.com, the CSMonitors.com, the NPR, the CP, the Knight Ridder Newspapers, the Business Week online, the FT.com, the Space.com/LiveScience.com, the PC World, the SiliconValley.com, the Health Day,

Figure 15 (News Lead Paragraphs Pop Up Next to News Headlines)



52

industry, reviews, books, arts, celebrity, fashion and dear Abby. The subsection of Richard Bangs adventures provided by Casio is like a personal blog. Online readers can grant feedbacks after reading articles in the section of Richard Bangs adventures. In the sport news section, news is categorized in to subsections of football, basketball, baseball, soccer, hockey, college, tennis, golf, boxing, and motor sports. The technology news section has subsections of Internet, personal tech, communications, software, enterprise, Apple/Macintosh, Linux/open source and tech Tuesday. In the politics news section, news is classified into subsections of White house, elections, Congress, U.S government, world, Supreme Court and press releases. The science news section has subsections of weather news, space and astronomy, animals and pets, dinosaurs and fossils, biotechnology and energy. In the health news section, news is grouped into subsections of weight loss, sexual health, medications/drugs, parenting/kids, seniors/aging and disease/conditions. The most popular section has subsections of most e-mailed, most viewed and most recommended. Each section is arranged with a label at the top of each webpage so online users can switch to any sections wherever they are in the Yahoo news services, except the two personal blogs (see Figure 16). Likewise, each subsection of sections is labeled at the top of webpage so online users can switch to other subsections under a certain section (except the two personal blogs).

Figure 16 Subsections in Each Section on Yahoo



World News



**Group Says CIA
Moved Suspects to
Europe**

MOST POPULAR WORLD NEWS
Most Emailed - Most Viewed - Most
Recommended

(Yahoo, 11/2/2005)

News grouped into subsections is mainly at the third layer and full news content primarily stays at the fourth layer. In addition to the labels of subsections on the top of the webpage at the third layer, news is also grouped and listed below the lead story of each section. Only the lead paragraph of news is presented here. If online users want to read the full news content, they need to click news headlines and go to the next layer. While online users access the full news content, they have opportunities to select further related news via external and internal links (see Figure 17) If they select external links, they will access other news websites outside of the Yahoo news service in other pop up windows. Otherwise, they will read other news content in the Yahoo news service if they select internal links. The internal links are connected to other news stories relevant to the full news content in other sections of the Yahoo news service. Online readers can distinguish the internal links from the external links by the presentation of sources behind news headlines. The link of headline which goes with an “at” in front of a source is externals. Online users will leave the website of Yahoo news to other news websites.

Figure 17 Clear Identifications of External/Internal Links

Budget Deficits Yahoo! News Microsoft Internet Explorer

最愛(A) 工具(T) 說明(H)

搜尋 ☆ 我的最愛

20051104/ap_on_bi_ge/greenspan;_ylt=AvLjuxoU7nelkNfiMbKwM6GyBhIF; 移至 連結 Norton

Full Coverage: Federal Reserve

<p>NEWS STORIES</p> <ul style="list-style-type: none"> • Productivity jump means less inflation pressure at CNN/Money, Nov 03 • Fed Raises Key Rate Again at The Washington Post (reg. req'd), Nov 02 • Fed raises rates for 12th time - and warns of more pain to come at The Guardian (UK), Nov 02 • Fed raises rates for 12th straight time at CNN/Money, Nov 01 	<p>FEATURE ARTICLES</p> <ul style="list-style-type: none"> • Boy who loved baseball stats about to steer U.S. economy at Atlanta Journal-Constitution, Oct 28 • Federal Reserve Nominee's Difference Is One of Style at The Los Angeles Times (reg. req'd), Oct 27 <p>OPINION & EDITORIALS</p> <ul style="list-style-type: none"> • Moving toward neutral? at Washington Times, Nov 02 • Bush's good choice for the Fed chair at Seattle Times, Nov 02
--	--

<p><u>Business News</u></p> <ul style="list-style-type: none"> • Jury finds Merck not liable over Vioxx Peuters 	<p><u>Most Viewed - Business</u></p> <ul style="list-style-type: none"> • Greenspan sees inflation
---	--

(11/4/2005)

5.2.2 The Structure of Google News

The structure of Google news is very much like a news aggregator (see Figure 18). On the front page of Google, there is only one link to the Google news service (see Figure 19). The Google news service categorizes news into eight sections: top stories, world, U.S, business, sci/tech, sports, entertainments and health. At the second layer, which is the first page of the Google news service, the eight sections are listed on the top-left column of the webpage. In addition, the Google news service selects five news stories for their top stories: two on the top, five on the bottom. For other sections, the Google news service select three news stories on the first page of their news service. Each news story on the first page goes with eight links of related

Figure 18

The Structure of Google News

(Front Page)

(The Second Layer)

(The Third Layer)

(The Forth Layer)

(The Fifth Layer)

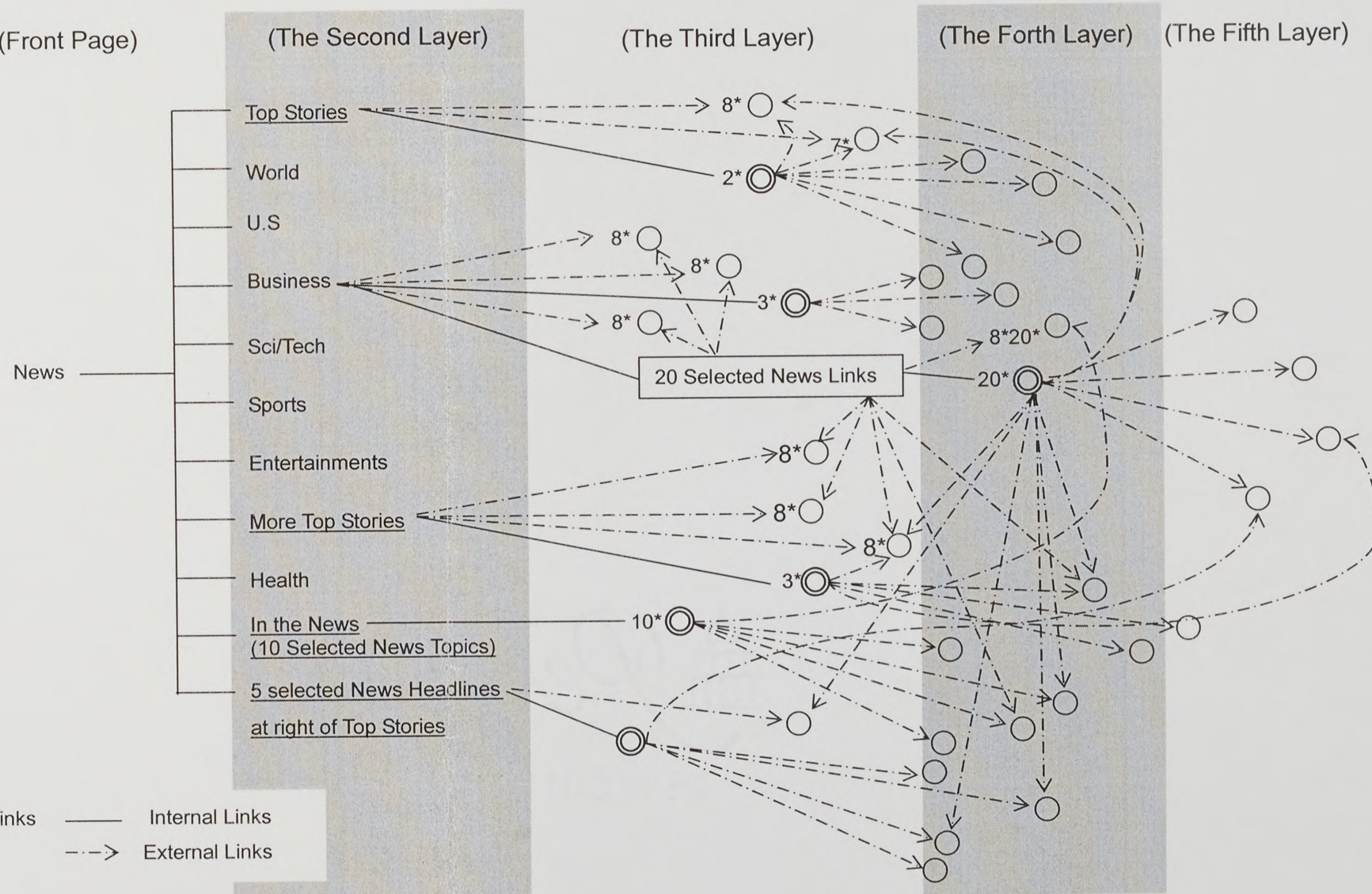
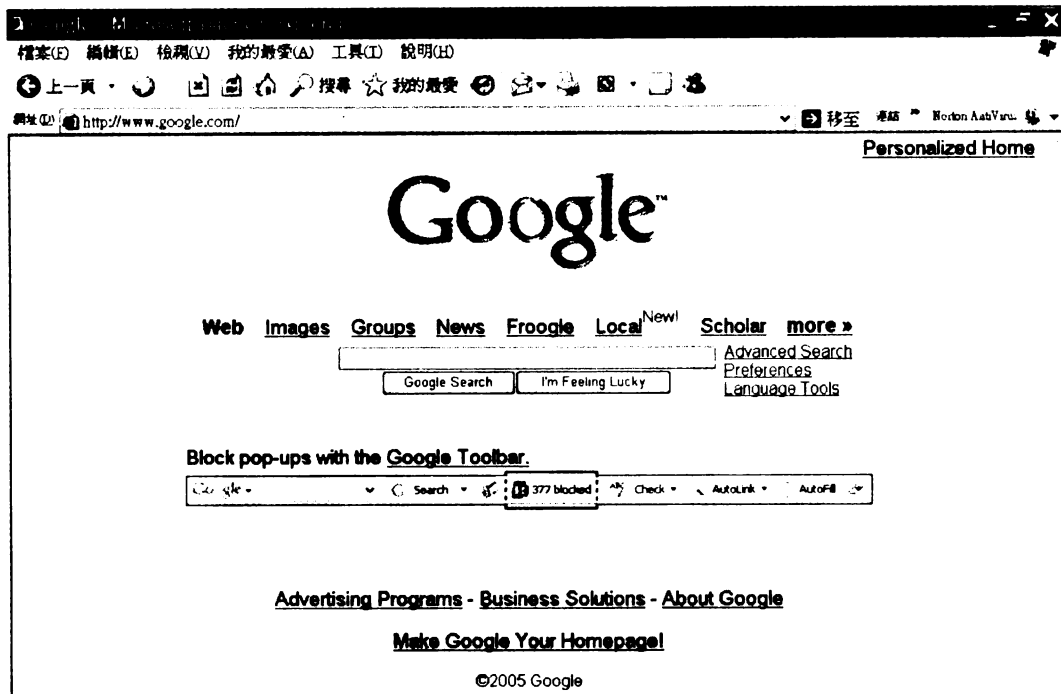


