Reading Head: Self, Information and Media Use

Self, Information Topics of Interest, Information Seeking Media Use

among Korean Young Adults

*Hyunjoo Lee

hyunjoolee69@gmail.com

*Joseph Woelfel

jwoelfel@galileoco.com

* Department of Communication, University at Buffalo, The State University of New York,
Buffalo, New York, 14260-1060

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Abstract

The study attempts to explore media use patterns pinpointing how particular media such as information sources and purveyors of concrete information topics (e.g., international, national, and local news) are located and interrelated in self-conceptions. The results in this study suggest that information-seeking media use patterns overlap between traditional and new media channels. In addition, the cognitive map reveals that participants perceive the configuration of the whole structure across information topics and the media in a consistent fashion, which shows a genre repertoire of information topics and media channels. The findings confirm that the information-seeking media use attitudes of young adults are slowly moving toward new media consumption on a routine basis. Despite such changing attitudes of young adults, their belief in traditional media for obtaining hard news was not so much changed. Interestingly, young women in the Korean context are found to be more active seekers of all types of information across media, although gender-split patterns of information-seeking media use — women's preferred information types of local news, nutrition and food, and entertainment — still exist. It seems that the social development of gender roles and status and women's more expressive and relational use of interactive mediated communication channels including FtF reflect the changes in gender differences.

Key Words: Galileo Model, Gender Difference, Genre Repertoire, Information Seeking Behavior, Media Use, Neural Network, Self-Concept

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Introduction

The media plays an essential role of mediating between people and the social world by disseminating information and news (McCombs & Reynolds, 2002). People are aware of all the available media channels as news or information sources to which they can make viable access. There exists a plethora of information from a variety of sources provided to people. In addition, in the electronic and digital media environment, the sources for information have expanded from a few limited channels to almost limitless channels. The seemingly limitless extension of information channels of media may affect media use patterns of information-seeking behaviors in one way or another. Nonetheless, according to studies of genre repertoire (Orlikowski & Yates, 1994; Yates, Orlikowski, & Okamura, 1995), typified communicative actions repeatedly reconstruct genres in recurrent situations. From this point of view, people tend to recognize and concentrate on specific, focused information in the process of the interaction between themselves and the whole media environment.

The interrelation between media channels and people's perception of categorizing them as principal information sources has been little studied on the basis of self-reflexivity. The current study aims at providing insight into the role of self-concept in using information topics of interest and media sources for obtaining such topics. In the investigation of the role of self-concept, the study considers that one of the effects of the changing and converged media environment on people's information-seeking behaviors is a rich user experience of such media as a variety of information sources. In media use as information sources, source repertoire

studies (Reagan, 1996; Reagan, Pinkleton, Chen, & Aaronson, 1995) revealed that the greater the interest in information topics, the more the number of information sources available for the topics of interest. However, Reagan's research has overlooked the consideration of self-conceptions. Therefore, from the perspective of self-conceptions which is viewed as the subject of the interaction with the media environment (Cheong, et al., forthcoming, 2009), the study attempts to explore the media use patterns pinpointing how particular media as information source and purveyors of concrete information topics (e.g., international, national, and local news) are located and interrelated.

Self-Concept as a Predictor of Media Use

Prior studies have provided evidence that the intrinsic attributes of media technologies themselves and information-seeking perceptions are among the main purposes in media use (Flanagin & Metzger, 2001; Lee, Ryu, & Kim, forthcoming). Particularly, uses and gratifications theory provides evidence for this interpretation. For example, self-identity is regarded as the psychological tendency toward personal characteristics which could be predictors of intention and behavior of media use. The theory assumes that identity has indirect or direct effects on intention and behavior of media use.

In our media technology-dominated society, the recognition of social reality can be achieved through acquisition and delivery of information provided by every medium including face-to-face communication surrounding human beings. From the perspective of social or symbolic interactionism (Blumer, 1969; Mead, 1934), individuals perceive social reality through the ongoing interaction between the reflexive self and media environment for the acquisition of information. Media use behaviors for acquiring information are closely related to the shared meanings of media technology as information source. Considering the shared meaning of

symbols given to specific media technology and the accumulated collective experience[1] of media technologies through their use, whether historically or culturally, we can afford to recognize the overall media arrangement in comparison of similarity to dissimilarity of individual mediums. The comparative process reflects the trajectory of media use on the basis of the spatial-time frame.

Our fundamental understanding of the whole media landscape is based on the informative needs of the self to realize social reality on the one hand and, on the other hand, how this "landscape" is developed by the self applying to media or media content through the experience of seeking information. The active self perceives media configuration by mapping out a series of media for informative uses, placing them into informative categories (e.g., international, national, financial, entertainment news), defining him or herself or his or her actions by those categories. Information-seeking behaviors are performed on the basis of the collective consciousness or the shared meaning other surrounding semantic networks of the use of media as information sources. The relationship between the self and the use of media as information sources is described as the behavior of reflective media use. The self forms or changes the relationship by classifying the categories based on the similarities to or differences from him or herself. The experience of information acquisition contributes to reinforcing the perceptions of media use as information sources, at least until a new medium appears, extending or sometimes transforming these perceptions.

Information Seeking Behaviors and Media Use

Uses and gratifications theory assumes that media use behaviors are vigorous activities to satisfy needs and wants which individuals search for. Because media use is an integrated part of most daily routines, it is always interrelated with other activities (e.g., leisure, physical exercise,

or conversation). Media use behaviors, therefore, compete with other activities for psychological and social gratifications. To illustrate this point, the theory focuses on what gratifications people are satisfied with in the use of media (Blumler, 1979; Katz, Blumler, & Gurevitch, 1974; Lin, 1996; Rubin, 1983). However, this viewpoint overlooks the relationship of people to the context of media content use despite supporting the idea that the importance of media use stems from its gratification of information seeking for surveillance and social integration. When they encounter a new medium, individuals reorganize their use behavior by integrating the unfamiliar medium into preexisting practices of media, and repeatedly constitute and adapt their media use behaviors to their actual routines.

Meanwhile, definitions of media use for information sources may include the development and advancement of media technologies. As Atkin (1992) pointed out, the perceived functional similarity of an array of media technologies promotes the specific clustered use of subsequent media. Accordingly, the perception of interrelated media clusters among segments of users can lead to different clustering of media technologies (Vishwanath & Chen, 2006). The enduring evolution of communication technologies has changed not only the media environment but also users' media patterns. Specifically, Internet and mobile applications for user-generated content sharing of blogging and video have enhanced interactive and personalized information seeking (reference). The development of interactive and personalized media has had users more active information seekers just beyond traditional media exposure to news information.

