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**Conference Paper**

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22nd Biennial Conference of the International Telecommunications Society (ITS): "Beyond the Boundaries: Challenges for Business, Policy and Society", Seoul, Korea, 24th-27th June, 2018

**Provided in Cooperation with:**

International Telecommunications Society (ITS)

*Suggested Citation:* Lee, So-Eun; Kim, Seongcheol (2018) : New wine in old bottles? An analysis of communication research trends focusing on media, 22nd Biennial Conference of the International Telecommunications Society (ITS): "Beyond the Boundaries: Challenges for Business, Policy and Society", Seoul, Korea, 24th-27th June, 2018, International Telecommunications Society (ITS), Calgary

This Version is available at:

<https://hdl.handle.net/10419/190379>

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# New wine in old bottles? An analysis of communication research trends focusing on media

So-Eun Lee<sup>1</sup>, Seongcheol Kim<sup>2</sup>

## 1. Introduction

Media technologies have evolved over time, competing with one another. Media are socially important agents rather than mere technological objects as they penetrate deeply into people's lives. For example, TV has been leading the mass communication age for a long time since the emergence of electronic media. Computers are multimedia devices that have led to the era of convergence by flattening different content modalities. The proliferation of mobile media brings the revolutionary changes, hastening the advent of the personal communication age. And most recently, new technologies such as wearable devices are creating unprecedented forms of communication.

The transition of the major media devices leads to the fundamental sociocultural changes, which can be called 'paradigm shifts'. Then, has the paradigm of media research changed to reflect this technological and social transition? Has there been progression of research theories or methodologies that corresponds to the conversion of major media? If so, in what context? If not, why? This study aims to answer these questions through a review of more than 30 years of communication research published in the *Journal of Broadcasting & Electronic Media* (JOBEM).

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## **2. Theoretical Background and Research Questions**

### **2.1. Medium specificity**

This article focuses on the media devices, TV, PC and mobile media, in particular, in analyzing the research trends. This approach is based on the theory of ‘medium specificity’ (Greenberg, 1961; Schwartz & Przyblyski, 2004).

Medium specificity is a principle widely used in aesthetics and art criticism. The concept was popularized by the art critic Clement Greenberg in the era of modernism. According to him, medium specificity holds that “the unique and proper area of competence” for a form of art corresponds with the ability of an artist to manipulate those features that are “unique to the nature” of a particular medium (Greenberg, 1961). For example, in painting, literal flatness and abstraction are emphasized rather than illusionism and figuration (Schwartz & Przyblyski, 2004). This is because of medium specificity, illustrating that painting has its own materiality and the formal attributes that are different from other media.

Greenberg’s explanation can be traced back in time to resonate with Gotthold Lessing in 1766. In his essay *Laocoön*, he refutes Horace’s famous claim “ut pictura poesis” (as is painting, so is poetry). Lessing argues that painting and poetry are inherently different, as the former exists in space while the latter unfolds in time. He insists that “an artwork, in order to be successful, needs to adhere to the specific stylistic properties of its own medium” (The Chicago School of Media Theory, n.d.).

What Greenberg and Lessing share is that medium specificity is based on the unique materiality of every medium. The concept emphasizes that media has its distinct materiality and the artwork is constituted by the characteristic qualities of the raw material. This would probably include the techniques used to manipulate the materials. In this regard, linking the dictionary definition of the two words ‘specificity’ and ‘medium’, the Chicago School of Media

Theory defines the term as “the quality of being specific, in operation and effect, to the character of the raw material being used as a mode of artistic expression” (The Chicago School of Media Theory, n.d.).

By the word ‘operation’, we can see the term holds that artistic practices are also based on the materiality of media. For this reason, medium specificity can be used as an aesthetic judgement tool for artwork analysis. Katherine Hayles, for example, speaks of “media specific analysis” (Hayles, 2001). As discussed by critic Marshall Soules, medium specificity and media specific analysis are playing an important role in the emergence of new media art forms, such as Internet art (Soules, 2002). Medium specificity suggests that a work of art can be said to be successful if it fulfills the promise contained in the medium used to bring the artwork into existence. Much debate can remain, of course, as to what a given medium best lends itself to.

If the term is a tool for aesthetic judgement, can it be the basis for the academic evaluation of communication studies, too? If we recall the famous idiom of Marshall McLuhan, “the medium is the message” (McLuhan, 1964), we can see that the medium specificity is applicable not only to the art criticism but also to the general phenomena related to media. McLuhan emphasizes that it is a medium itself, not the content it carries, that changes the way individuals interact with one another and affects the society accordingly. His study is focused on the nature of the medium itself. Following his own expression, it shapes and controls “the scale and form of human association and action” (McLuhan, 1964, p. 9). For example, our perception of space differs depending on whether we move on the bus or on foot. Buses and feet are media that are extensions of man, which in itself affect us as ‘messages’. McLuhan hypothesized that understanding this property of medium-specificity would allow societies to control the effects of new technologies, harnessing potentially dangerous inventions by predicting their influence. People tend to focus on the obvious, which is the content, to provide us valuable information, but in the process, we largely miss the structural changes in our affairs that are introduced subtly, or over long periods of time (Federman, 2004). As society's values, norms, and ways of doing things change because of the technology, it is then we realize the social implications of the medium.

