Social Journalism in the Inter-media Society: Results from the Social Survey on the Great East Japan Earthquake and the Fukushima Nuclear Power Plant Disaster

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This paper discusses the future of journalism, including social-media use. The findings within this paper are based on the results of the "Social Survey on Social Media Use in the Great East Japan Earthquake."² The author conducted this Internet-based survey in June 2012, and the results discussed herein are based on a sample size of 1,000 persons. The main findings suggest that social-media use during and immediately following the March 11, 2011 earthquake in Japan has been developing in a mutually complementary manner with traditional media.

Keywords: Social Journalism, Inter-media society, Great East Japan Earthquake

Introduction

The Tohoku region, a large area in north-east Japan, was severely hit by the Great East Japan Earthquake that occurred at 14:46 on March 11, 2011. The major earthquake had an impact not only within Japan but also on the entire world. As expected in a disaster situation, people initially searched for information immediately following the disaster. However, in this situation, damage from the earthquake extended to the news media as well, and the fragility of the media itself was exposed. Even in the center of Tokyo, neither television nor cellular phone coverage was available, despite the great need for rapid and accurate media and communications information that are indispensable lifelines for residents in the immediate aftermath of the disaster. Ultimately, the Great East Japan Earthquake revealed many problems for the mass media, as well as the potential for major changes in the future concerning the relationship between people and mass media channels.

In recent years, social attention has been drawn to social media, which has gained prominence since the mid-2000s. Of course, it is meaningless to disregard the interruption of electricity and circuits by the disaster as well as the relative low rate of internet utilization in the stricken areas, and to overestimate the power of social media. But the power of social media cannot be ignored. The influence of social media is not isolated from that of other media channels and its close relationship with other media as seen during this disaster may not necessarily exist again. Social media has always been connected with other media as an information source. Endo refers to the connection and interaction between such media as "intermediality" (Endo, 2004).

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² The "Social Survey on Social Media Use in the Great East Japan Earthquake" (June 2012) targeting social media use in the Great East Japan Earthquake disaster (undertaken by the author) received funding through a grant from the "2012 Gakushuin University Computer Center Special Research Funds."

The "Social Survey on Social Media Use in the Great East Japan Earthquake" was conducted in June 2012. The most important finding gained from the results of the survey is that gaps in social media use among areas and among generations were expanded by the disaster. Journalism in the age of inter-mediality should bridge such disparities by using not only existing mass media but also social media. Such journalistic practices can be called "social journalism."

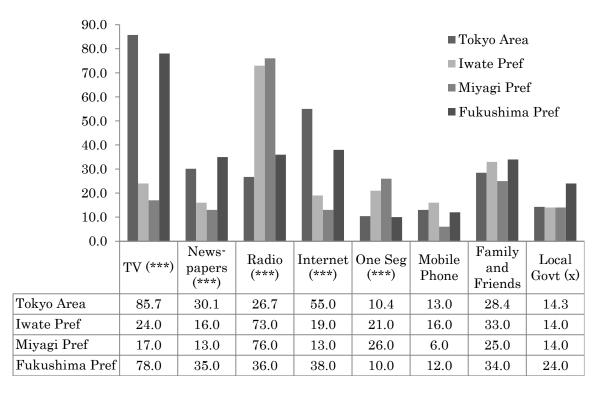


Figure 1 Omniportance of Media During the Disaster (% by area)

The 3/11 Disaster and the Mass Media

Media Usage and Information Anxiety Differ According to Area

Two major characteristics of the Great East Japan Earthquake disaster and the Fukushima nuclear plant accident were that the damage from the earthquake was quite extensive and the extent of the damage greatly differed by area. Therefore it is necessary to consider a variety of situations rather than simply refer to such regions inclusively as the "affected area."

The utilization of various types of media, many of which were useful at the time of the earthquake disaster, varies greatly according to region. As shown in Figure 1, television ranked high in importance in the Tokyo Metropolitan Area and Fukushima prefecture. But in more remote regions such as Iwate and Miyagi prefectures, where blackouts continued for a considerable period of time in many areas, the importance of TV was considerably lower. Similar tendencies were observed with regard to internet use and newspapers as information sources. The percentage of respondents who rated the importance of the Internet as being high – a "fast" media channel – was higher than those who relied on newspapers, which can be termed "slow" media. Conversely, reliance on radio and "one-seg"³ was appreciably high-

³ "One seg" is the term used to refer to the Japanese digital television broadcasting service that is available on mobile phones.

er in Iwate and Miyagi prefectures in comparison with the Tokyo Metropolitan area and Fukushima prefecture.