According to the survey results conducted by *the Pew Research Center for the People & the Press* (Kohut, 2008), news audiences are segmented into four groups: Integrators, who use both traditional media and the Internet for getting news, Net-Newsers, who refer to the Web

rather than traditional media, Traditionalists, who still adhere to traditional media, and the Disengaged, who rarely have an interest in news or consume news (Kohut, 2008). Integrators, who are well-educated, affluent and middle-aged, use television as their main information source and have greater interest in national and sports news than the other groups. Net-Newsers, who are affluent, well-educated and relatively young, mainly men and heavily technology-oriented, regularly engage in news consumption online rather than watching nightly network news broadcasts, and have interest in technology news. Traditionalists, who are older, less educated and less affluent, rely heavily on TV news because they easily understand visual information. They rarely use the Internet to get news and have a strong interest in the weather and little interest in science and technology news (Kohut, 2008).

With regard news sources for information acquisition, respondents still mention TV as the main news source. However, the majority of participants use the Web and traditional media at the same time. Online news readership has gradually increased since 1993 in the United States as news readership and TV viewership have declined (Kohut, 2008). Kohut (2008) reported that except for local TV news (52%), the 2008 news consumption via newspaper (34%), radio (35%), cable TV (39%) and the Internet (37%) were much more balanced when compared to news consumption of those media. The 2006 media consumption as information sources consisted of newspaper (40%), radio (36%), cable TV (34%), local TV (54%) and the Internet (31%).

Media Repertoire

Media repertoire is referred to as the repeated specific media use that people engage in on a regular basis. As the converged and integrated media have increased and permeated into daily lives, they may actually come to supplement or supplant traditional media.

Extended from the discussions of new media's supplementary role, one can assume that users of a new medium are likely to be motivated to use the content consistently with their predilection for a particular genre or content. The motivation to use content compatible with an existing preference is explained by the "genre repertoire" of media use, conceived from the theory of channel repertoire. Channel repertoire refers to audiences' propensity to repeatedly use a specific set of contents, composing the repertoire in media consumption pattern, even in the multimedia environment of abundant channel choices (Crowston & Williams, 2000; Ferguson & Perse, 1993; Heeter & Greenberg, 1985; Reagan, 1996; Yuan & Webster, 2006).

Media use studies focusing on TV/cable viewership utilize "channel repertoire," which is defined as "the total number of channels that viewers watch regularly" (Heeter & Greenberg, 1985). Having been freed from limitations of time and space and thus overcome inflexible content schedules to which users have needed to conform, new media technologies have offered users more choices of channels to consume contents with more flexible availability. The prior literature, however, witnesses that even in the multimedia environment, users' channel repertoire did not increase to match the number of available channels they could watch (Ferguson & Perse, 1993). Instead, viewing time and cable subscription were found to be strong predictors of users' larger channel repertoire (Ferguson, 1992; Ferguson & Melkote, 1997; Yuan & Webster, 2006).

Despite meaningful findings, the prior channel repertoire studies did not take into account people's consistent communication needs and interests, which traverse various media. The consistent needs and interests enable versatile utilization of a new media technology along with the existing ones. While the notion of genre repertoire shares a similar premise with channel repertoire theory, it puts emphasis on the repetitive selection of content instead of choosing the channel based on an individual's interests and needs.

Genre repertoire is referred to as "the set of genres routinely enacted by [communication] members in the community" (Yates, et al., 1995, p. 353). Yates and Orlikowski (1992, p. 299) delineated genres as "typified communicative actions characterized by similar substance and form and taken in response to recurrent situations". Stated differently, genre defined here not only subsumes a set of media contents but also various social-communicative activities. For example, common genres in genre repertoire include not only typical TV programs such as drama, talk show, or news but also interpersonal activities such as face-to-face gatherings, phone calling, Instant Messaging or E-mailing. Genre repertoire theory is useful to make intertwined communication activities, ranged from the interpersonal to the media-based, more easily recognizable and understandable based on audiences' media use behaviors. In the use of traditional media, people reinforce and change genres by reproducing and adapting to genre repertoire, and in the use of a new communication medium, they also attempt to reinforce their own preexisting genre repertoire that is familiar from traditional media and adjust such genre repertoire to the novel genres of a new medium (Crowston & Williams, 2000).

Reagan's study (1996) is worth looking into in that it explored the relationship of source repertoire to the audience's interest in certain topics. His study implied that people made use of media source repertoire from face-to-face communication to mass media depending on the areas that they had interest in. His finding as to cross-channel clusters of information sources provides a foothold for this study that attempts to explore the consistency and compatibility of audience's content consumption behaviors across different media.

In the study, genre repertoire can be redefined as media repertoire indicating the composition of genres that an audience recurrently uses on a routine basis in everyday life. Genre repertoire is also relevant to Atkin's (Atkin, 1992, p. 53) conceptualization of media

consumption patterns as "functional similarity [of media technologies] and need compatibility [of media contents]." The premise behind these concepts is that individuals tend to perceive and use different media by structuring coherent patterns in consuming various forms of media contents within the domain of their interests and needs. Hence, the audience employs his or her own genre repertoire or media repertoire by evaluating and choosing cross-channel clusters of media contents that they want to be satisfied with, either habitually or intentionally.

In line with the perspective of genre repertoire, the study assumes that the functional image of new media use as information source will be different according to individuals' preexisting preferred communication activities achieved through different media use (e.g., mobile phone, newspaper, TV, Internet, blog, online video). Also, an individual's consistent content use pattern, defined as genre repertoire above, can influence the perception and actual behavior of information-seeking media use.

Gender Difference in Media Use

Gender difference in preferred content use across different media is mainly discussed in terms of gender stereotyping. It was found that females favored entertainment content such as soaps, medical series, and romances, while males preferred action-oriented content such as an adventure and sports (Gibson & Drane, 2006; Hansen & Hansen, 2000; McCarty & Shrum, 1993; Oliver, 1993; Potts, Dedmon, & Halford, 1996). Gender stereotyped differences in news use were also found that females were more likely to seek interpersonal and socializing information topics such as life and community issues, while males were more likely to consume achievement and performance information topics such as sports and business (Knobloch-Westerwick & Alter, 2007). The analysis of gendered e-mail use revealed that women considered e-mail an expressive tool for maintaining emotional intimacy and sharing with family

and friends, while men tended to consider it an instrumental tool for scheduling common activities (Boneva, Kraut, & Frohlich, 2001).