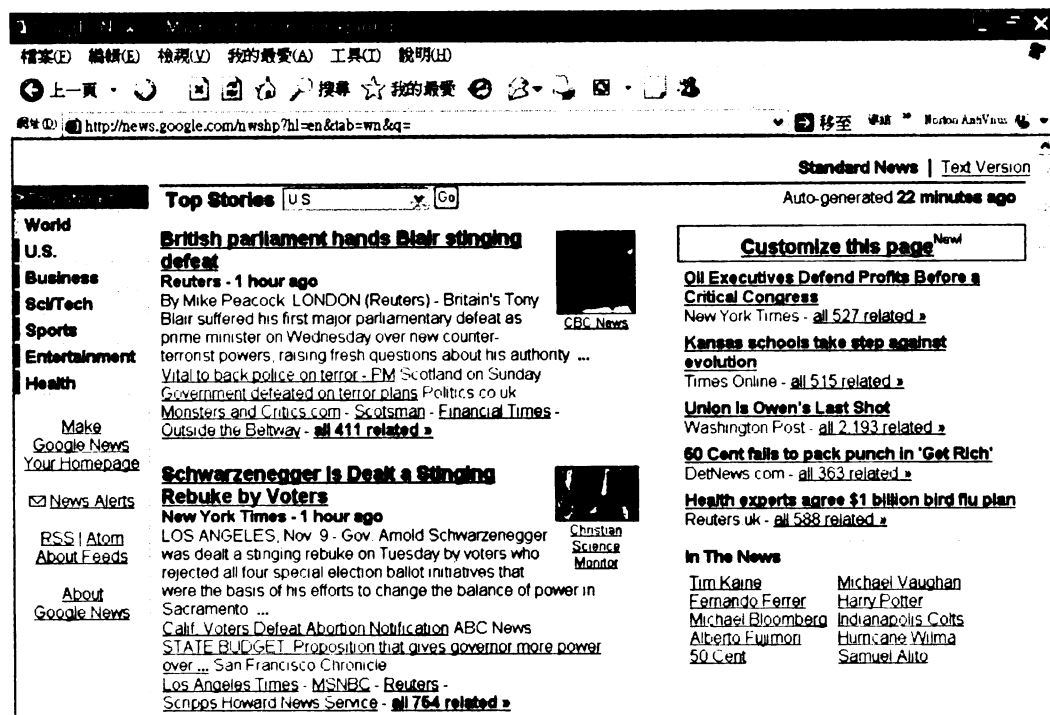
Figure 19 The Front Page of Google



(11/9/2005)

news, except the five headlines and ten news phrases in the right column next to the two top stories on the top of the webpage (see Figure 20). The links of the ten news phrases of “in the news” are internally connected to the third layer of more related news. All of the links on the first page are external except links of sections and more related news are the internal. The news links in the columns of top stories, more top stories, in the news and the five selected news headlines at right of top stories are overlapped with those in the seven sections of world, U.S, Business, sci/tech, sports, entertainments and health. At the third layer, online users have options to access either full news contents at news websites outside the Google news service by clicking the links of headlines, and to access more related news links and the twenty selected news in the each of seven sections: world, U.S, business, sci/tech, sports, entertainments and health. If online users access the twenty selected news in each of the seven sections through internal links, they will have two options, at the forth layer,

Figure 20 The First Page of the Google News Service



(11/09/2005)

to access full news contents at news websites outside the Google news service via external links or more related news by internal links. At the fifth layer, online users completely leave the Google news service to full news contents in other news websites.

Nodes which represent full news content at the third forth and fifth layers are not necessarily fixed at those layers. For example, a node in the third layer can be defined to be at the fifth layer if online users access it via the path from sections, selected news in each section and then related news. Likewise, a node can be defined to be at the third, fourth and fifth layers if its link appears repeatedly in the sections of top news, one of the other seven sections and related news. In sum, the online users will be led away from the Google news service from the third layer.

5.2.3The Structure of MSN news service

The structure of MSN news service principally is like a news aggregator but its news service is mainly supported by its affiliates: NBC, Slate magazine and Fox. Figure 21 illustrates the structure of MSN news service. In the top left column of the front page, the MSN lists its news service categories under the item “News & Sports”: news, Slate magazine, sports by Fox sports, video and weather (see Figure 22) They also list three news headline links under the item of “MSNBC News” and two sport news headlines links under the item of “Sports by the Fox Sports” in the middle column of the front page. The link of “news” in the top left column is to the front page of MSNBC website. The three news headline links in the middle are to the full news contents in the MSNBC website. Likewise, the links of “sports by Fox sport” in the top left column and the two sport news headline links in the central column are directly to the website of Foxsport.com. The link of sports by Fox sport is to the front page of Foxsport.com. The two sport news headline links are to the full news contents in the Foxsport.com. The link to slate of magazine leads directly to the website of Slate.msn.com. The link to video is straight to the website of MSN Video. The MSN Video also provides news videos sponsored by MSNBC, CNBC, Screenplayer, Newsplayer, Weather.com, Frost TV and G4. The link to weather is directly to the website of MSN Weather.

An option of news, on the top of the MSN front page, is for online users to search their desired information related a certain word or phrase from various news websites. The news information online users search from the MSN search engine is not limited in the MSN affiliates. They can be drawn from any news websites. Since the item of news on the top of the MSN front page is a portion of function of the MSN search engine, it is excluded from the thesis.