When the confusion just after the earthquake disaster was settled to some extent, and the blackout was lifted, differences in local use of media channels was reduced.

In the June 2012 survey, the ratio of respondents who answered that TV was "important" or "rather important" in obtaining information about the 3/11 earthquake disaster and nuclear plant accident was 85.2%, compared to 43.5% for newspapers, 23.5% for radio, and 58.8% for the internet. Though perceptions of the importance of TV remained high in the Tokyo Metropolitan area, and those of the importance of newspapers and radio remained high in the stricken area, the difference among areas decreased. In addition, with regard to internet use, statistically significant differences vanished, and the importance of TV remained predominantly high.

The high ratio of respondents who relied on TV during and after the 3/11 earthquake disaster demonstrates the significance of TV (see Figure 2). But the ratio of those who indicated that the TV was "always on" is low due to the blackouts in Iwate and Miyagi, where the demand for TV was lower ("***" indicates statistical significance of 0.1%). Though the expectations for TV were high, evaluations of the content were low. Regardless of area, approximately 60% of the respondents responded that TV coverage was repetitive, and 30% felt that TV coverage was a nuisance to the victims of the disaster.

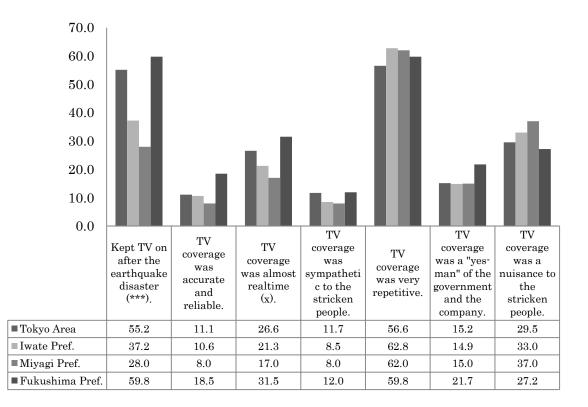


Figure 2 Evaluation of Media Coverage Concerning the 3/11 Disaster

It is obvious that there are real differences concerning anxiety about the nuclear accident (see Figure 3). In combining the responses wherein people indicated that they were either "quite anxious" or "anxious," more than three-quarters (77.1%) of all respondents answered that they were concerned about future nuclear-plant accidents. In particular, 89.0% of the respondents living in Fukushima prefecture responded that they were anxious or quite anxious about such accidents. Similarly, 82.0% of the respondents from Miyagi and Iwate

prefectures indicated as such. However, in the Tokyo Metropolitan area, the percentage of respondents who felt quite anxious or anxious was comparatively smaller at 74.0%.

Such real differences are germane to the discussion of segmentation of social consciousness among people living in different areas arising from real experience.

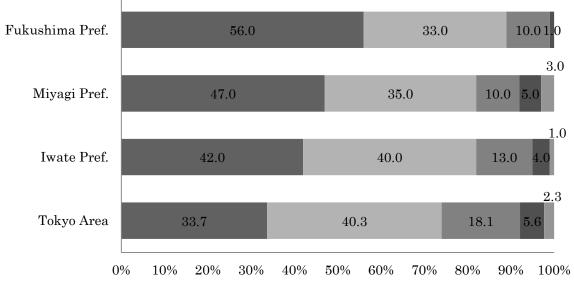


Figure 3 Anxiety about Future Nuclear-plant Accidents (by area, chi-square test, 1% significance)

■ Quite Anxious ■ Anxious ■ Neither ■ Not So Anxious ■ Not Anxious by Any Means

Figure 4 Reliability	of Information	Source Concer	ning Nuclear	Plants (by Area)
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non	Fukushima Pref.	6.0	43.0		28.0	23.0
ttior	Miyagi Pref.	10.0	37.0		31.0	22.0
Information Internet	Iwate Pref.	4.0	35.0		37.0	23.0
Infc	Metropilitan Area	8.3	38.3	}	31.6	19.9
Information from Mass Media	Fukushima Pref.	9.0	32.0		30.0	29.0
	Miyagi Pref.	7.0	23.0	46	6.0	24.0
	Iwate Pref.	4.0	27.0	37.	0	31.0
Ц	Metropilitan Area	8.4	32.6		31.6	25.9
Information from Government and Power Company	Fukushima Pref.	7.0	23.0	25.0		45.0
	Miyagi Pref.	4.0	20.0	41.0		35.0
	Iwate Pref.	4.0	18.0	32.0		45.0
ч т	Metropilitan Area	6.0	23.3	32.9		36.0