Despite these findings, stable gender differences cannot be widely applied to the culture at large and should be contextually and situationally dependent (Deaux & Major, 1987). Changes in social status, roles, and life experiences in women are pointed out as the main reason leading to reducing gender difference (Spence & Buckner, 2000). Spence and Buckner (2000) concluded that women have had more agentic traits over time but they have still identified themselves more expressive traits than men.

Research Questions

RQ$_{1a}$: What is the picture of the whole structure of the self, information topics and media sources?

RQ$_{1b}$: How does the self perceive information topics and media sources?

RQ$_2$: How does the relationship between information topics and media sources? What are relative distances of the groupings among them?

RQ$_3$: What are the differences in the cognitive configuration of information topics and media sources between males and females?

Method

Galileo Model as Neural Network

In studies of neural networks, which mainly delve into the communicative processing, the existence of collective consciousness representing group properties of beliefs, attitudes, or acts can be measured by any change of sets of nodes in interpersonal or mediated communication networks (Woelfel & Fink, 1980). Group properties are referred to as the relationship between

objects and/or concepts. Under the considerations of relational properties in the neural network, objects and/or concepts are hierarchically categorized with a sequent nested subset; for example, "with categories nearest to 'experience' being 'basic,' higher level concepts 'superordinate,' and lower level categories 'subordinate'" (Woelfel, Scott, & Yum, 1988, p. 5).

The Galileo model is, therefore, considered as "a fuzzy logic neural artificial network" (Woelfel, 1998, p. 12). Fuzzy boundaries imply a consecutive continuum of meanings as well as continuous redefinition by the members involved at a time-space frame. The Galileo model develops a multidimensional construct structure which constitutes the consecutive continuum between interpoints of the distances on the Riemannian space. In a parallel to the spatial (geometric) map, in other words, the Galileo model graphically displays such gradation points of any move which can activate the vertical and horizontal interconnected network of the given objects and concepts as a whole, and which, therefore, represents the cognitive process at any point in time or over time.

The application of the Galileo model, with the aim of applying such scientific methods as applied in the physical science, to communication research has some advantages other than conventional methods — considerations of 1) relational properties of the neural network between objects and/or concepts, 2) the relativity of constitutive construct structure consisting of comparison measurements between objects and/or concepts, 3) timely and contextually relevant constitutive structure on the basis of time-space frame.

The advantage of the Galileo model lies in emphasizing the importance that rather than the direct inference to the population, observations are for the accurate measurement of the sampling parameters along with reports of sampling errors unexplained as the area of uncertainty. At the heart of the argument of the idea is the consideration of the relativity and comparison of

measurement on time-space frame, not the fixed and absolute standardized measurement. Measurements mean relative values in terms of a comparison to a standard. Therefore, it is important that replications and repeated tests should be made by other researchers in the timely and contextually fashion. (Woelfel & Stoyanoff, 2006).

The Galileo model is a multidimensional space in which objects and/or concepts are arrayed based on distances of similarity and dissimilarity between any objects and/or concepts including the self. The very interpoint distances reflect closenesses and differences in shared meaning as collective consciousness. The more shared properties any objects or concepts have, the closer they are located in the Galileo space. Conversely, the more different the properties are, the further apart they are.

Sampling Procedure

The survey of print version was completed by college students of communication department at KunKuK University at Chungju and those of management department at Aerospace University at Kyounggi in June, 2008. The final valid samples yielded 150. Males consisted of 62.6 % and females 37.4% in the sampling.

Measurement

The survey was administered with the pair-comparison questionnaire which included all the pairs between the self, information topics, and diverse media ranging from traditional to new media. Responses to the pair-comparison items were analyzed with Galileo version 5.6 (v5.6). The maximum value was set at 1000 in order to eliminate missing and extreme data. The total concepts observed were 22: yourself, 9 concepts of information topics of interest and 12 concepts of information sources. For comparison to standard as reference frame, the instruction that international news and national news are 100 units apart was given to the subjects in head of survey items.

Information topics consisted of international news, national news, what's going on in the community (local news), science/technology, medical/ health information, nutrition/food, financial information, sports, and entertainment. In addition, information sources consisted of newspaper, magazines, TV, radio, mobile phone, face-to-face, reading news on the Internet, e-mail, blogging (both reading and posting), online video (both watching and posting), Instant Messaging (IM), and IPOD/MP3 players (including Podcast).

Results

For RQ_{1a}, Table 1 listed mean values of the distances between all the compared pair concepts included, indicating similarities and dissimilarities among comparison pairs. The closest comparison pair was national information and news online ($M = 70.9$, $SD = 107.3$), while the farthest comparison pair was nutrition and food, and MP3 ($M = 272.3$, $SD = 268.6$). Overall, as seen in Figure 1, the trend in information-seeking behaviors in media use showed consistent patterns; TV was perceived as the closest to all types of information, followed by news online, then by newspapers, magazines and blogs. Mobile media such as mobile phones and MP3 players were perceived as the farthest from all types of information. In addition, national news was the closest to almost all media channels, while nutrition and food was the farthest from almost all media channels.

Table 3 presents the spatial coordinate matrix, which shows fifteen dimensions in real space with positive eigenvalues, and seven dimensions in imaginary space with negative eigenvalues, meaning non-Euclidean space. The one-dimension in real space explained 34.6% and the two-dimension in real space cumulatively accounted for 53.9%.

With regard to RQ_{1b}, self-concept was closer to national news than other types of information of interest. The point farthest located from self-concept was international

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information. It was also much closer to news online and portable media than other media channels (see Table 2). TV and face-to-face as a category were relatively closer to self-concept among traditional media channels.

The cognitive configuration of the concepts was measured by the dimensionality of the multidimensional Riemann space. Figure 3 visualizes the cognitive map of the whole structure in three-dimensional space, explaining 70.9% of the total variance in real space. For RQ_2, online media tended to constitute a single cluster, indicating that as blogging was surrounded by other online media, news and video online were located closer to entertainment information. Traditional media such as newspapers, magazines, radio and TV tended to be clustered, as located near to hard news types, that is, nutrition and food, medical information and health, science and technology, and national information. Self-concept was clustered around interpersonal, interactive, and portable media channels. Self-concept tended to be closer to online media channels than traditional media channels.