Figure 21

The Structure of MSN News

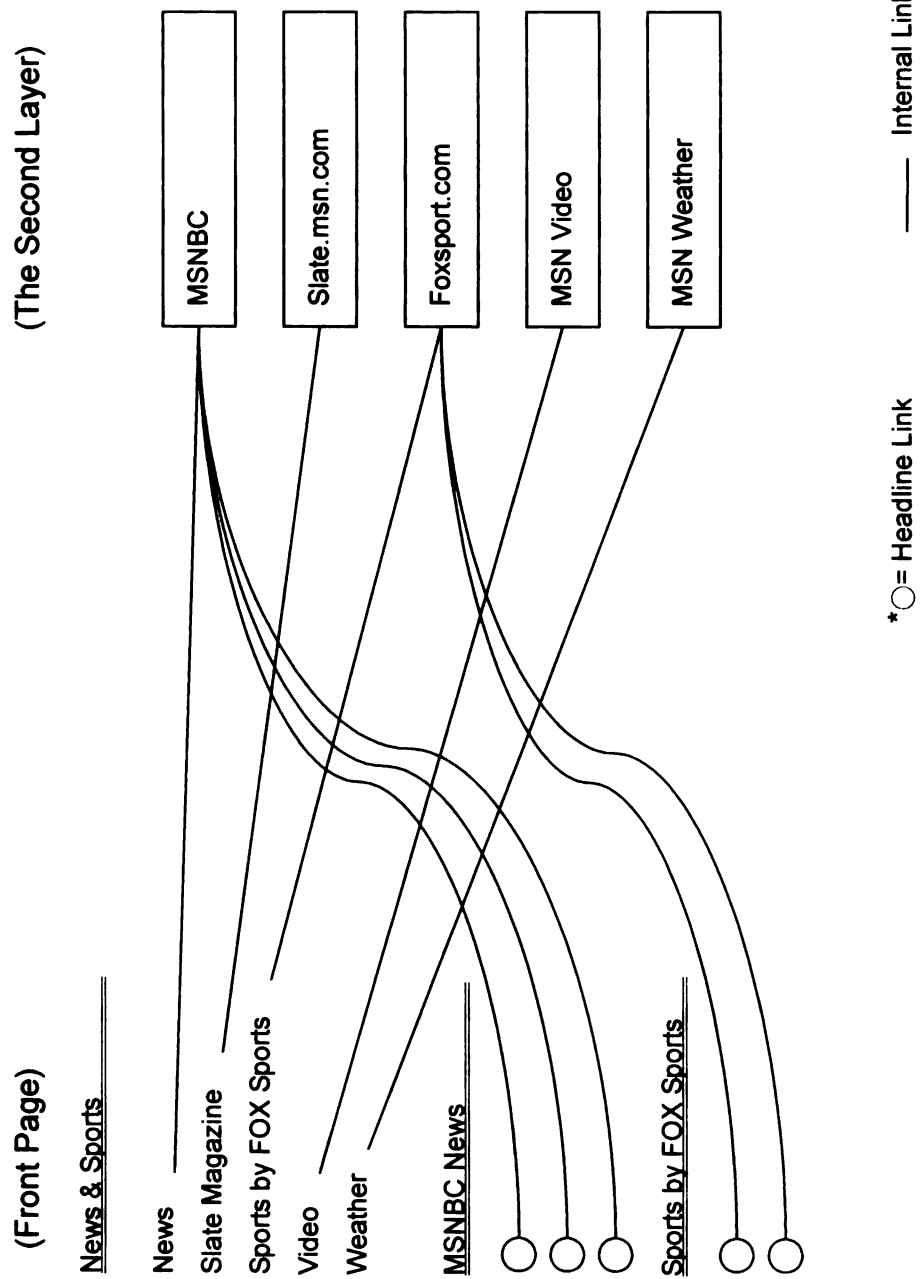


Figure 22 The Front Page of MSN



5.2.4 Similarity in News Packaging of the Yahoo, Google and MSNBC News Service

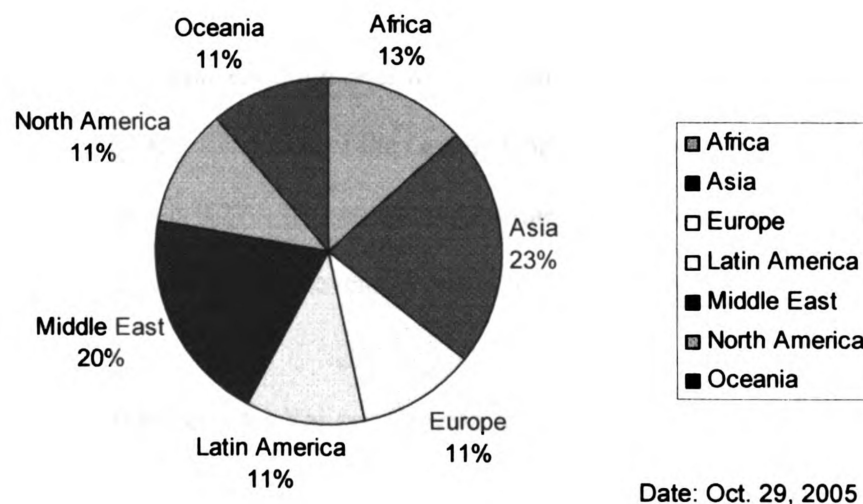
Although the Yahoo, Google and MSN news services have different structures, they are similar in packaging news. Since the MSN news service is supported by the MSNBC, the MSNBC should be referred as the MSN news service. The MSNBC, Yahoo and Google news service all classify news into sections of top stories, U.S, world, business, sci/tech, sport, entertainment, health and most popular. The Yahoo news service and the MSNBC site are more detailed in news categories. Yahoo news divides the section of sci/tech into two sections of science and technology. MSNBC has two more sections: travel and local news. Both Yahoo news and MSNBC design subsections for each section. They also provide personal blogs as alternate news for online users. In addition to classifying news based on attributes of news content, they package news according to news sources. The Yahoo news service has categories of news sources, such as the AP and the Reuters, on its news front page. MSNBC has categories of news sources on each page of its website.

5.2.5 Similarity in Geographical Focus and News Sources in World News

Although they have different designs in their structure, the three news services have similarities in geographical focus and news sources, at least with regard to the front pages of world news, which were part of this study. During the observation period, they all covered news in the Middle East more than news in any other region. They also rely on news from news agencies directly and indirectly in a certain degree (Appendices provide details in the geographical focus and news sources of the Yahoo, Google and MSN world news services).

The Yahoo, Google and MSN world news service were similar in geographic focus on news in Asia and Middle East. Although the Yahoo world news covered news in every region in the world in even proportion, its geographical focus on news in Asia and Middle East have more overages than other regions (see Figure 23).

Figure 23 **Regions in the Yahoo World News**



23% of the Yahoo world news focused on Asia and 20% of the Yahoo world news focused on the Middle East on Oct. 29th, 2005. MSNBC and Google news also had more news coverage in Asia and Middle East than other regions (see Figures 24 and

25). 20% of Google's world news focused on Asia and 40% on the Middle East. 23% of the MSNBC world news reported on Asia and 40% of the MSNBC world news focused on the Middle East. On November 5, 2005, the Yahoo, Google and MSNBC news services still had more news coverage in Middle East than other regions (see Figures 26, 27 and 28). 25% of the Yahoo world news focused on the Middle East, whereas 40% of the Google world news and 32% of the MSNBC World news focused on that region. Interestingly, the distribution of the Google world news (as a news aggregator) in geographical focus is very similar with that of the MSNBC world news (as a regular news website). To create a better basis for comparison, the Herfindahl-Hirschman Index (HHI), a concentration measure, was calculated for each of the three news services. The HHI ranges from 0 for an fully dispersed set of regions to 1 if all news were from one region. Services with a more even distribution of news by region should thus exhibit a lower index value. The measure shows that the regional distribution of Yahoo world news is less concentrated than the Google and MSNBC world news services (see Table 1; see also Litman, 1998). Both of the concentration rates of Yahoo world news on October 29 and November 5 are 0.15. The HHI of the Google world news on October 29 is 0.3 and that on November 5 is 0.27. The concentration rates of the Google world news on October 29 is 0.27 and that on November 5 is 0.24.

Table 1

Concentration Indices for Yahoo, Google, and MSNBC World News (HHI)