McLuhan was criticized by numerous scholars who emphasize the socio-cultural context of media use, as most notably illustrated in the works of Raymond Williams. Unlike the general

understanding of Williams, however, his work also tells us that the media constitute its own unique character in terms of sociocultural conventions such as institutions, industries and practices as well as materiality. Poetry and painting have different physical properties, but they also constitute different industries, economies, and audiences. In this regard, we can understand that medium specificity has been examined through media studies in various ways. In other words, medium specificity is continued through its subversion into “different specificity.” (Krauss, 2000).

After all, the important thing is that there are ways to make a medium like the medium, either in essence or as a social convention. Movie should be like movie, and television is supposed to be as of television. It is because medium specificity is acting on each medium.

## **2.2. Medium ambiguity?**

If each medium has its own specificity, media research would be a way of understanding this particularity and elaborating it with empirical data or theoretical concepts. The adequacy of theories and methods to deal with each medium, and the expertise of the researchers, are required in this process.

In the past, it was relatively easy to approach each medium within its own framework. We could identify areas of television studies, uncomplicatedly imagining the technology, network, platform, contents and audience of television to some extent. Today, however, the question of ‘what are media?’ is being raised again, a little exaggeratedly speaking, ‘from scratch’. The definition of media faces a fundamental challenge nowadays. For example, in the past, a media device was associated with a single platform and homogeneous content. Television viewing meant watching live broadcast programs through channel with home receivers. In contrast, it is difficult to know what television viewing means today. Television viewing’s are defined in a variety of ways, depending on whether they focus on devices, platforms, or content. Whether or not to include clip videos on YouTube into a category of television viewing is a hot potato in academic, industrial and political debate. The famous concept of Henry Jenkins (2006), convergence, or the CPND value chain in media industry reflects the blurring boundaries of

media as well as the hybridization of media devices. The media is living and moving in tandem. It is becoming increasingly difficult to talk about medium specificity in terms of industry, use, and institution as well as its material attribute.

Here rises a question of whether communication researchers have developed the uniqueness of research by media. Or, a question of whether this kind of effort is possible or even, necessary. It would be meaningful to deliberate on whether or not we have put different kinds of wines in the appropriate bottles in the field of communication by asking who has studied what, and how, dealing with media over time.

To approach the issue, we will regard media as an integrated form of device, platform and content in this paper. The coding scheme will be described in detail in methodology, but we will analyze whether papers in JOBEM are dealing with device, platform or content in regard to media, and judge how the media is represented and understood based on the results of this coding. It is a kind of open, exploratory procedure to understand the trends of media research from the bottom up. The research questions raised from this perspective are as follows. The perspectives of RQ2 include research discipline, methodology, analytical focus, and theory.

RQ1. On what media have the research articles in JOBEM focused? How have the trends changed?

RQ2. How have the research perspectives of each media changed?

### **3. Method**

Original research articles published in the *Journal of Broadcasting & Electronic Media* between 1985 and 2017 were included in the analysis.

We chose the journal for several reasons. First, it is one of the top international journals in the field of communication with a long history. Since its foundation in 1957, the journal has

been leading communication scholarship. Second, starting from a journal specialized for television-broadcasting, the most solid and mainstream media, the journal has extended the area of interest to various electronic media, which corresponds to the aim of this paper to identify research trends focusing on media. Unlike other journals which have brought communication to the foreground, this journal originally focused more on the specific areas of broadcasting. However, changing its name from *Journal of Broadcasting* to *Journal of Broadcasting & Electronic media* in 1985, it tried to enhance understanding of communication and the electronic media in general. As the first editor of JOBEM stated in the editor's note, the journal started to recognize a "more realistic and dynamic communication environment" to embrace not only the change of broadcasting but also the emergence of various electronic media (Rubin, 1985). With 'electronic media' on the front, they tried to pay more attention to various media such as DBS, cable, telephone and video cassettes (McCain, 1984). Such efforts are to "encompass the older and newer communication technologies" (Rubin, 1985, p. 1). It is expected that the efforts have been also made in the field of new media such as telecommunication or the Internet. Third, the journal covers numerous aspects of communication. After its name change, journal topics started to include "the role and influence of the electronic media for individuals and society; history and criticism of the electronic media; aesthetics and production values; economic, policy, and programming issues; international communication; social responsibility concerns" (Rubin, 1985, p. 2). As a general forum for communication scholarship, rather than a specialized journal only for broadcasting, the journal is suitable for the review of research trends.