With regard to RQ_3, mean values of the distances between other concepts and females were considerably different from those of males, indicating the location of closer points to all concepts than that of males except for sports information (See Table 1). In order to test gender difference of comparison pairs statistically, a t-test was employed. The t-test results revealed gender-perceived differences in information topics of interest in: local information ($t = 2.77$, $p < .01$), medical and health information ($t = 1.79$, $p < .10$), nutrition and food information ($t = 3.85$, $p \leq .000$), and entertainment ($t = 2.35$, $p < .05$). Obviously, females were more interested in news about local events, health-related or healthy eating and diet information, and entertainment enjoyment than men. Females were also more likely to be familiar with media channels such as magazines ($t = 3.25$, $p \leq .001$), TV ($t = 1.78$, $p < .10$), radio ($t = 3.04$, $p < .01$), FtF ($t = 4.09$, p

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$\leq .000$), mobile phones ($t = 2.54$, $p \leq .01$), news online ($t = 1.96$, $p < .06$), blogging ($t = 2.50$, p $\leq .01$), and online videos ($t = 1.72$, $p < .10$) than males. Overall, the results showed the likelihood that females tended to perceive more available media channels for acquiring information rather than males did.

Figures 2 and 3 display the perceived gender gap in the interrelated connections between information topics and media sources. Females showed the greatest preference for TV for obtaining almost all types of information topics. For women, news online and blogging were also more preferred than newspapers and magazines for information on those topics. The first and second most used media sources of males were found to be the same as those by which females sought diverse information topics, but females tended to perceive traditional media as information sources more closely interrelated to all types of information topics than males did. Nonetheless, no significant difference of the constructive structure was found between them.

Discussion

Overall, participants perceive the configuration of the whole structure across information topics and the media in a consistent fashion (See Figures 1, 2, 3). As seen in Figure 4, the relative closeness of hard news (e.g., finance, science and technology, and nutrition) to and its grouping around traditional media show the strongly interrelated connections of the concepts. The interpoints of soft news (e.g., entertainment) close to online media indicate the interconnected associations of online media with entertainment information. This means that young adults tend to perceive traditional media as more of a hard news source and, on the other hand, online media as more of a soft news source.

Information seeking of information topics between traditional and new media blend together. Traditional media still function as stable news sources, but online news and blogging

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are also seen as flexible news sources for some information topics, which replace or supplement traditional media in the changing media environment. Portable media of mobile phones and MP3 players are located at the farthest points from all types of information topics. These stable and flexible information seeking behaviors can also be explained from the perspective of the media repertoire. These information-seeking behaviors constitute users' consistent media repertoire, which is projected in the patterns of the relationships between information topics and media channels.

In the neural network, it could be assumed that the close topics from the self point would be perceived more important: the distant topics from the self point would be perceived less important. Moreover, in media source use for acquisition of interested topics, it could be assumed that the close media source from the self point would be perceived more important: the distant media from the self point would be perceived less important. In terms of self-concept, the findings reveal that young adults are more interested in national news than any other type of news information. They perceive personalized media as important communication vehicles, when considering self-concept clustered around face-to-face, online interactive-mediated, and portable media channels. The results imply that participants apparently attach greater importance to national news and interpersonal and personalized connections with others.

The results of gender differences show that females are more likely to be interested in almost all types of information genres and feel familiarity with more diverse media channels than males. Women's preferred types of information — local news, health or nutrition, and entertainment — indicate the observable differences from those of men. Interestingly, males feel only sports information is close to them, even if there is no statistically significant gender difference. Consistent with previous studies showing that gender predicted media use behaviors

(Gibson & Drane, 2006), males are more likely to perceive sports information as a preference than do females. The reasons for these differences can be explained by different gender roles in society (Eagly & Steffen, 1984), because stereotyped gender roles influence gender-typed and topic-specific information patterns across the media (Knobloch-Westerwick & Alter, 2007). The results are also in line with women's attitudes of favoring interpersonal and interactive mediated communication in previous research, which provides evidence of gender differences in email use for personal relationships (Boneva, et al., 2001).

However, the results of this study showed that the acquisition of preferred types of information and media familiarity by gender can be context dependent. Young women in the Korean context can be understood as more active information seekers for all types of information across media, although gender-split patterns of information-seeking media use still exist. Young women's information-seeking media use behaviors can be seen as specific types of situationally improvised actions. As Spence and Buckner (2000) and Deaux and Major (1987) have pointed out, the changing but stable gender roles may influence women's perception of information topics and media channels.

Conclusion and Limitation

The study attempted to explore media use patterns pinpointing how particular media as information sources and purveyors of concrete information topics were located and interrelated in self-conceptions. It can be concluded that young media users tend to perceive the composition and configuration of diverse media and integrate them into a media ensemble for acquisition of the information they are interested in.

The results of this study suggest that information-seeking media use patterns overlap between traditional and new media channels. The findings confirm that information-seeking

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media use attitudes of young adults are slowly moving toward new media consumption, specifically online news and blogging, on a routine basis. It seems to be imperative for young users to shift from traditional to new media in information acquisition. Despite such changing attitudes of young adults, the belief in traditional media for obtaining hard news has not changed very much.

There are some limitations of the study. Cross-national or older-aged generation sampling may yield different results and give an opportunity for more accurately analyzing information-seeking behaviors. For example, age was found to be the critical factor determining the difference in media use as an information source (Kohut, 2008). The younger the media users, the more likely they are to use the Internet as a news source. The older they are, the more likely they are to spend time watching TV and reading newspapers to get news.

In addition, one-point time research always has the limitation of not analyzing the evolutionary trend of social phenomena over time. This study found that the constitutive structure of information-seeking behaviors was mapped out, but due to this limitation, the analysis may be tentative. Therefore, the analysis of samples from cross-national or different aged populations, as well as time series analysis, should be conducted for a more precise explanation and prediction for information-seeking media use behaviors.