Yahoo World News	0.15	0.15
Google World News	0.3	0.27
MSNBC World News	0.27	0.24

$$* HHI = \sum_{i=1}^n S_i^2$$

Figure 24

Regions in the Google World News

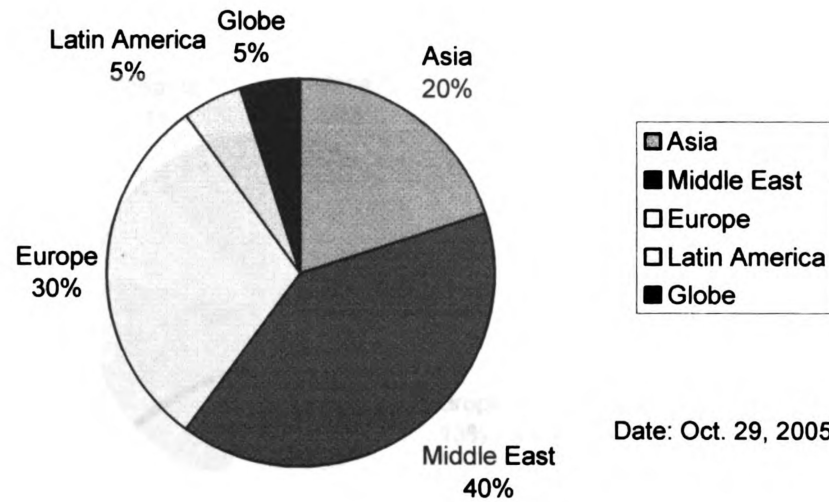


Figure 25

Regions in the MSNBC World News

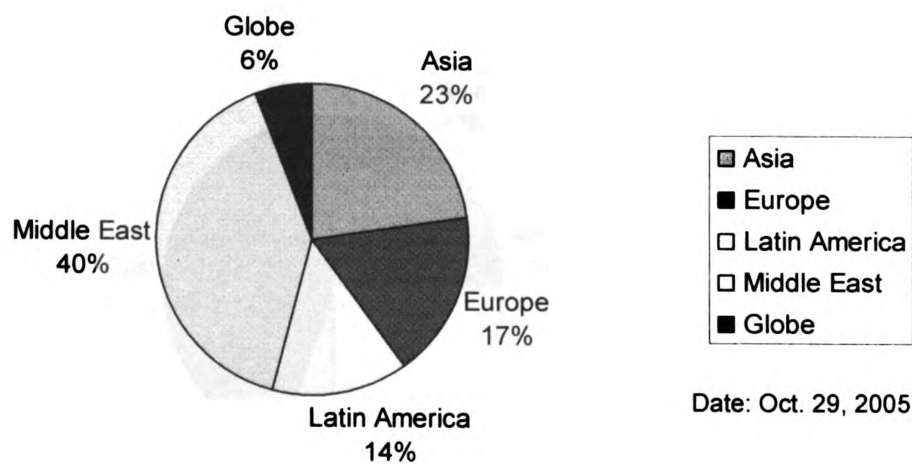


Figure 26

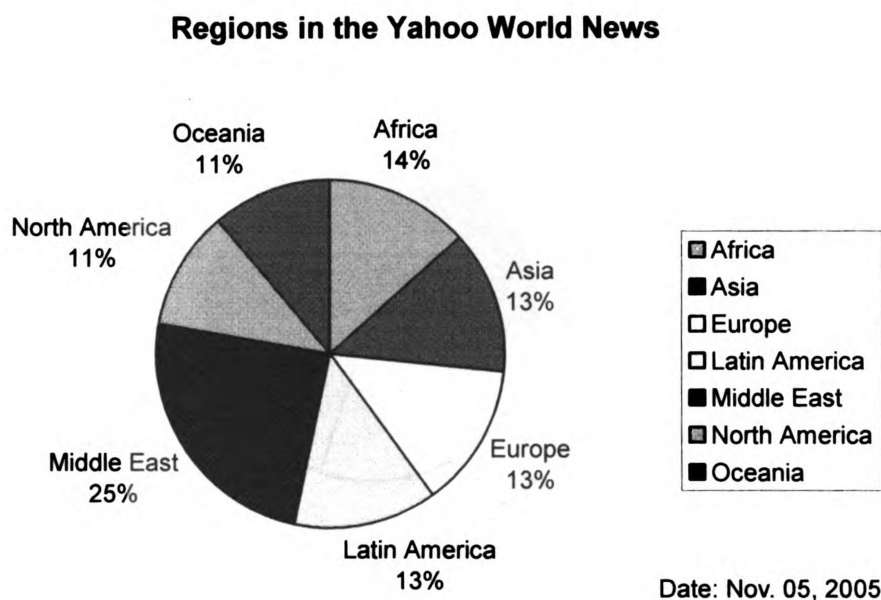


Figure 27

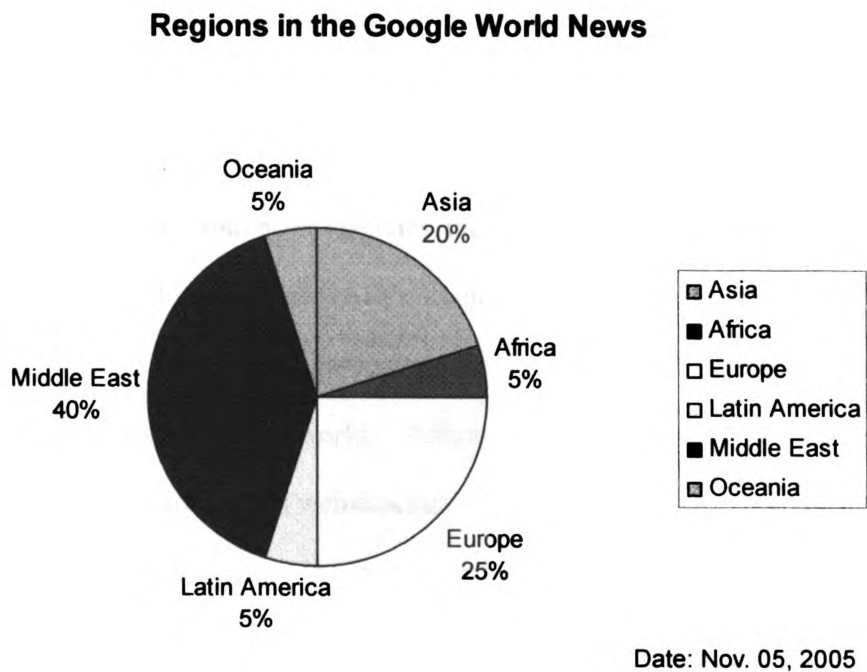
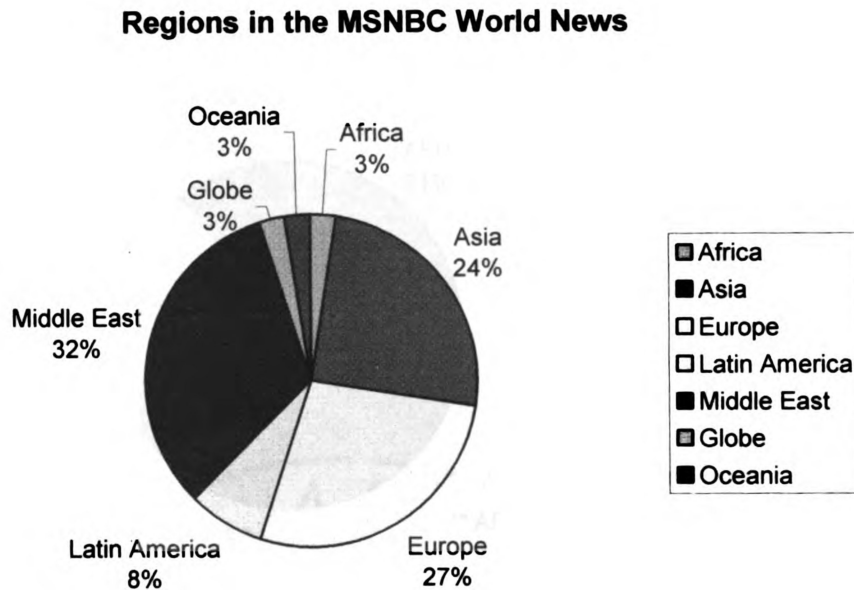


Figure 28



Date: Nov. 05, 2005

The Yahoo, Google and MSNBC world news services directly and indirectly depend on news agencies for their news sources to a considerable extent. Almost all of the news articles in the Yahoo world news front page are directly from news agencies. 91% of the Yahoo world news articles on October 29th and 92% of them on November 5th were from news agencies, including agencies such as the Associated Press (AP), Agence France Presse (AFP), Reuters, and the Canadian Press (CP) (see Figure 29 and 30). As a news aggregator, Google news collects the world news from news websites around the world. Although the Google world news service sorts mostly from regular news websites (such as the NYTimes.com and the CNN), about half of the news websites in turn received their world news from news agencies.

Figure 29

Article Sources in the Yahoo World News

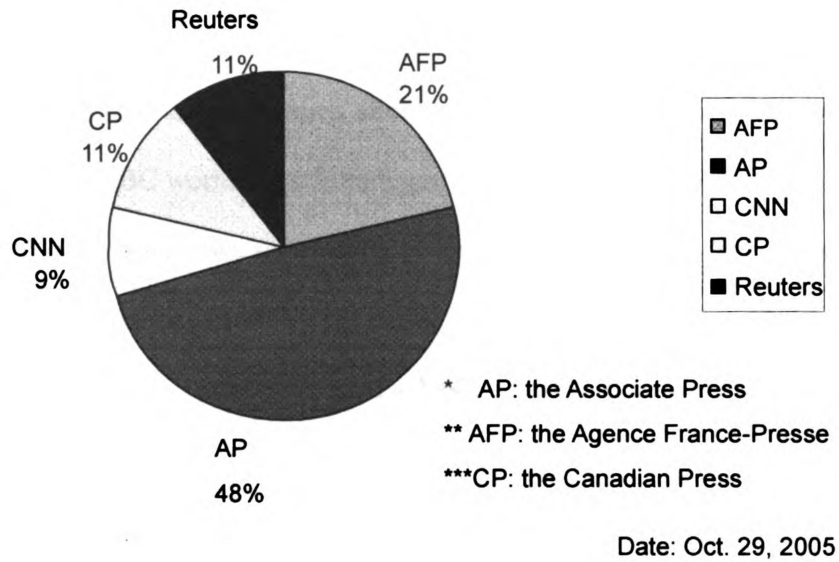
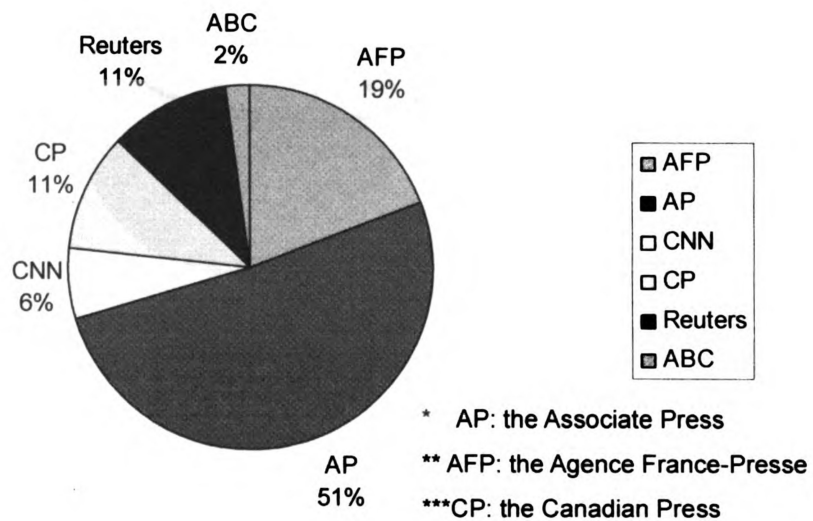


Figure 30

Article Sources in the Yahoo World News



Thus, taking direct and indirect sources into account, 48 % of the news articles of the news website on the Google world news on October 29th and 51% of their news articles on November 5th were from news agencies (see Figure 31 and 32). MSNBC, as a regular news website, produces world news not only by its own staff but also cites news articles from news agencies, about half of the total. 48.6% of the news articles on the MSNBC world news front page on October 29th and 50% of them on November 5th were from news agencies (see Figure 33 and 34). Overall, the Google world news article sources from news agencies are more diverse than the MSNBC. Nonetheless, the Google world news service has a similar distribution of news articles from news agencies with the MSNBC.

Figure 31

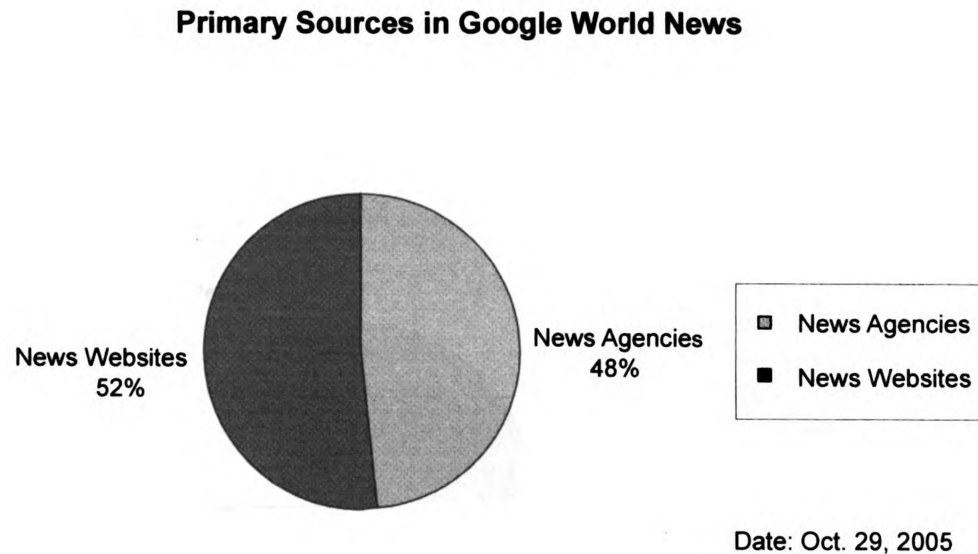
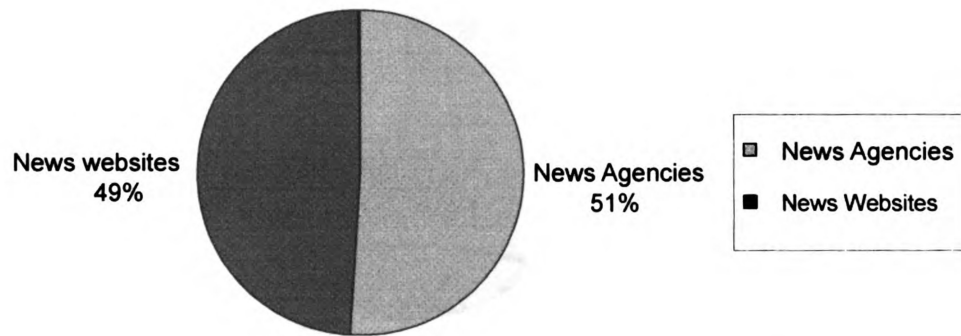