The period from 1985 to 2017 was selected because the name of the journal was changed in 1985. More importantly, in addition, the last 33 years of time is worth a visit as various media appeared and the competition between them became full-fledged during this period. In the past, mass media, especially television, dominated the media environment. Communication research also tended to focus on television accordingly. Since the 1990s, however, the media environment has changed drastically, representatively illustrated in the diversification of broadcasting platforms, emergence of diverse devices and increasing use of the Internet. It is necessary to confirm whether the change of journal title reflected the change properly.

JOBEM published 132 issues in total over the 33 years of period. Among papers in the 132 issues, reports, invited essays or book reviews were excluded. As a result, a total 1,027 original

articles were included in the final data.

From the selected papers, data such as year of publication, author affiliation, abstracts, methodology, theory, analytical focus and media / platform / content covered in papers are collected. Data coding was performed by two independent coders who majored in communication. In order to increase the reliability of the coding, we delivered the sample coding to the coders and let them understand the categories. After that, they were asked to code randomly extracted papers so that the coders were able to discuss the differences in the coding. In this way, we trained the coders until the reliability between them reached 90%. The details of the coding scheme will be presented along with the results.

## **4. Results**

### **4.1. Basic trends: authors and keywords**

#### *4.1.1. Authors*

##### *4.1.1.1. Number, country and affiliation*

From 1985 to 2017, 1,027 original research articles were published in JOBEM. Of these, nearly 40% were written by a single author. Author profiles showed that the majority of first authors belonged to the institutions in the US (84.3%), followed by the Netherlands (2.4%), Israel (1.8%), UK (1.5%), Germany (1.5%) and South Korea (1.4%). Very little geographical variability is found, as in the study of *Journal of Communication* (Walter, Cody & Ball-Rokeach, 2018), indicating that communication research has been concentrated mostly in the US. The homogeneity of authorship also appeared in terms of major. About 90% of the first authors were media and communication specialists at university.



**Table 1. Distribution of articles by number of authors**

	Number of Authors										Total
	1	2	3	4	5	6	7	8	12	14	
N	404	374	161	55	16	11	3	1	1	1	1027
%	39.3	36.4	15.7	5.4	1.6	1.1	0.3	0.1	0.1	0.1	100.0

**Table 2. Distribution of articles by first author's country of affiliation**

	N	%		N	%		N	%
USA	866	84.3	Singapore	4	0.4	Japan	2	0.2
Netherlands	25	2.4	China	4	0.4	Switzerland	2	0.2
Israel	18	1.8	Sweden	4	0.4	New Zealand	1	0.1
UK	15	1.5	Austria	3	0.3	Pakistan	1	0.1
Germany	15	1.5	Hongkong	3	0.3	Chile	1	0.1
South Korea	14	1.4	Turkey	2	0.2	Greece	1	0.1
Australia	8	0.8	Norway	2	0.2	Mexico	1	0.1
Denmark	6	0.6	India	2	0.2	South Africa	1	0.1
Taiwan	5	0.5	Finland	2	0.2	Malaysia	1	0.1
Belgium	5	0.5	Saudi-Arabia	2	0.2	Slovenia	1	0.1
Canada	5	0.5	Spain	2	0.2	Unclear	3	0.3
Total							1027	100.0

**Table 3. Distribution of articles by first author's affiliation**

Category	N	%	
University	Media & Communication	922	89.8
	Other social sciences	46	4.5
	Humanities	2	.2
	Business & economics	5	.5
	Others	15	1.5
Research institute	21	2.0	
Company	9	.9	
Others	4	.4	
Unclear	3	.3	
Total	1027	100.0	

#### 4.1.1.2. Diversity

Diversity of scholars was evaluated to see whether this homogeneity of country and affiliation were alleviated in terms of multi-author collaboration. As time went on, the number of papers with a single author decreased, and collaboration between two or more authors increased. Even when two or more authors work together, however, the homogeneity remained. Approximately half of 1,027 papers were written by authors of the same country or the same category of affiliation. The homogeneity of the country was slightly higher than that of affiliation. Over time, in the meanwhile, both diversity of country and affiliation increased to reach about 15%. If we presume that papers written by several authors with various affiliations would have high potential to go beyond simple collaboration, multidisciplinary teamwork was relatively infrequent in papers published in JOBEM.