Table 1

Mean Matrix of Compared Pair Concepts between Information Topics, Media and Self

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	--																					
2	146.8	--																				
3	253.3	142.8	--																			
4	123.3	108.2	126.2	--																		
5	139.8	116.7	122.7	106.7	--																	
6	154.0	109.5	113.6	110.7	95.6	--																
7	112.4	91.4	115.0	118.1	146.4	195.6	--															
8	114.9	87.0	130.1	151.0	153.7	184.7	206.7	--														
9	167.6	94.5	139.1	224.8	199.7	222.1	211.2	99.3	--													
10	151.6	88.7	94.5	120.6	135.6	139.2	104.5	92.6	84.4	--												
11	150.1	116.5	151.4	131.7	134.7	128.2	124.7	92.2	82.7	98.5	--											
12	99.9	73.9	104.5	106.8	109.8	107.9	94.9	80.3	78.9	112.1	138.7	--										
13	163.8	92.3	118.0	151.8	136.9	155.7	107.3	97.7	87.6	121.6	144.8	86.4	--									
14	200.7	120.2	144.9	165.6	160.8	153.4	145.0	126.4	141.3	142.9	160.3	116.3	149.6	--								
15	195.4	119.9	155.1	143.1	186.7	235.3	181.4	165.9	152.2	170.4	178.2	118.1	173.1	123.2	--							
16	88.8	70.9	106.4	94.4	124.7	139.2	99.6	90.0	84.0	123.0	139.7	96.0	139.5	145.1	159.7	--						
17	158.4	102.5	163.3	149.3	184.2	191.8	146.9	186.7	156.8	175.6	172.5	151.4	178.6	150.7	154.3	118.7	--					
18	136.7	94.6	149.6	128.7	140.4	146.9	145.9	140.9	110.7	154.5	155.7	140.3	164.1	164.7	164.1	105.7	130.7	--				
19	126.7	112.9	158.6	135.6	169.1	183.6	183.0	128.0	115.6	184.3	169.3	113.2	188.5	167.7	149.9	105.6	130.2	102.3	--			
20	177.4	140.0	179.6	168.6	207.8	203.1	208.7	170.7	140.5	203.2	191.2	149.2	184.3	141.9	117.4	129.4	126.3	106.9	134.4	--		
21	211.1	164.2	208.6	144.0	246.4	272.4	259.5	245.7	154.7	240.1	232.2	181.8	178.4	206.6	103.4	166.7	168.3	143.1	151.2	171.0	--	
22	181.2	87.0	147.0	136.8	132.1	130.8	121.2	131.6	124.0	127.6	156.7	104.1	164.9	115.0	89.1	97.8	108.9	106.9	132.1	119.3	95.5	--

Note: 1= International Info, 2 = National Info, 3 = Local Info, 4 = Science & Technology, 5 = Medical & Health Info, 6 = Nutrition & Food, 7= Financial Info, 8 = Sports, 9 = Entertainment, 10 = Newspaper, 11 = Magazine, 12 = TV, 13 = Radio, 14 = Face to Face, 15 =Mobile Phone, 16 = Reading News Online, 17 = Email, 18 = Blogging (Posting & Reading), 19 = Online Video, 20 = Instant Messaging (IM), 21 = MP3, 22, = The Self

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Table 2

Spatial Coordinate Matrix

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	-25.7	-63.8	113.8	32.9	-2	27.4	11	-2.5	0.2	2.2	-5.8	8.4	4.3	2.5	-8.5	0.4	0.2	-1.4	-18.7	-49.3	-27.5	48.9
2	-4.9	3.3	0.5	7	-6.4	-6.3	10	-22.3	9.6	-14.1	-0.6	-27.5	-18.1	-25	20.3	0	4.6	4.1	10.7	-26	-9	29.3
3	-36.5	40	-90.7	-22.6	18.4	-42.5	-9	49	-7.2	0.3	1.3	6.5	5	-0.5	-2.5	-0.3	-0.9	3.5	-10.5	-55.1	-21.7	46.8
4	-18.4	-80.5	-26.5	12.3	46.2	18.7	-32.6	13.2	-31	-10.6	-18.4	-4.1	-8.7	3.1	-1.9	-0.1	0	1.3	24.6	34.4	-56.8	7.5
5	-77.8	-39.5	-18.1	-21.4	25.6	17.5	6	-1.4	23.6	22.9	37.4	-23.2	26.1	5.5	-6.9	-0.1	3	-5	17.5	-3.5	3.6	-21.3
6	-96.8	-46.1	-24.6	-78.5	12.8	1.8	24.4	-32.3	-3.8	-17.6	-10.7	19.1	-3.8	-6.9	2.1	-0.1	0.3	-0.8	-28.2	4	-2	-62.3
7	-66	-36.7	-24.1	91.9	-51.1	-26.1	2.9	15.2	4.5	18	7.3	10.3	-10.9	3.3	8.5	-0.1	-1.7	-3.4	1.4	-8.1	-5.7	-78.6
8	-33.4	67.3	55.4	-27.3	8.5	38.5	-16.6	28.1	0.6	-3.2	-14.9	-30.7	-1.7	1.9	3.8	0.2	-5.4	8.2	-0.1	-14	6.9	-60.4
9	42.5	106.4	48.3	-2.7	6.8	-33.1	6.1	-14.9	10.2	0.9	5.5	14.7	6.1	1.5	-4.1	0.2	2.7	1.2	7.1	14.9	-76.3	-41.2
10	-67.7	47.7	-4.6	24.6	1.4	-11.1	-35.4	-15.6	10.2	7.5	-33	-0.2	-7.3	-14	-19.7	0	2.5	-14.5	4.7	4	43.2	3.9
11	-56.8	34.6	27.8	2.4	1.5	-7.3	-54.8	-42.2	-34	-6.9	28.1	16.4	8.2	9.9	11.6	0.1	-1.2	3.5	4.4	-2	30.1	29.4
12	-20.2	11.3	4.3	12.3	11.6	30.9	33.2	21.9	17.5	-7.8	2.9	33.3	4.1	-18	-1.6	0	-1.3	21.6	28.3	14.3	30.4	19.9
13	-30.4	50.4	-7.2	46.1	40.7	-3.5	65.3	-2.9	-29	-5.1	7.6	-14.7	-0.2	2.5	0.5	0	-2.3	-15	-13.4	32.7	10.2	35.9
14	1.8	34.9	-46	-15.1	-58.9	52.8	16	-9.2	3.3	-12.1	2.6	0.1	-23.5	32.7	-7.1	-0.2	2.3	2.8	6.6	-5.9	-0.6	20.7
15	84.2	14.3	-45.4	31.3	-3.6	60.7	-30.3	7.6	-0.3	12.8	12.4	0.4	7.3	-16	0.8	-0.2	2	6.6	-40.9	23.3	-6.4	-5.2
16	-1.7	-14	26.1	-0.6	-2.3	-29.1	1.1	30.7	13.4	1.1	-33	-1	19.8	23	14.1	0.1	4.4	6.7	-10.9	29.9	28.2	16.4
17	47.7	-37.4	-4.8	8.1	-63	-41.5	-0.5	-7.3	-6.3	-45.9	6.9	-19.7	18.6	-6.9	-13.9	0	1.8	9.3	-1.6	11.5	4.6	-4.1
18	31.1	-29.4	22.2	-33.6	2.3	-45.9	4.7	-12.3	-4.8	47.9	7.9	-10	-25.1	0.6	-7.5	0.1	-1.5	20.1	-7.5	20.6	10.2	22.7
19	50.7	-22.8	45.5	-35.8	5.9	-12.4	-18.9	47.1	22.7	-20.8	28.8	9.2	-21.6	-2.4	1.9	0.2	-0.3	-22.6	-2.6	18.5	15.5	7
20	82.9	-6	6.6	-46.8	-53.9	13.4	17.8	11.4	-46	28.1	-11.4	6.7	13.3	-11	3.8	0	0.7	-15.4	18.7	-11.8	9.3	-10.4
21	154	-21.8	-20.3	25.2	70.9	-7.9	5.8	-22.6	0.3	-8.9	-4.5	3.6	-2.3	11.9	-1.8	-0.1	0.3	1	6	-40.5	36.1	-51.7
22	41.1	-12.3	-37.9	-9.7	-11.5	5.2	-6.3	-38.7	46.4	11.4	-16.5	2.4	10.4	2	8.2	-0.1	-6.3	-11.7	4.3	8	-22.3	46.7
EigenValue	79371	44250	38991	27103	23430	19235	13879	13535	9263	7820	6752	5284	4172	3511	1764	0.4	-160	-2522	-5659	-13340	-17337	-30179
Variance (%)	34.6	19.3	17	11.8	10.2	8.4	6.1	5.9	4	3.4	2.9	2.3	1.8	1.5	0.8	0	0.1	1.1	2.5	5.8	7.6	13.2