Figure 32

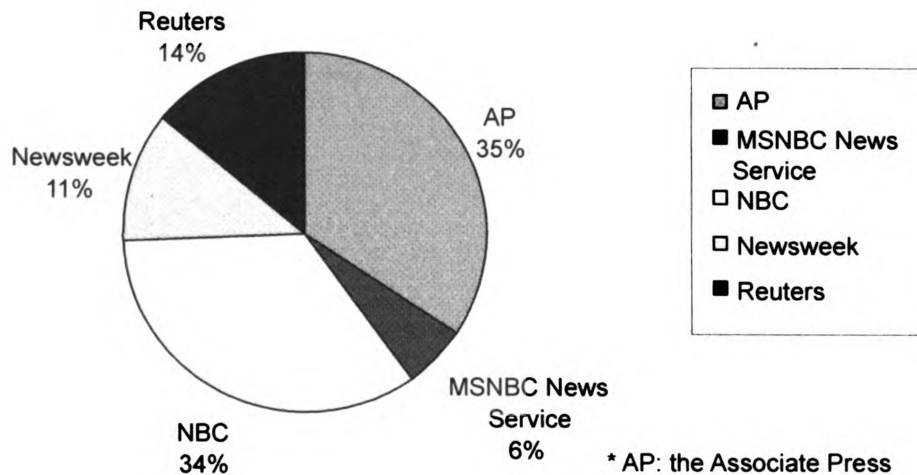
Primary Sources in Google News Service



Date: Nov. 05, 2005

Figure 33

Article Sources in MSNBC World News

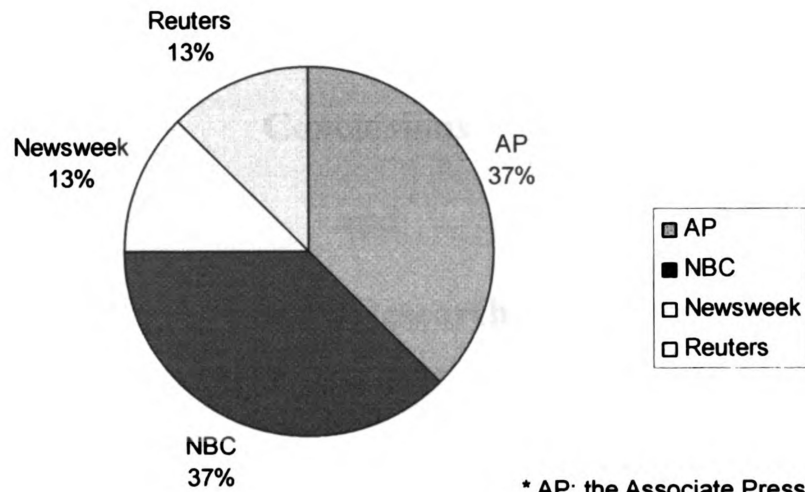


* AP: the Associate Press

Date: Oct. 29, 2005

Figure 34

Article sources in the MSNBC World News



* AP: the Associate Press

Date: Nov. 05, 2005

The Yahoo, Google, MSN have very different structures in their news services but they are similar in their world news content regarding geographical focus and news sources. Surprisingly, empirical statistics presents that the Google news (as a news aggregator) is more similar to the MSNBC (as a regular news website) in their world news services than Yahoo world news. This might be a valuable starting point for further research in the future.

Chapter 6

Conclusions

and

Future Research

This study is a pioneer research effort in studying important aspects of the organization and structure of internet search engine news services. The study also allows first tentative conclusions regarding the potential effects of search engine news on independent news websites. The findings in this study provide details in the structures of the Yahoo, Google and MSN news service and statistics about the geographic focus and the news sources in the world news of the three internet search engine news services. Also, the statistics in the findings reveal the similarities in the news packaging, geographic focus and news sources of the three search engine news service. The findings, thus, suggest what the impact of the search engine news services on the online news market might be. Moreover, the findings draw out the picture of the online news network, according to the concept of Burt's (1995) structural hole theory.

The differences among the structures of the Yahoo, Google and MSN news services have different impact on the traffic of online news readers who learn news from the three search engine news services. Although the Yahoo news service aggregates news from news agencies and news websites, the online news readers have rare opportunities to access news websites outside the Yahoo news on the early layers. Among the three search engine news services, Google news service is most like an aggregator of the three. Online news readers are able to access diverse news websites outside the Google site from the front page of the Google news service to its final fifth layer. The MSN news service aggregates news only from its affiliates that supply the content of its news service. Online news readers access to the websites of its affiliates from the front page of the MSN.

The different structures of the three search engine services do not mean that their news contents are different. In fact, their world news services are very similar in

their news packaging, geographic focus and news sources. The Google world news service is even more similar to MSNBC than Yahoo. The Yahoo world news service is distinguished because it has more detailed design in news packaging and its world news tries to cover every region. This is also visible if the HHI of the regional concentration is calculated: Yahoo world news service is lower than that of Google and MSNBC world news services. This may bestow a competitive advantage for the Yahoo news service relative to Google and MSN news, according to Lacy's (1989) economic analysis in competition on newspaper content. The Yahoo news may attract more online news readers than the other two since it functions as a news aggregator and a news website simultaneously (Hansell, 2005). Therefore, it may gain more advertising profit than the other two and even share the online advertising market with news websites.

The online news network is very like the hybrid information search pattern (see Figure 6 for the hybrid information search pattern). The Yahoo, Google and MSN news services fill the structural holes in the online news network, according to Burt's (1995) theory of structural hole. They connect the two possibly unconnected nodes between news websites and individuals. If individuals know the exact address of a certain news content, they can, of course, access the news content. Nonetheless, individuals do not familiar with the exact addresses of news contents in general. Although the structures of the three Internet search engine news services are different, they still serve as aggregators which collect news from different news sources. Online news readers may learn news from diverse news sources through the internet search engine news services without knowing the address of news websites. They also may reach the same news sources, such as the news agencies, via different internet search engine news services. Therefore, the volume of news they obtain

through the Internet search engines should be much more than that directly from the individual and different news websites.

In this study, the findings of the relationship between internet search engine news services and news website based on Burt's (1995) theory of structural hole, may suggest the impact of the Internet search engine news services on the online news market. Moreover, this study requires more observations to ensure stability. In addition, further researches about the demand side of the online news market are required to grasp more details about the impact of the Internet search engine news services. Based on such more refined studies, marketing planners of news media organizations should be able to develop better strategies for meeting the changes brought by the Internet. Nevertheless, the present work has revealed interesting patterns and the organization of internet search engine news sites. It hopefully is a helpful first step toward more comprehensive research.

Appendices

Appendix 1

10/29/2005

The Yahoo World News

Story	Country	Region	Source
1	India	Asia	AP
1	India	Asia	AP
1	India	Asia	AP
2	Iraq	Middle East	AP
3	India	Asia	AP
4	Jordan	Middle East	AP
5	Colombia	Latin America	AP
6	Israel	Middle East	AP
7	US	Middle East	AP
8	US	Middle East	AP
9	South Africa	Africa	CNN
10	India	Asia	CNN
11	India	Asia	CNN
12	Iraq	Middle East	CNN
13	Iraq	Middle East	AFP
14	Pakistan	Asia	Reuters
15	China	Asia	Reuters
16	Syria	Middle East	AP
17	Spain	Europe	AP
18	German	Europe	AP
19	Italy	Europe	Reuters
20	German	Europe	AFP
21	EU	Europe	AFP
22	Argentina	Latin America	AP
23	Salvador	Latin America	AP
24	Guyana	Latin America	AP
25	Brazil	Latin America	AP
26	Congo	Africa	AP

Region	S	S ²
Africa	13%	169
Asia	23%	529
Europe	11%	121
Latin America	11%	121
Middle East	20%	400
North America	11%	121
Oceania	11%	121
Total:	100%	1582
HHI		0.15

* S is the portion of every region in total regions

Source	Number
AFP	10
AP	23
CNN	4
CP	5
Reuters	5
Total:	47

* AP: The Associate Press

** AFP: The Agence
France-Presse

*** CP: The Canadian Press

27	Egypt	Africa	AFP
28	Egypt	Africa	AFP
29	South Africa	Africa	AP
30	Egypt	Africa	AP
31	North Korea	Asia	AP
32	India	Asia	Reuters
33	India	Asia	AP
34	India	Asia	AFP
35	Canada	North America	CP
36	Canada	North America	CP
37	Canada	North America	CP
38	Canada	North America	CP
39	Canada	North America	CP
40	Australia	Oceania	AP
41	Australia	Oceania	AFP
42	Australia	Oceania	AFP
43	Australia	Oceania	AFP
44	Australia	Oceania	AFP
45	Iran	Middle East	Reuters

Appendix 2

11/05/2005

The Yahoo World News

Story	Country	Region	Source
1	France	Europe	AP
1	France	Europe	AFP
1	France	Europe	AP
2	Brazil	Latin America	AP
3	Iraq	Middle East	AP
4	Iraq	Middle East	AP
5	Palestin	Middle East	AP
6	Bahrain	Middle East	AP
7	Iraq	Middle East	AP
8	Azerbaijani	Middle East	AP
9	UK	Europe	AP
10	German	Europe	AFP
11	UK	Europe	AFP
12	Mexico	Latin America	AP
13	Mexico	Latin America	AP
14	Mexico	Latin America	AP
15	Mexico	Latin America	AP
16	Mexico	Latin America	AP
17	Ethiopia	Africa	Reuters
18	Egypt	Africa	Reuters
19	Ethiopia	Africa	AFP
20	South Africa	Africa	AP
21	Sudan	Africa	AP
22	Philippine	Asia	AP
23	China	Asia	AP
24	Pakistan	Asia	AP
25	Pakistan	Asia	AFP
26	Azerbaijani	Middle East	Reuters

Region	S	S ²
Africa	13%	169
Asia	13%	169
Europe	13%	169
Latin America	13%	169
Middle East	24%	576
North America	12%	144
Oceania	12%	144
Total:	100%	1540
HHI		0.15