**Table 4. Trends associated with diversity of author affiliation**

			One author		Two or more authors				Total
					Diversity of country		Diversity of affiliation		
			Same	Varied	Same	Varied			
Period	1985~1990	N	78	73	2	59	16	153	
		%	51.0	47.7	1.3	38.6	10.5	100.0	
	1991~1995	N	65	70	4	63	11	139	
		%	46.8	50.4	2.9	45.3	7.9	100.0	
	1996~2000	N	60	100	11	92	19	171	
		%	35.1	58.5	6.4	53.8	11.1	100.0	
	2001~2005	N	67	77	7	74	10	151	
		%	44.4	51.0	4.6	49.0	6.6	100.0	
	2006~2010	N	60	104	10	93	21	174	
		%	34.5	59.8	5.7	53.4	12.1	100.0	
	2011~2017	N	74	129	36	124	41	239	
		%	31.0	54.0	15.1	51.9	17.2	100.0	
	Total	N	404	553	70	505	118	1027	
		%	39.3	53.8	6.8	49.2	11.5	100.0	

#### 4.1.2. Keywords

Since JOBEM does not provide keywords, we extracted words from abstracts by using morpheme extractor to reconstruct the keywords data. After pronouns, prepositions and words associated with the research description (i.e., ‘analysis’, ‘results’, ‘paper’, ‘indicate’ or ‘suggest’) were excluded, meaningful words covering nouns and adjectives were analyzed by the 6 time periods. Table 5 shows the trends associated with top 25 keywords appeared in the abstracts of 1,027 papers.

The words ‘television’, ‘news’, and ‘media’ were the most commonly found in all periods, with some significant differences over time being found. Before 1990, ‘radio’ as well as ‘television’ ranked in the top, indicating that the ‘broadcasting’ of this period consisted of a television of radio broadcast. The words related to specific categories of broadcasting such as ‘network’, ‘cable’, and ‘advertising’ are also noticeable. Besides the news, soap opera programs seemed to be the main target of analysis. ‘Children’, ‘family’ and ‘policy’ were included in the main keywords, suggesting that related studies had been actively conducted.

From 1991 to 1995, the word ‘programming’ was introduced instead of specific programs. The rise of ‘cable’ is remarkable, too. It is also noteworthy that contents that flourished under cable channels such as ‘music’ and ‘video’ became the main keywords. While the word ‘viewing’ disappeared, viewers appeared instead, suggesting that audience studies focusing on (television) ‘viewers’ began in earnest. This seems to reflect the multi-channel era of television in the 1990s.

Similar trends were found in the results of the period from 1995 to 2000. While the main keywords were similar in general, it is noticeable that the ranking of ‘radio’ had fallen dramatically. Along with words associated with media effects such as ‘positive’, ‘negative’ or ‘violence’ had newly emerged, fresh words related to the research itself such as ‘theory’ and ‘survey’ also appeared. This implies the concretization of television research, also supported with the top rank of the words ‘use’ and ‘ratings’. As many reviews of broadcasting studies were made in the late 1990s, the 1990s is considered as the heyday of television research. Keyword trends between 1995 and 2000 also corresponds with the survey-centered research trends on users based on media effects theories that review studies have described (Asamen, 1998; Jacobson, 1995; Shanahan & Morgan, 1999). From the word ‘United States’, we can presume that the majority of studies were carried out in the US or with US data.

The television-centric media environment was weakened after the new millennium. ‘television’ and ‘news’ are still on the top, but the ‘internet’, ‘online’, and the ‘web’ emerged as new keywords. It is also interesting that ‘technology’ was found, though outside the 25 rankings. Research seemed to be more advanced both conceptually and methodologically. The newly appeared word ‘perceptions’ suggests that psychological studies were done at this time. New words to conceptualize viewing behavior, such as ‘exposure’, also emerged. ‘Programs’ that would have been the main analytical focus in the previous period dropped in rank.

In the late 2000s, ‘news’ ranked first instead of ‘television’. It is interpreted that the focus of research in this period was on the news content rather than television programs. Reflecting the multimedia environment, this period seemed to refer to media as ‘social’ ‘media’ according to the rankings. The words describing viewing and use were also diversified as shown in the words ‘exposure’, ‘attention’ and ‘perception’.

After 2010, ‘social’ ‘media’ has climbed to the top of the list, and ‘television’ have fallen dramatically. Specific service names such as ‘Twitter’ and ‘Facebook’ also supported the change in research trends. The focal interest of research in dealing with these services appeared to be ‘news’ or ‘political’ ‘effects’ in the ‘public’ context. It is also remarkable that ‘game’ has appeared though it is out of the 25th place.