Table 3

Mean Differences, Standard Deviations, and t-values by Gender

Interested Info & Media	Female (SD)	N	Male (SD)	N	t	p-value
International Info	160.45 (149.5)	56	193.55 (179.54)	94	1.16	0.25
National Info	72.32 (67.2)	56	95.77 (113.5)	94	1.59	0.11
Local Info	106.75 (108.1)	56	170.94 (176.1)	94	2.77	0.006**
Science & Technology	134.5 (165.9)	56	138.21 (143)	94	0.15	0.86
Medical & Health Info	105.18 (102.9)	56	146.7 (154.8)	94	1.76	0.076#
Nutrition & Food	79.64 (74.9)	56	159.87 (74.9)	94	3.85	.000***
Financial Info	112.45 (152.8)	56	125.05 (159.3)	94	0.48	0.64#
Sports	147.29 (182.9)	56	122.24 (152.1)	94	-0.9	0.37
Entertainment	86.8 (129.1)	56	146.11(179.3)	94	2.35	0.02*
Newspaper	107.2 (111.4)	56	139.68 (180.1)	94	1.22	0.23
Magazine	105.89 (107.7)	56	185.33 (191.8)	94	3.25	0.001***
TV	75.64 (137.9)	56	121.03 (158)	94	1.78	0.077#
Radio	113.13 (106.1)	56	195.81 (225)	94	3.04	0.003**
Face to Face	59.38 (66.5)	56	148.14 (192.1)	94	4.09	.000***
Mobile Phone	56.13 (66.2)	56	108.8 (182.2)	94	2.57	0.012*
News Online	71.57 (85.4)	56	113.4 (174.4)	94	1.96	0.052*
E-mail	94.46 (104.1)	56	117.46 (136.8)	94	1.08	0.28
Blogging	76.04 (85.9)	56	125.34 (155.6)	94	2.5	0.014*
Online Video	102.73 (141.9)	56	149.56 (171.8)	94	1.72	0.088#
IM	102.8(153.2)	56	129.11(178.4)	94	0.92	0.36
MP3	80.14(110.9)	55	104.12(147.0)	94	1.05	0.29

Note: # <.1 *< .05 **< .01 ***< .001

Figure 1

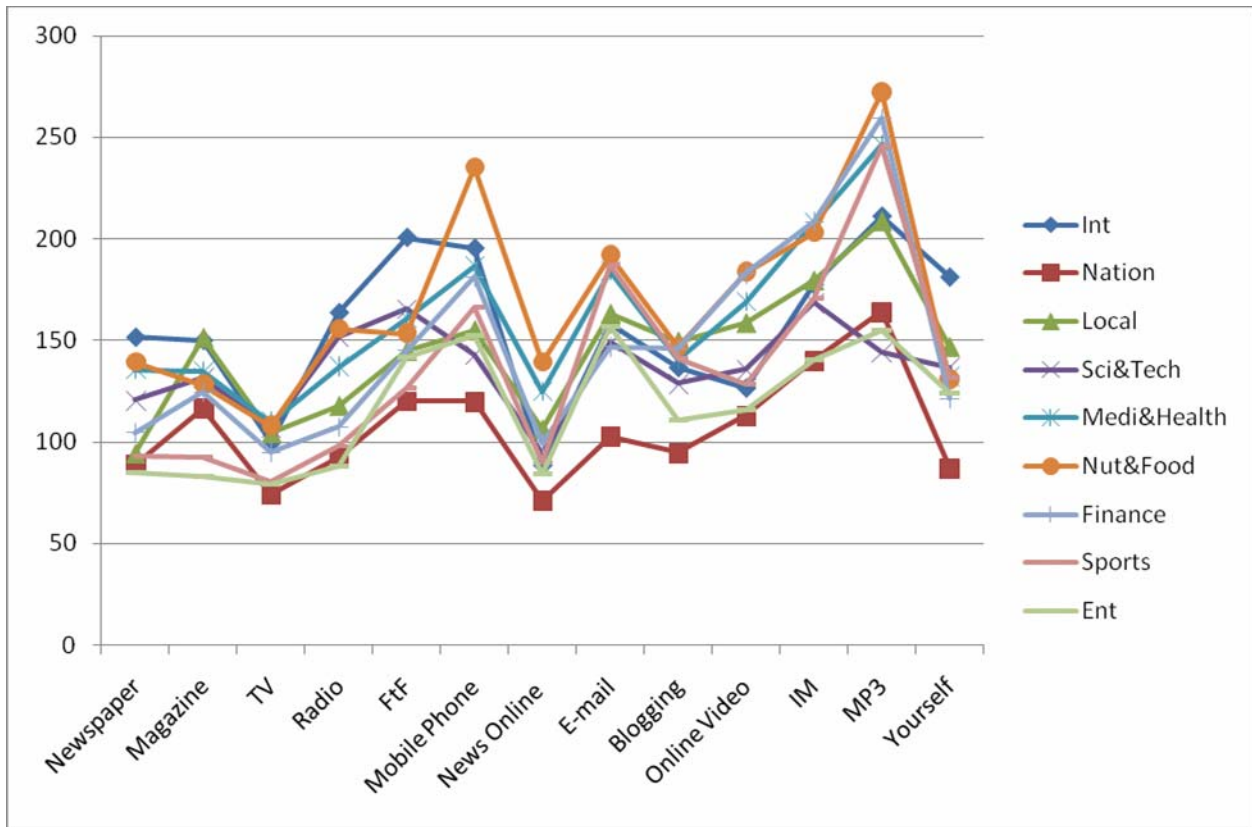Distances of Information Topics from Media Use by All Participants