* S is the portion of every region
in total regions

Source	Number
AFP	9
AP	24
CNN	3
CP	5
Reuters	5
ABC	1
Total:	47

* AP: The Associate Press

** AFP: The Agence France-Presse

***CP: The Canadian Press

27	Canada	North America	CP
28	Canada	North America	CP
29	Canada	North America	CP
30	Canada	North America	CP
31	Canada	North America	CP
32	Australia	Oceania	AP
33	Australia	Oceania	AFP
34	Australia	Oceania	AFP
35	Australia	Oceania	AFP
36	Australia	Oceania	Reuters
37	Somali	Africa	AFP
38	North Korea	Asia	AP
39	Iraq	Middle East	CNN
40	Iraq	Middle East	CNN
41	France	Europe	CNN
42	UK	Europe	ABC
43	Syria	Middle East	AP
44	India	Asia	Reuters
45	Iran	Middle East	AP

Appendix 3

10/29/2005

The Google World News

Story	Country	Region	Source	Primary Source
1	India	Asia	Washington Post	Washington Post
1	India	Asia	Newsday	Newsday
1	India	Asia	Scotsman	Scotsman
1	India	Asia	Espressindia.com	Press trust of India
1	India	Asia	BBC News	BBC News
1	India	Asia	New York Times	New York Times
1	India	Asia	Independent	Independent
1	India	Asia	Peninsula On-line	Agencies
2	Iran	Middle East	Independent	Independent
2	Iran	Middle East	Xinhua	cctv.com
2	Iran	Middle East	Voice of America	Voice of America
2	Iran	Middle East	Times Online	Times Online
2	Iran	Middle East	Reuters.uk	Reuters
2	Iran	Middle East	Business Online	Business Online
2	Iran	Middle East	Ha'aretz	Agencies
2	Iran	Middle East	San Diego Union Tribune	AP
3	Nicaragua	Latin America	Guardian Unlimited	AP
3	Nicaragua	Latin America	China Post	China Post
3	Nicaragua	Latin America	CTV.ca	CTV.ca
3	Nicaragua	Latin America	CTV.ca	CTV.ca
3	Nicaragua	Latin America	Independent Online	Reuters
3	Nicaragua	Latin America	Minneapolis Star Tribune	AP
4	Syria	Middle East	Washington Post	Washington Post
4	Syria	Middle East	Swissinfo	Reuters
4	Syria	Middle East	Guardian Unlimited	AP
4	Syria	Middle East	Seattle Post Intelligencer	AP
4	Syria	Middle East	BBC News	BBC News
4	Syria	Middle East	ITP.net	ITP.net
4	Syria	Middle East	Times Online	Times Online
4	Syria	Middle East	Metro Toronto	Reuters

5	Israel	Middle East	BBC News	BBC News
5	Israel	Middle East	Ireland Online	Ireland Online
5	Israel	Middle East	Times Online	Times Online
5	Israel	Middle East	Reuters.uk	Reuters
5	Israel	Middle East	Scotsman	Scotsman
5	Israel	Middle East	USA Today	AP
5	Israel	Middle East	Ain-Al-Yaqeen	Ain-Al-Yaqeen
5	Israel	Middle East	China Daily	AP
6	Pakistan	Asia	Miami Herald	AP
6	Pakistan	Asia	Reuters AlertNet	Reuters
6	Pakistan	Asia	Rediff	Rediff
6	Pakistan	Asia	ABC News	AP
6	Pakistan	Asia	Bloomberg	Bloomberg
6	Pakistan	Asia	Xinhua	Xinhua
6	Pakistan	Asia	Daily Times	Daily Times
6	Pakistan	Asia	USA Today	AP
7	India	Asia	Guardian Unlimited	AP
7	India	Asia	Japan Today	Japan Today
7	India	Asia	Times Online	Agencies
7	India	Asia	Reuters.uk	Reuters
7	India	Asia	CNN International	CNN International
7	India	Asia	The Tribune	The Tribune
7	India	Asia	Globe and Mail	AP
7	India	Asia	Peninsula On-line	Agencies
8	UN	Globe	Xinhua	Xinhua
8	UN	Globe	The Day	Washington Post
8	UN	Globe	United Press International	United Press International
8	UN	Globe	Radio Netherlands	Radio Netherlands
8	UN	Globe	Melbourne Herald Sun	Melbourne Herald Sun
8	UN	Globe	Guardian Unlimited	AP
8	UN	Globe	Financial Times	Financial Times
8	UN	Globe	Kashar News	Kashar News
9	Afghan	Middle East	Telegraph.co.uk	Telegraph.co.uk
9	Afghan	Middle East	Daily Times	Daily Times

9	Afghan	Middle East	ABC News	AP
9	Afghan	Middle East	Sydney Morning Herald	AP
9	Afghan	Middle East	Reuters.uk	Reuters
9	Afghan	Middle East	BBC News	BBC News
9	Afghan	Middle East	ITN	ITN
9	Afghan	Middle East	Independent	Independent
10	Iraq	Middle East	Boston Globe	AP
10	Iraq	Middle East	San Francisco Chronicle	AP
10	Iraq	Middle East	Hindu	AP
10	Iraq	Middle East	San Diego Union Tribune	AP
10	Iraq	Middle East	Washington Post	Washington Post
10	Iraq	Middle East	Scotsman	Press Association
10	Iraq	Middle East	Aljazeera.net	AP
10	Iraq	Middle East	Washington Post	AP
11	Iraq	Middle East	CNN International	CNN International
11	Iraq	Middle East	Outlook	AP
11	Iraq	Middle East	BBC News	BBC News
11	Iraq	Middle East	Monsters and Critics.com	dpa
11	Iraq	Middle East	ITN	ITN
11	Iraq	Middle East	Reuters AlertNet	Reuters
11	Iraq	Middle East	ITN	ITN
12	Indonesia	Asia	Seattle Post Intelligencer	AP
12	Indonesia	Asia	Bangkok Post	dpa
12	Indonesia	Asia	Xinhua	Xinhua
12	Indonesia	Asia	Christian Post	Christian Post
12	Indonesia	Asia	Sydney Morning Herald	AP
12	Indonesia	Asia	Jakarta Post	dpa
12	Indonesia	Asia	The Statesman	The Statesman
12	Indonesia	Asia	ITN	ITN
13	UK	Europe	CNN International	CNN International
13	UK	Europe	Telegraph.co.uk	Telegraph.co.uk
13	UK	Europe	BBC News	BBC News
13	UK	Europe	BBC News	BBC News
13	UK	Europe	Reuters.uk	Reuters

13	UK	Europe	Radio New Zealand	Radio New Zealand
13	UK	Europe	EiTB	EiTB
14	Kashmir	Asia	Daily Times	Daily Times
14	Kashmir	Asia	BBC News	BBC News
14	Kashmir	Asia	Hindu	Hindu
14	Kashmir	Asia	Indian Express	Express News Service
14	Kashmir	Asia	Deccan Herald	Deccan Herald
14	Kashmir	Asia	NDTV.com	NDTV.com
14	Kashmir	Asia	Outlook	PTI
14	Kashmir	Asia	Peninsula On-line	IANS
15	UK	Europe	Telegraph.co.uk	Telegraph.co.uk
15	UK	Europe	Scotsman	Scotsman
15	UK	Europe	Scotland on Sunday	Press Association
15	UK	Europe	BBC News	BBC News
15	UK	Europe	viploan.co.uk	viploan.co.uk
15	UK	Europe	Calcutta Telegraph	Calcutta Telegraph
15	UK	Europe	Times Online	Times Online
15	UK	Europe	ic Liverpool	ic Liverpool
16	France	Europe	New York Times	AFP
16	France	Europe	Seattle Post Intelligencer	AP
16	France	Europe	Reuters.uk	Reuters
16	France	Europe	BBC News	BBC News
16	France	Europe	Khaleej Times	Reuters
16	France	Europe	Independent Online	AFP
16	France	Europe	Guardian Unlimited	AP
16	France	Europe	Malaysia Star	AFP
17	N. Korea	Asia	Guardian Unlimited	AP
17	N. Korea	Asia	Malayala Manorama	Malayala Manorama
17	N. Korea	Asia	Deccan Herald	PTI
17	N. Korea	Asia	Los Angeles Times	Los Angeles Times
17	N. Korea	Asia	Arkansas Democrat-Gazette	Arkansas Democrat-Gazette
17	N. Korea	Asia	CRI	CRI
17	N. Korea	Asia	Reuters	Reuters

17	N. Korea	Asia	Peninsula On-line	Reuters
18	Denmark	Europe	BBC News	BBC News
18	Denmark	Europe	Scotsman	Scotsman
18	Denmark	Europe	ABC Online	AP
18	Denmark	Europe	Herald News Daily	Herald News Daily
18	Denmark	Europe	Independent	AP
18	Denmark	Europe	Xinhua	Xinhua
18	Denmark	Europe	Reuters.uk	Reuters
18	Denmark	Europe	ITN	ITN
19	German	Europe	Scotsman	Scotsman
19	German	Europe	Brandon Sun	AP
19	German	Europe	Leading The Charge	Leading The Charge
19	German	Europe	Newsday	AP
19	German	Europe	Pravda	AP
20	Italy	Europe	ABC News	Reuters
20	Italy	Europe	Los Angeles Times	Los Angeles Times
20	Italy	Europe	Salon	AP
20	Italy	Europe	Malaysia Star	Reuters