**Table 5. Trends associated with top 25 keywords**

Order	Period 1 1985~1990	Period 2 1991~1995	Period 3 1996~2000	Period 4 2001~2005	Period 5 2006~2010	Period 6 2011~2017
1	television	television	television	television	<b>news</b>	<b>media</b>
2	media	<b>news</b>	news	news	television	<b>social</b>
3	<b>program(s)</b>	<b>program(s)</b>	<b>program(s)</b>	media	media	news
4	viewing	media	media	content	<b>content</b>	political
5	news	<b>programming</b>	viewing	<b>Internet</b>	<b>use</b>	<b>online</b>
6	<b>children</b>	political	<b>TV</b>	<b>effects</b>	<b>programs</b>	use
7	use	<b>content</b>	<b>use</b>	<b>online</b>	viewing	<b>television</b>
8	<b>radio</b>	time	content	public	<b>social</b>	content
9	effects	radio	<b>United States</b>	viewers	exposure	<b>public</b>
10	policy	<b>cable</b>	children	<b>Web</b>	reality	<b>Twitter</b>

11	network	stories	viewers	<b>exposure</b>	information	viewing
12	audience	communication	political	children	radio	information
13	<b>information</b>	children	information	information	viewers	survey
14	<b>soap opera</b>	public	public	mediation	time	effects
15	stories	<b>audience</b>	time	time	network	TV
16	content	viewers	<b>cable</b>	violence	effects	users
17	<b>broadcasting</b>	<b>family</b>	social	political	audience	perceived
18	political	use	audience	use	political	relationship
19	communication	<b>music</b>	radio	<b>programs</b>	TV	influence
20	cable	stations	<b>theory</b>	stories	<b>Internet</b>	participation
21	commercials	information	effects	viewing	coverage	audience
22	perceptions	story	<b>ratings</b>	role	women	parents
23	social	broadcast	women	data	perceptions	exposure
24	local	influence	role	<b>perceptions</b>	local	children
25	motives	<b>video</b>	<b>behavior</b>	behavior	programming	<b>Facebook</b>

## 4.2. Research trends based on media

### 4.2.1. Media covered in the articles

As explained earlier, media are not a single technology, material, or institution. For this reason, we have taken a strategy to code ‘media’ duplicate in three layers to grasp research trends. The categories are devices, platforms and contents. For example, if the television soap opera viewers are studied, the paper is coded as ‘television’, ‘broadcasting’, ‘soap opera’ in the three categories. When the research focus is on the live news on DMB, ‘mobile medium’, ‘broadcasting’, ‘news’ are the categories of this study. If there is no specific mention of content or platform, such as mobile media usage motivation research, only ‘mobile medium’ at the level of devices is coded.

Despite the layered approach, the results show that all of the articles categorized as television at the level of devices were coded broadcasting at the level of platforms. There have been no studies on other platforms such as OTT or the Internet associated with television studies. Also, there were few studies dealing with PCs or mobile media as devices.

When dealing with non-television media, the majority did not specify devices, but tended to deal with Twitter, Facebook, Bulletin board, web sites, and online news. These are interpreted as the ‘Internet’ research rather than studies focusing on the media devices. Although the Internet is not regarded as a media device in general, it is prominent that the Internet has been treated like devices of PCs or mobile media. Accordingly, we reinterpreted the Internet as a category at the level of devices to express the distribution of articles more efficiently. The results based on the new ‘media’ category is shown in Table 6.

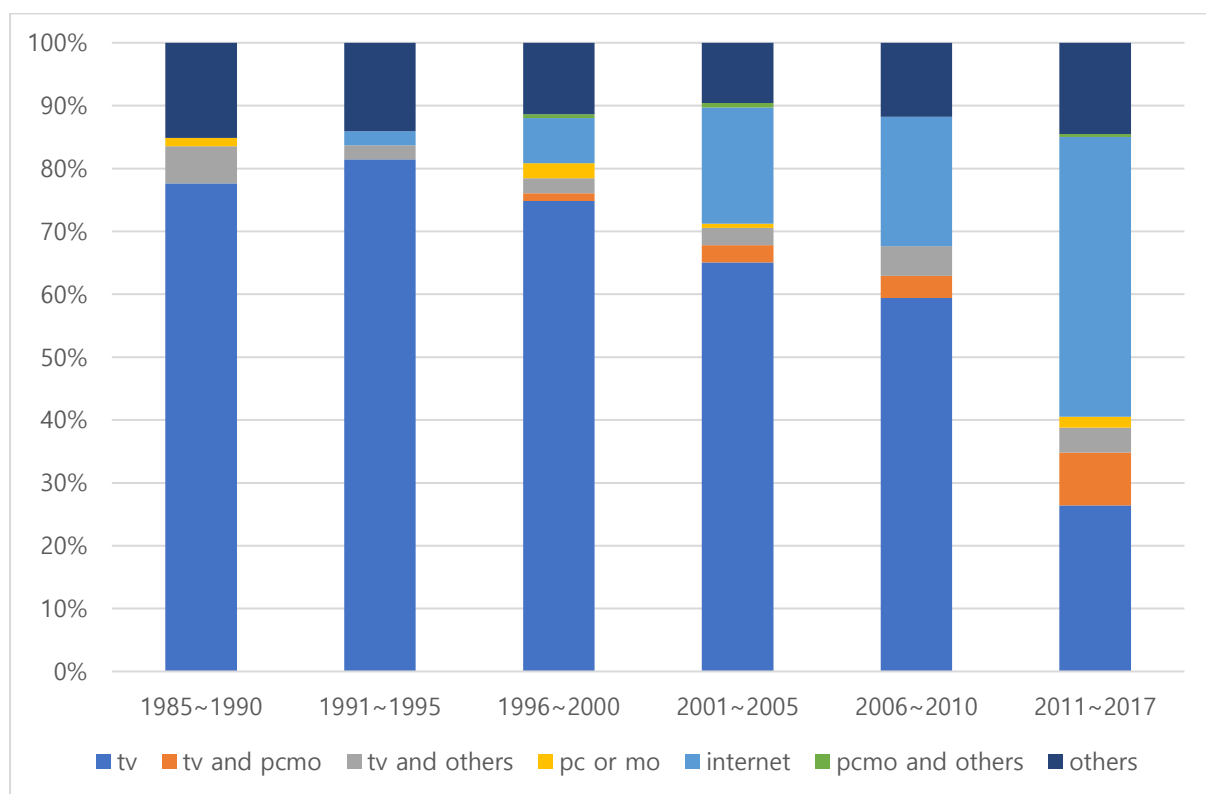
Other than television, PCs or mobiles, print media such as newspapers or magazines were mainly studied, followed by video media such as VCRs. ‘Others’ category of ‘other media’ includes pager or interactive media. There was no case where the latest technology such as wearable devices or VR/AR were dealt with as a research subject.