Figure 2

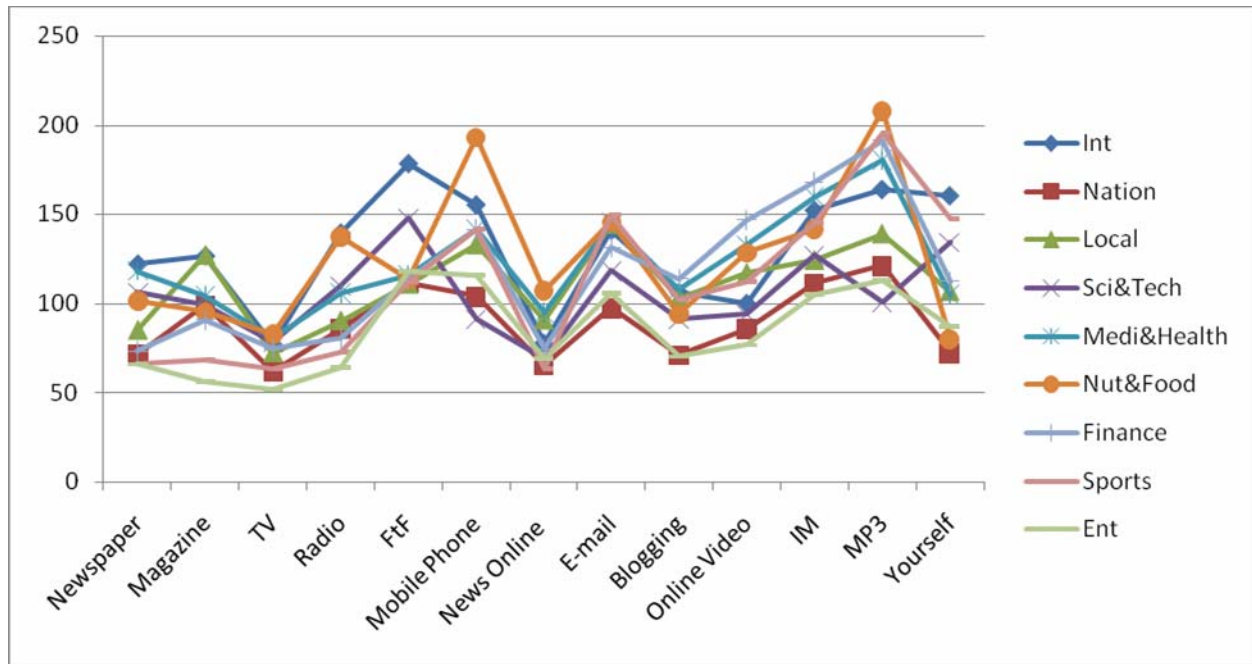Distances of Information Topics from Media Use by Females

Figure 3

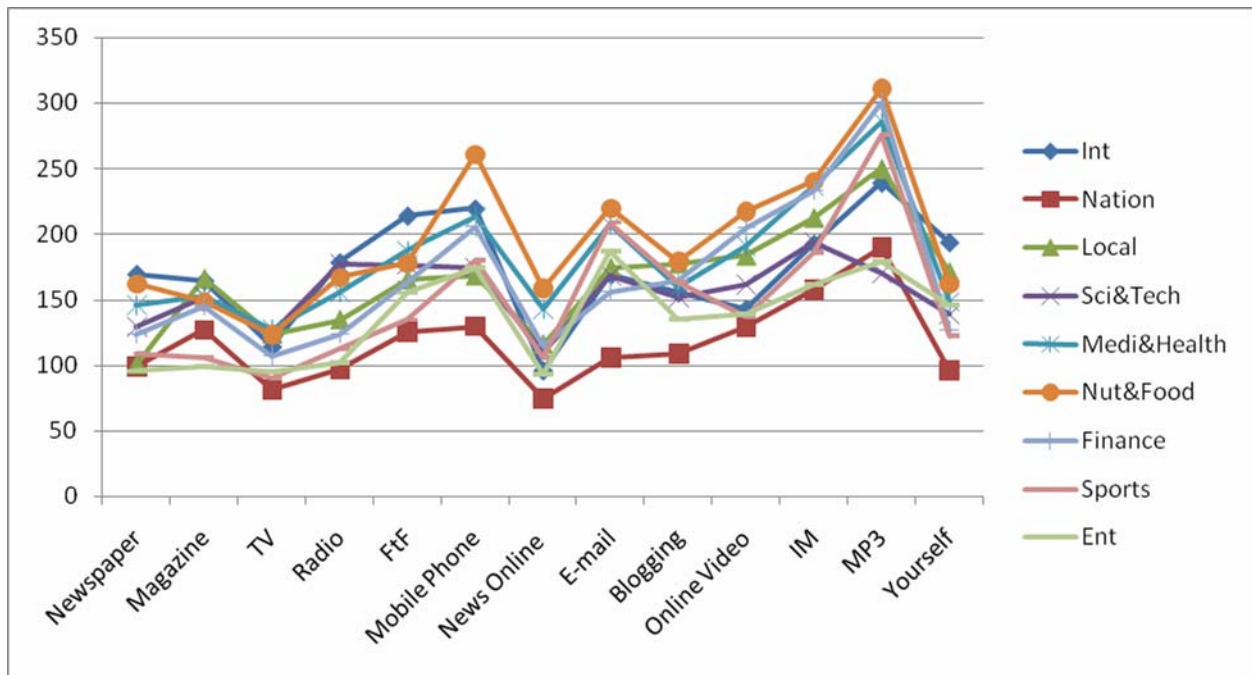Distances of Information Topics from Media Use by Males