Appendix 4

10/29/2005

The Google World News

Source	Number	Source	Number
ABC News	4	ITP.net	1
Ain-Al-Yaqeen	1	Jakarta Post	1
Aljazeera.net	1	Japan Today	1
Arkansas Democrat-Gazette	1	Kashar News	1
Bangkok Post	1	Khaleej Times	1
BBC News	11	Leading The Charge	1
Bloomberg	1	Los Angeles Times	2
Boston Globe	1	Malayala Manorama	1
Brandon Sun	1	Malaysia Star	2
Business Online	1	Melbourne Herald Sun	1
Calcutta Telegraph	1	Metro Toronto	1
China Daily	1	Miami Herald	1
China Post	1	Minneapolis Star Tribune	1
Christian Post	1	Monsters and Critics.com	1
CNN International	3	NDTV.com	1
CRI	1	New York Times	2
CTV.ca	2	Newsday	2
Daily Times	3	Outlook	2
Deccan Herald	2	Peninsula On-line	4
EiTB	1	Pravda	1
Espressindia.com	1	Radio Netherlands	1
Financial Times	1	Radio New Zealand	1
Globe and Mail	1	Rediff	1
Guardian Unlimited	6	Reuters	1
Ha'aretz	1	Reuters AlertNet	2
Herald News Daily	1	Reuters.uk	7
Hindu	2	Salon	1
ic Liverpool	1	San Diego Union Tribune	2
Independent	4	San Francisco Chronicle	1
Independent Online	2	Scotland on Sunday	1
Indian Express	1	Scotsman	6
Ireland Online	1	Seattle Post Intelligencer	3
ITN	5	Swissinfo	1

Source	Number
Sydney Morning Herald	2
Telegraph.co.uk	3
The Day	1
The Statesman	1
The Tribune	1
Times Online	5
United Press International	1
USA Today	2
viploan.co.uk	1
Voice of America	1
Washington Post	4
Xinhua	5
Total:	149
Amount of Sources	78

Appendix 5

10/29/2005

The Google World News

Primary Source	Number
AFP (The Associate Press)	3
Agencies	4
Ain-Al-Yaqeen	1
AP (The Associate Press)	33
Arkansas Democrat-Gazette	1
BBC News	11
Bloomberg	1
Business Online	1
Calcutta Telegraph	1
cctv.com	1
China Post	1
Christian Post	1
CNN International	3
CRI	1
CTV.ca	2
Daily Times	3
Deccan Herald	1
dpa (The Deutsche Presse-Agentur GmbH)	3
EiTB	1
Express News Service	1
Financial Times	1
Herald News Daily	1
Hindu	1
IANs (The Indo-Asian News Service)	1
ic Liverpool	1
Independent	3
Ireland Online	1
ITN	5
ITP.net	1
Japan Today	1

Primary Source	Number
Kashar News	1
Leading The Charge	1
Los Angeles Times	2
Malayala Manorama	1
Melbourne Herald Sun	1
NDTV.com	1
New York Times	1
Newsday	1
Press Association	2
Press trust of India	1
PTI (The Press Truss of India)	2
Radio Netherlands	1
Radio New Zealand	1
Rediff	1
Reuters	17
Scotsman	5
Telegraph.co.uk	3
The Statesman	1
The Tribune	1
Times Online	4
United Press International	1
viploan.co.uk	1
Voice of America	1
Washington Post	4
Xinhua	4
Total:	149
Amount of Primary Sources	55
Total of Primary Sources from Agencies	72
Percentage of Total of Primary Sources from Agencies in Total of Primary Sources	48%

Appendix 6

10/29/2005

The Google World News

Region	S	S ²
Asia	20%	400
Middle East	40%	1600
Europe	30%	900
Latin America	5%	25
Globe	5%	25
Total:	100%	2950
HHI:		0.3

* S is the portion of every region in total regions

Appendix 7

11/05/2005

The Google World News

Story	Country	Region	Source	Primary Source
1	Argentina	Latin America	Voice of America	Voice of America
1	Argentina	Latin America	San Jose Mercury News	Knight Ridder
1	Argentina	Latin America	Washington Post	Washington Post
1	Argentina	Latin America	Bloomberg	Bloomberg
1	Argentina	Latin America	CBS News	AP
1	Argentina	Latin America	ABC News	AP
1	Argentina	Latin America	MarketWatch	MarketWatch
1	Argentina	Latin America	Xinhua	Xinhua
2	France	Europe	Los Angeles Times	Los Angeles Times
2	France	Europe	Scotsman	Scotsman
2	France	Europe	WashingtonPost	WashingtonPost
2	France	Europe	Reuters AlertNet	Reuters
2	France	Europe	Aljazeera.net	AFP
2	France	Europe	Telegraph.co.uk	Telegraph.co.uk
2	France	Europe	News24	News25
2	France	Europe	Alaska Highway News	CP
3	Iraq	Middle East	ABC News	AP
3	Iraq	Middle East	Aljazeera.net	Agencies
3	Iraq	Middle East	Guardian Unlimited	AP
3	Iraq	Middle East	Washington Post	Washington Post
3	Iraq	Middle East	Minneapolis Star Tribune	AP
3	Iraq	Middle East	Reuters	Reuters
3	Iraq	Middle East	CJAD	AP
3	Iraq	Middle East	Metro Toronto	Reuters
4	Azerbaijan	Middle East	Newsday	Newsday
4	Azerbaijan	Middle East	CNN	AP
4	Azerbaijan	Middle East	Seattle Post Intelligencer	AP
4	Azerbaijan	Middle East	Xinhua	Xinhua
4	Azerbaijan	Middle East	BBC News	BBC News
4	Azerbaijan	Middle East	Washington Post	Washington Post

4	Azerbaijan	Middle East	Japan Today	Agencies
4	Azerbaijan	Middle East	Metro Toronto	Reuters
5	Ethiopia	Africa	BBC News	BBC News
5	Ethiopia	Africa	Reuters	Reuters
5	Ethiopia	Africa	News24	News24
5	Ethiopia	Africa	San Jose Mercury News	AP
5	Ethiopia	Africa	Scotsman	Scotsman
5	Ethiopia	Africa	Santa Fe New Mexican	AP
5	Ethiopia	Africa	Khaleej Times	dpa
5	Ethiopia	Africa	Washington Post	AP
6	Pakistan	Asia	Monsters and Critics.com	UPI
6	Pakistan	Asia	Expressindia.com	Reuters
6	Pakistan	Asia	WDC Media News	Reuters
6	Pakistan	Asia	CNN	AP
6	Pakistan	Asia	ABC Online	ABC Online
6	Pakistan	Asia	Reuters AlertNet	Reuters
6	Pakistan	Asia	Aljazeera.net	Agencies
6	Pakistan	Asia	BBC News	BBC News
7	Iraq	Middle East	Telegraph.co.uk	Telegraph.co.uk
7	Iraq	Middle East	Scotsman	Press Association
7	Iraq	Middle East	Times Online	Times Online
7	Iraq	Middle East	The Observer	The Observer
7	Iraq	Middle East	San Jose Mercury News	AP
7	Iraq	Middle East	Reuters.uk	Reuters
7	Iraq	Middle East	Reuters	Reuters
8	UK	Europe	Independent	Independent
8	UK	Europe	BBC News	BBC News
8	UK	Europe	Reuters.uk	Reuters
8	UK	Europe	Scotsman	Scotsman
8	UK	Europe	Stuff.co.nz	Stuff.co.nz
8	UK	Europe	Monsters and Critics.com	dpa
8	UK	Europe	New Straits Times	
8	UK	Europe	24 Hour Museum	25 Hour Museum
9	Uk	Europe	Norfolk Eastern Daily Press	Norfolk Eastern Daily Press

9	Uk	Europe	Sydney Morning Herald	Sydney Morning Herald
9	Uk	Europe	Reuters.uk	Reuters
9	Uk	Europe	Independent	Independent
9	Uk	Europe	Mainichi Daily News	Mainichi Daily News
9	Uk	Europe	Channel 4 News	ITN
9	Uk	Europe	BBC News	BBC News
9	Uk	Europe	Metro Toronto	Reuters
10	Iran	Middle East	IranMania	IranMania
10	Iran	Middle East	New York Times	New York Times
10	Iran	Middle East	BBC News	BBC News
10	Iran	Middle East	San Jose Mercury News	AP
10	Iran	Middle East	Newsweek	Newsweek
10	Iran	Middle East	Washington Post	Washington Post
10	Iran	Middle East	Voice of America	Voice of America
10	Iran	Middle East	BBC News	BBC News
11	Israel	Middle East	CBS News	AP
11	Israel	Middle East	Seattle Post Intelligencer	AP
11	Israel	Middle East	Telegraph.co.uk	Telegraph.co.uk
11	Israel	Middle East	Scotland on Sunday	Scotland on Sunday
11	Israel	Middle East	San Diego Union Tribune	AP
11	Israel	Middle East	China Daily	China Daily
11	Israel	Middle East	Scotsman	Scotsman
11	Israel	Middle East	Metro Toronto	Reuters
12	Iraq	Middle East	Boston Globe	AP
12	Iraq	Middle East	Morocco Times	Morocco Times
12	Iraq	Middle East	Guardian Unlimited	AP
12	Iraq	Middle East	Special Broadcasting Service	World News
12	Iraq	Middle East	New York Times	New York Times
12	Iraq	Middle East	Reuters AlertNet	Reuters
12	Iraq	Middle East	AKI	AKI
13	Philippines	Asia	Ninemsn	AAP
13	Philippines	Asia	Xinhua	Xinhua
13	Philippines	Asia	ABS CBN News	ABS CBN News
13	Philippines	Asia	INQ7 Interactive, Inc.	INQ8 Interactive, Inc.