The majority of research was about television alone (59.3%). With inclusion of the articles which dealt with television in comparison with other media, television centrality of the research in JOBEM becomes more prominent. Not surprisingly, the proportion of research that dealt with television alone has decreased while the Internet has increased over time, as Figure 1 shows. It is noteworthy that the research on PCs or mobile media as devices has not increased significantly over time. When a PC or mobile medium is specified, it is limited to the analysis of its content, especially in comparison with that of television. A study of a website bulletin board related to a television program or a comparison between TV news and online news are examples. Data on ‘online’ content were normally extracted from either PCs or mobile media in these cases.

**Table 6. Distribution of articles based on media**

Category		N	%
TV	TV	609	59.3
TV and (PCs or Mobile media)	TV with (PCs or mobile media)	31	3.0
TV and other media	TV with print media	9	0.9
	TV with audio media	9	0.9
	TV with video media	3	0.3
	TV with other media	16	1.6

PCs or Mobile media	PCs	8	0.8
	Mobile media	3	0.3
Internet	Internet through PCs or mobile media	178	17.3
Internet and other media	Internet and other media	3	0.3
Other media	Print media	4	0.4
	Audio media	55	5.4
	Video media	25	2.4
	Telephone	4	0.4
	Film or movie	9	0.9
	Game	8	0.8
	Others	23	2.2
Not specified		30	2.9
Total		1027	100.0



**Figure 1. Trends associated with media covered in the articles**

#### 4.2.2. Media and research discipline

We examined how research disciplines are distributed by the media categories which was reconstructed from the analysis mentioned above. Predictably, communication research, which includes ‘broadcasting’, ‘audience studies’, ‘children, adolescents and media’ along with other ‘XX communication’ (i.e., political communication, interpersonal communication, health communication, etc.), was the most common in all media categories (60.8%). The interest in new media and technology domain was increased along with the studies about PCs or mobile media as devices. However, if we look at the category or the Internet, the dominance of communication research discipline appears again. It implies that the Internet tended to be understood as a system or an institution like the way television had been interpreted in studies. The attributes of the Internet as technology were reflected little. Other media have been studied mainly in the field of industry, business and economics. This seems to be the result that papers related to the movie or publishing industry led to.

**Table 7. Distribution of articles by media and research discipline**

		Research discipline									Total
		Communication	New media and technology	Journalism	Cultural studies	Law and policy	Industry, business and economics	Philosophy, theory and critique	Others		
Media	TV	N	387	13	27	43	37	93	1	8	609
		%	63.5	2.1	4.4	7.1	6.1	15.3	0.2	1.3	100.0
	TV and (PCs or mobiles)	N	14	13	0	3	0	1	0	0	31
		%	45.2	41.9	0.0	9.7	0.0	3.2	0.0	0.0	100.0
	TV and other media	N	28	1	2	1	0	3	0	2	37
		%	75.7	2.7	5.4	2.7	0.0	8.1	0.0	5.4	100.0
	PCs or Mobiles	N	8	2	0	0	0	0	0	1	11
		%	72.7	18.2	0.0	0.0	0.0	0.0	0.0	9.1	100.0
	Internet	N	108	28	4	12	2	20	0	4	178
		%	60.7	15.7	2.2	6.7	1.1	11.2	0.0	2.2	100.0
	Internet and other media	N	1	0	0	2	0	0	0	0	3
		%	33.3	0.0	0.0	66.7	0.0	0.0	0.0	0.0	100.0



	Other media	N	60	8	3	7	11	25	2	12	128
		%	46.9	6.3	2.3	5.5	8.6	19.5	1.6	9.4	100.0
Total		N	606	65	36	68	50	142	3	27	997
		%	60.8	6.5	3.6	6.8	5.0	14.2	0.3	2.7	100.0

\* Note: 30 papers were excluded as they do not specify media in the article.