Figure 4

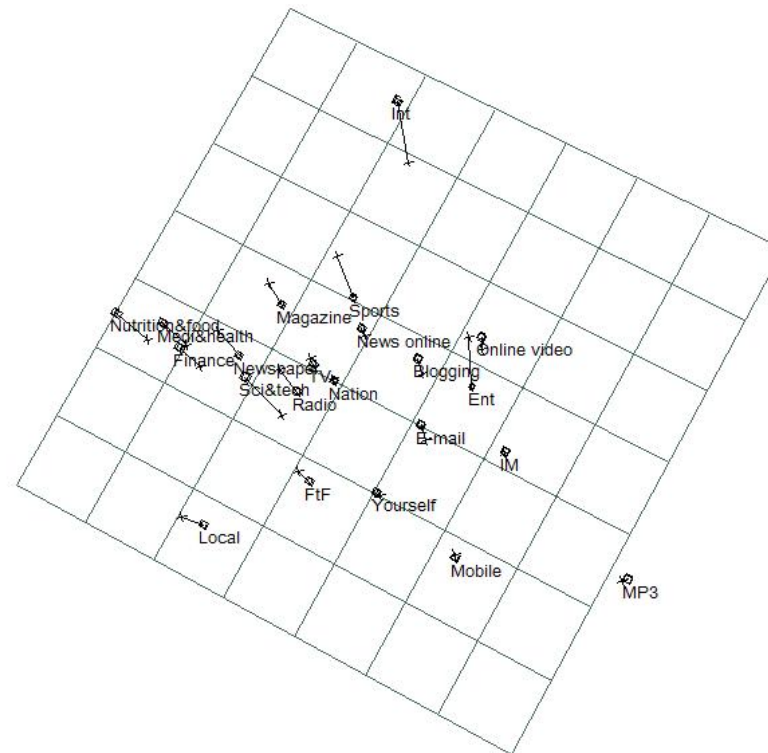Cognitive Structure of Relative Distances between Self, Information Topics and Media by All Participants

Figure 5

Cognitive Structure of Relative Distances between Self, Information Topics and Media by Females
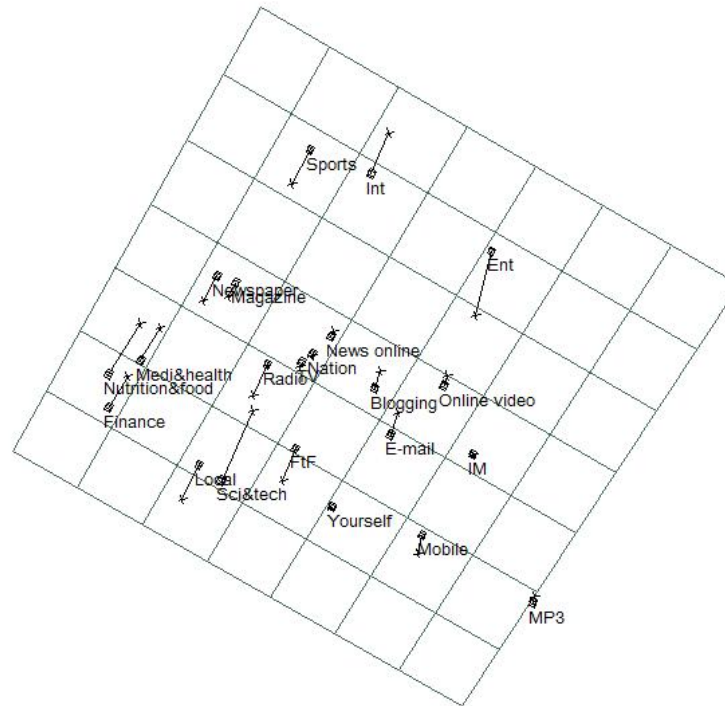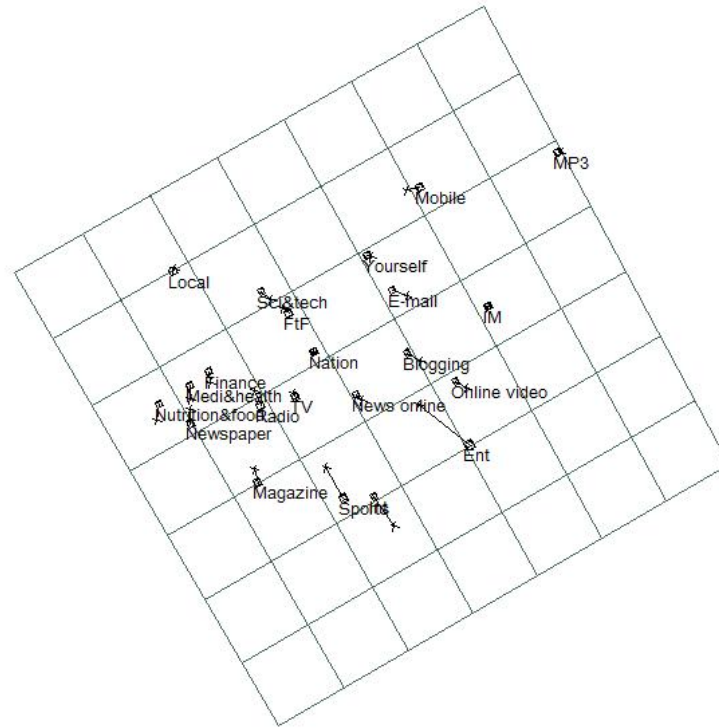
Figure 6

Cognitive Structure of Relative Distances between Self, Information Topics and Media by Males

Note

1. From an interactionist perspective, the social structure of attitudes, beliefs, and values as a whole is considered as the framework of collective consciousness that reflects "group properties," not "an aggregate of individual intrinsic cognitive and psychological attributes" (Woelfel, et al., 1988, p. 2). Independent individuals in the society or community can acquire the same characteristics as group properties, whether achieving social cohesiveness or obligating social norms. Despite varying degrees of variation of individual social consciousness and action, it is important to keep in mind that individual consciousness is not the same aspect of collective consciousness as group mind (Woelfel, et al., 1988).

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