13	Philippines	Asia	Minda News	Minda News
13	Philippines	Asia	Radio New Zealand	Radio New Zealand
13	Philippines	Asia	Santa Fe New Mexican	AP
13	Philippines	Asia	Houston Chronicle	AP
14	Pakistan	Asia	Khaleej Times	dpa
14	Pakistan	Asia	Guardian Unlimited	AP
14	Pakistan	Asia	Ninemsn	AAP
14	Pakistan	Asia	Seattle Post Intelligencer	AP
14	Pakistan	Asia	Xinhua	Xinhua
14	Pakistan	Asia	Gulf Daily News	Gulf Daily News
14	Pakistan	Asia	Melbourne Herald Sun	Melbourne Herald Sun
15	Australia	Oceania	Bangkok Post	dpa
15	Australia	Oceania	Jakarta Post	AFP
15	Australia	Oceania	Advertiser Adelaide	
15	Australia	Oceania	Bloomberg	Bloomberg
15	Australia	Oceania	Scotsman	Press Association
15	Australia	Oceania	Taipei Times	Taipei Times
15	Australia	Oceania	ABC Online	ABC Online
16	India	Asia	Deccan Herald	Deccan Herald
16	India	Asia	NDTV.com	NDTV.com
16	India	Asia	Hindu Business Line	PTI
16	India	Asia	BBC News	BBC News
16	India	Asia	Reuters.uk	Reuters
16	India	Asia	Rediff	PTI
16	India	Asia	Financial Express	New Delhi
16	India	Asia	GG2.net	GG2.net
17	Palestina	Middle East	People'sDaily Online	Xinhua
17	Palestina	Middle East	ABC Online	Reuters
17	Palestina	Middle East	Seattle Post Intelligencer	AP
17	Palestina	Middle East	Reuters	Reuters
17	Palestina	Middle East	Reuters AlertNet	Reuters
17	Palestina	Middle East	Aljazeera.net	Agencies
17	Palestina	Middle East	Voice of America	Voice of America
17	Palestina	Middle East	Malaysia Star	Malaysia Star

18	EU	Europe	Guardian Unlimited	AP
18	EU	Europe	RadioFreeEurope /RadioLiberty	RadioFreeEurope /RadioLiberty
18	EU	Europe	Bloomberg	Bloomberg
18	EU	Europe	New York Times	New York Times
18	EU	Europe	Sify	AP
18	EU	Europe	The Sunday Times	The Sunday Times
18	EU	Europe	People's Daily Online	China Daily
18	EU	Europe	News 14 Charlotte	AP
19	German	Europe	The Sunday Times	The Sunday Times
19	German	Europe	Reuters	Reuters
19	German	Europe	Scotsman	Scotsman
19	German	Europe	Deutsche Welle	Deutsche Welle
19	German	Europe	Business Online	Dow Jones Newswire
19	German	Europe	Financial Times	Financial Times
19	German	Europe	International Herald Tribune	International Herald Tribune
20	Iraq	Middle East	Times Online	Times Online
20	Iraq	Middle East	Reuters.uk	Reuters
20	Iraq	Middle East	Reuters AlertNet	Reuters
20	Iraq	Middle East	Khaleej Times	AFP
20	Iraq	Middle East	Boston Globe	AP
20	Iraq	Middle East	KurdishMedia	AP
20	Iraq	Middle East	ABC News	AP
20	Iraq	Middle East	Almendhar	Reuters

Appendix 8

11/05/2005

The Google World News

Source	Number
24 Hour Museum	1
ABC News	3
ABC Online	3
ABS CBN News	1
Advertiser Adelaide	1
AKI	1
Alaska Highway News	1
Aljazeera.net	4
Almendhar	1
Bangkok Post	1
BBC News	8
Bloomberg	3
Boston Globe	2
Business Online	1
CBS News	2
Channel 4 News	1
China Daily	1
CJAD	1
CNN	2
Deccan Herald	1
Deutsche Welle	1
Expressindia.com	1
Financial Express	1
Financial Times	1
GG2.net	1
Guardian Unlimited	4
Gulf Daily News	1
Hindu Business Line	1
Houston Chronicle	1
Independent	2
INQ7 Interactive, Inc.	1
International Herald Tribune	1
IranMania	1

Source	Number
Jakarta Post	1
Japan Today	1
Khaleej Times	3
KurdishMedia	1
Los Angeles Times	1
Mainichi Daily News	1
Malaysia Star	1
MarketWatch	1
Melbourne Herald Sun	1
Metro Toronto	4
Minda News	1
Minneapolis Star Tribune	1
Monsters and Critics.com	2
Morocco Times	1
NDTV.com	1
New Straits Times	1
New York Times	3
News 14 Charlotte	1
News24	2
Newsday	1
Newsweek	1
Ninemsn	2
Norfolk Eastern Daily Press	1
People's Daily Online	2
Radio New Zealand	1
RadioFreeEurope/RadioLiberty	1
Rediff	1
Reuters	5
Reuters AlertNet	5
Reuters.uk	5
San Diego Union Tribune	1
San Jose Mercury News	4
Santa Fe New Mexican	2

Source	Number
Scotland on Sunday	1
Scotsman	7
Seattle Post Intelligencer	4
Sify	1
Special Broadcasting Service	1
Stuff.co.nz	1
Sydney Morning Herald	1
Taipei Times	1
Telegraph.co.uk	3
The Observer	1
The Sunday Times	2
Times Online	2
Voice of America	3
WashingtonPost	6
WDC Media News	1
Xinhua	4
Total:	155
Amount of Sources	82

Appendix 9

11/05/2005

The Google World News

Primary Source	Number	Primary Source	Number
24 Hour Museum	1	NDTV.com	1
AAP(Australian Associated Press)	2	New Delhi	1
ABC Online	2	New York Times	3
ABS CBN News	1	News24	2
AFP (The Associate Press)	3	Newsday	1
Agencies	4	Newsweek	1
AKI	1	Norfolk Eastern Daily Press	1
AP (The Associate Press)	30	Press Association	2
BBC News	8	PTI (The Press Truss of India)	2
Bloomberg	3	Radio New Zealand	1
China Daily	2	RadioFreeEurope/RadioLiberty	1
CP (The Canadian Press)	1	Reuters	23
Deccan Herald	1	Scotland on Sunday	1
Deutsche Welle	1	Scotsman	5
Dow Jones Newswire	1	Stuff.co.nz	1
dpa (The Deutsche Presse-Agentur GmbH)	4	Sydney Morning Herald	1
Financial Times	1	Taipei Times	1
GG2.net	1	Telegraph.co.uk	3
Gulf Daily News	1	The Observer	1
Independent	2	The Sunday Times	2
INQ8 Interactive, Inc.	1	Times Online	2
International Herald Tribune	1	UPI (United Press International)	1
IranMania	1	Voice of America	3
ITN	1	Washington Post	5
Knight Ridder	1	World News	1
Los Angeles Times	1	Xinhua	5
Mainichi Daily News	1	Total:	153
Malaysia Star	1	Amount of Primary Sources	58
MarketWatch	1	Total of Primary Sources from Agencies	78
Melbourne Herald Sun	1	Percentage of Total of Primary Sources from Agencies in Total of Primary Sources	51%
Minda News	1		
Morocco Times	1		

Appendix 10

11/05/2005

The Google World News

Region	S	S ²
Asia	20%	400
Africa	5%	25
Europe	25%	625
Latin America	5%	25
Middle East	40%	1600
Oceania	5%	25
Total:	100%	2700
HHI:		0.27

* S is the portion of every region in total regions

Appendix 11

10/29/2005

The MSNBC World News

Story	Country	Region	Source
1	Israel	Middle East	MSNBC News Service
2	Israel	Middle East	AP
3	Nicaragua	Latin America	Reuters
4	France	Europe	AP
5	India	Asia	AP
6	Iraq	Middle East	AP
7	Indonesia	Asia	AP
8	Venezuela	Latin America	AP
9	Afghanistan	Middle East	AP
10	Philippine	Asia	Reuters
11	Japan	Asia	AP
12	Iraq	Middle East	AP
13	Iraq	Middle East	Reuters
14	UN	Globe	Reuters
15	Iraq	Middle East	MSNBC News Service
16	Iraq	Middle East	AP
17	South Korea	Asia	Reuters
18	Greece	Europe	AP
19	Spain	Europe	AP
20	Iraq	Middle East	Newsweek
21	Globe	Globe	Newsweek
22	Romania	Europe	Newsweek
23	Pakistan	Middle East	Newsweek
24	Pakistan	Middle East	NBC News
25	Ukraine	Europe	NBC News
26	Pakistan	Middle East	NBC News
27	Mexico	Latin America	NBC News
28	Mexico	Latin America	NBC News
29	Hong Kong	Asia	NBC News
30	Cuba	Latin America	NBC News
31	Russia	Europe	NBC News
32	China	Asia	NBC News
33	Pakistan	Middle East	NBC News
34	Iraq	Middle East	NBC News
35	Hong Kong	Asia	NBC News

Appendix 12

10/29/2005

The MSNBC World News

Region	S	S ²
Asia	23%	529
Europe	17%	289
Latin America	14%	196
Middle East	40%	1600
Globe	6%	36
Total:	100%	2650
HHI:		0.27

* S is the portion of every region in total regions

Appendix 13

11/05/2005

The MSNBC World News

Story	Country	Region	Source
1	Brazil	Latin America	AP
2	Iraq	Middle East	AP
3	Iran	Middle East	Reuters
4	UK	Europe	AP
5	Iraq	Middle East	AP
6	Australia	Oceania	AP
7	German	Europe	Reuters
8	Pakistan	Asia	AP
9	Iraq	Middle East	NBC News
10	Israel	Middle East	AP
11	Ethiopia	Africa	Reuters
12	UK	Europe	AP
13	Russia	Europe	AP
14	Holand	Europe	Reuters
15	Iraq	Middle East	AP
16	Iraq	Middle East	AP
17	Iraq	Middle East	AP
18	Iraq	Middle East	AP
19	Iraq	Middle East	Newsweek
20	International Olympic Committee	Globe	Reuters
21	Uk	Europe	AP
22	Japan	Asia	AP
23	EU	Europe	Newsweek
24	Israel	Middle East	Newsweek
25	Pakistan	Asia	Newsweek
26	Japan	Asia	Newsweek
27	Syria	Middle East	NBC News
28	UK	Europe	NBC News
29	Italy	Europe	NBC News
30	Pakistan	Asia	NBC News
31	Ukraine	Europe	NBC News
32	Pakistan	Asia	NBC News
33	Mexico	Latin America	NBC News
34	Hong Kong	Asia	NBC News
35	Cuba	Latin America	NBC News
36	Russia	Europe	NBC News
37	China	Asia	NBC News

38	Pakistan	Asia	NBC News
39	Iraq	Middle East	NBC News
40	Hong Kong	Asia	NBC News

Appendix 14

11/05/2005

The MSNBC World News

Region	S	S ²
Africa	3%	9
Asia	24%	576
Europe	27%	729
Latin America	8%	64
Middle East	32%	1024
Globe	3%	9
Oceania	3%	9
Total:	100%	2420
HHI:		0.24

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