#### 4.2.3. Media and analytical focus

The tendency of research that dealt with PCs or mobile media separately from the Internet was also revealed in terms of analytical focus. Overall, audience was the focal point of all categories of media studies in JOBEM. In the case of television, research on text, content or messages followed the next, which was led by representation studies. When approaching PCs or mobile media, interest in device or platform was relatively high. In contrast, the focus on audience became salient again in studies on the Internet. This implies that the framework for studying the Internet is close to that of television.

**Table 8. Distribution of articles by media and analytical focus**

			Analytical focus								Total
			Device or platform	Text, content or message	Audience	Institutional environment, system or policy	Industry, business or economy	Culture	History	Theory	
Media	TV	N	19	142	285	40	83	19	17	4	609
		%	3.1	23.3	46.8	6.6	13.6	3.1	2.8	0.7	100.0
	TV and (PCs or mobiles)	N	7	5	16	0	2	0	0	1	31
		%	22.6	16.1	51.6	0.0	6.5	0.0	0.0	3.2	100.0
	TV and other media	N	6	3	24	0	3	1	0	0	37
		%	16.2	8.1	64.9	0.0	8.1	2.7	0.0	0.0	100.0
	PCs or mobiles	N	4	0	7	0	0	0	0	0	11
		%	36.4	0.0	63.6	0.0	0.0	0.0	0.0	0.0	100.0
	Internet	N	24	15	112	4	18	4	0	1	178
		%	13.5	8.4	62.9	2.2	10.1	2.2	0.0	0.6	100.0
	Internet and	N	2	0	0	0	0	1	0	0	3
		%									

	other media	%	66.7	0.0	0.0	0.0	0.0	33.3	0.0	0.0	100.0
	Other media	N	9	13	57	14	24	3	5	3	128
		%	7.0	10.2	44.5	10.9	18.8	2.3	3.9	2.3	100.0
Total		N	71	178	501	58	130	28	22	9	997
		%	7.1	17.9	50.3	5.8	13.0	2.8	2.2	0.9	100.0

\* Note: 30 papers were excluded as they do not specify media in the article.

#### 4.2.4. *Media and methodology*

Survey was the most widely used methodology in all media categories, followed by content analysis. Content analysis was mostly used when dealing with television media. This was also confirmed in the previous results that the analytical focus of the television research was on the message and content as well as audience. Other media, apart from television, PCs, mobiles or the Internet, were mainly approached in illustrative, discursive or descriptive ways, which can be associated with the result above that industry or policy issues were mainly handled in the discipline.

**Table 9. Distribution of articles by media and methodology**

			Methodology											Total
			Survey	Experiment	Content analysis	Case study	Interview	Field	Theoretical/ conceptual	Illustrative/ discursive/ descriptive	Social network analysis	Mixed methodology	Others	
Media	TV	N	168	73	188	16	20	9	21	64	2	44	4	609
		%	27.6	12.0	30.9	2.6	3.3	1.5	3.4	10.5	0.3	7.2	0.7	100.0
	TV and (PC or MO)	N	18	2	3	0	0	1	0	0	0	7	0	31
		%	58.1	6.5	9.7	0.0	0.0	3.2	0.0	0.0	0.0	22.6	0.0	100.0
	TV and other media	N	16	5	4	0	2	0	0	3	1	6	0	37
		%	43.2	13.5	10.8	0.0	5.4	0.0	0.0	8.1	2.7	16.2	0.0	100.0
	PC or MO	N	7	0	1	0	1	0	1	0	0	1	0	11
		%	63.6	0.0	9.1	0.0	9.1	0.0	9.1	0.0	0.0	9.1	0.0	100.0
	Internet	N	60	9	58	5	11	4	2	6	3	20	0	178
		%	33.7	5.1	32.6	2.8	6.2	2.2	1.1	3.4	1.7	11.2	0.0	100.0
	Internet and other media	N	0	1	1	0	0	1	0	0	0	0	0	3
		%	0.0	33.3	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	100.0
	Other media	N	25	21	26	7	3	3	3	28	0	11	1	128
		%	19.5	16.4	20.3	5.5	2.3	2.3	2.3	21.9	0.0	8.6	0.8	100.0
Total	N		294	111	281	28	37	18	27	101	6	89	5	997
	%		29.5	11.1	28.2	2.8	3.7	1.8	2.7	10.1	0.6	8.9	0.5	100.0

\* Note: 30 papers were excluded as they do not specify media in the article.

#### 4.2.5. Media and theory

Table 10 shows the order of the most popular theories in the study of JOBEM. The theory of uses and gratifications was top ranked in almost all media categories. Given that the theoretical extensiveness of uses and gratifications is not so varied, the result can be interpreted as the theoretical homogeneity of media research. The theory of cultivation and audience flow appeared only in the case of television studies. Discussion remains as to whether this is due to the specificity of the television itself or the inattentive use of those theories. Agenda setting and theories related to cognitive processing were found in the studies that compared television to PCs, mobiles, or other media. It seems that interest in the different sources of news and information acquisition has addressed this result. It is noticeable that relatively diverse theories were used in the Internet research. Whether this reflects the multimedia nature of the Internet or if is based on the theoretical diversity of the latest research remains to be deliberated.

**Table 10. Top ten popular theoretical frameworks/concepts in JOBEM by media**

Order	TV	TV and (PCs or MO)	TV and other media	PCs or MO	Internet	Internet and other media	Other media
1	Cultivation	Uses and gratifications	Uses and gratifications	Uses and gratifications	Uses and gratifications	Uses and gratifications	Social cognitive theory
2	Uses and gratifications	Agenda setting	Agenda setting		Social cognitive theory		Uses and gratifications
3	Audience flow	Social cognitive theory	Social cognitive theory		Framing		Framing
4	Social cognitive theory		Spiral of science		Agenda setting		Theory of planned behavior
5	Agenda setting		Theory of symbols		Audience flow		Theory of social identity
6	Balance theory				Theory of symbols		

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7	Social construction of reality	Technological acceptance model
8	Technological acceptance model	Gatekeeping
9	Theory of social identity	Theory of planned behavior
10		Third-person effect

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## 5. Discussion and Conclusion

According to our analysis, the research trends of the last 33 years of JOBEM can be summarized by the homogeneity in terms of authors, disciplines, media, methodologies, and theories. The analysis of keywords shows that research on electronic media other than television and broadcasting seems to be in full swing after 2000, in contrast with its title change in 1985. Despite the fact that the media have diversified since 1985, most studies have focused on television. Research on various media seems to be made only after 2000. In this case, too, it tended to be limited to some services. Academic approaches are inevitably subject to phenomenal changes, but the gap between media environment and research trends is painful. It seems necessary to embrace heterogeneity of changing media more actively.

In the way of approaching media, the unclear distinction between devices and platforms is prominent. In most studies, television was treated as the same as broadcasting. It has been treated in relation to broadcasting and programming in most papers. The truth is, however, that television may be a technological container for package contents as shown in the use of the Play Station in the connection with television. Also, it can be associated with non-broadcasting platforms such as OTT. It is surprising to see that non-television based broadcasting such as DMB or non-broadcasting based content services such as Netflix have not been studied. Various inter-relation among devices, platforms and contents should be investigated. For

example, broadcasting studies out of television centrality and television studies out of broadcasting centrality can be conducted. It is necessary to be critical about the inertia that is stick to the framework under the formula of ‘television = broadcasting’.

In the meanwhile, PCs and mobile media were distinctively separated from their content or platform. It is also important to note that interest in devices has weakened and research focus has been concentrated on services or contents as online platforms have emerged since 2000. The physical characteristics of devices disappeared, and only services such as Twitter or Facebook remained in the studies. The problem is that it is difficult to find understanding of medium specificity in dealing with online services. For instance, there can be various forms of online news. McLuhan would probably say that the ‘message’ when viewed on the horizontal screen of the PCs and viewed on the vertical screen of mobile phones is different. Ignoring this, studies on online services or contents remained homogeneous regardless of their material bases.

We need to pay attention to the result that little research on new media was conducted in the 33 years of research. New media technologies were dealt with briefly only at the beginning of their release, and even, little research has been conducted for the latest technology such as wearable devices. Obviously, researchers would focus more on a certain medium when it is sufficiently industrialized and institutionalized to become dominant in the society. However, it is also the researcher's responsibility to explore and anticipate the possibilities of new media. New media research is difficult because there is no systematical background that helps researchers to operationally define the study object. For example, it is challenging to define what MCN or algorithm media is. This often leads to confusion in research and make researchers turn their interest to institutionalized media.

Based on the results, we suggest that it is time to actively embrace the confusion of the media concept. This will give new possibilities not only to the journal, which started from the legacy of television and broadcasting studies to expand media outreach, but also to the researchers who are asked to contribute to the society expanding the understanding of media. In this paper, we tried to approach media from the research trends of 33 years, understanding it in association with platforms and contents as well as devices. Hopefully, our research will contribute to the depth and breadth of future media research.

## Acknowledgements

This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2016S1A3A2924760).

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