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ■Reliable ■Rather Reliable ■Neither ■Not so Reliable ■Not Reliable

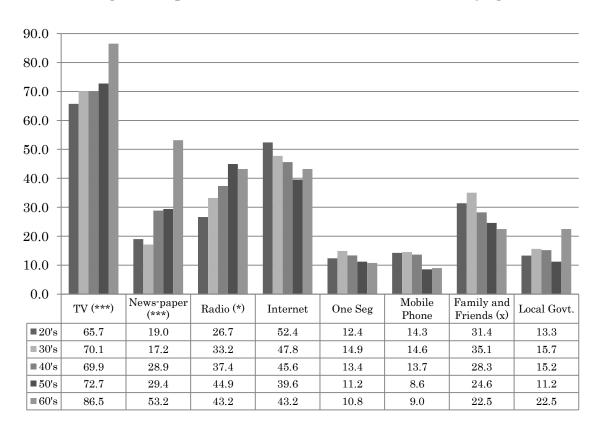


Figure 5 Importance of Media at the Time of 3/11 (%, by age)

Figure 6 shows that older generations tend to assess TV use higher at the time of 3/11.

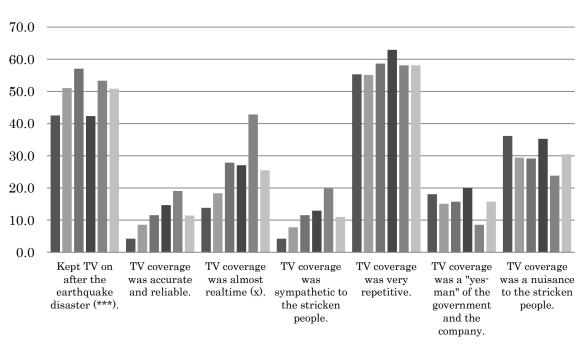


Figure 6 Evaluation of Media Coverage on 3/11 Disaster (%)

 $\blacksquare 20's \blacksquare 30's \blacksquare 40's \blacksquare 50's \blacksquare 60's \blacksquare All$

Anxiety about future nuclear accidents is linked to demand for information about nuclear plants. Which information source did people rely on? Figure 4 shows the results of the survey pertaining to reliance on information sources concerning nuclear plants. As for the reliance, there is no gap among areas. (The gap among areas is not statistically significant). However, people do not rely so much on any of information sources.

Generation Gap

The previous section described the gaps in perception among areas concerning media usage, media evaluation and anxiety about media. However, there is another gap: namely, a generation gap. This section examines the survey results concerning generation gaps. First of all, the percentages of respondents who indicated that traditional media such as TV, newspaper, and radio were important increases proportionally with age (see Figure 5). Meanwhile, younger generations were likely to respond that new media channels such as the Internet, one-seg television, and mobile phones were "important" (the gap among generations is not statistically significant).

It is interesting to note that over 30.0% of respondents answered that "information from family and friends is important." Despite common belief, higher rates of young-generation respondents answered that "information from family and friends is important." On the other hand, for older generations, more respondents answered that "information from local government is important." The reason may be that members of older generations have fewer family members and friends, and may be dependent upon official information sources. This is a point that is well taken.

Figure 7 shows that the rate of respondents who feel the anxiety that the accident that has an influence on the neighboring inhabitants at a nuclear power plant may happen in futur, as the generation rise. The relationship is statistically significant at the 1% level. The stronger commitment to the society might reflect anxiety about the nuclear plant accident.

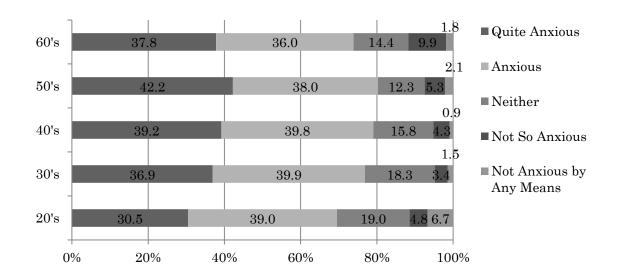


Figure 7 Anxiety about Nuclear Plant Accidents Affecting the Residents Living in the Vicinity (%, by generation, significance level of 1%)

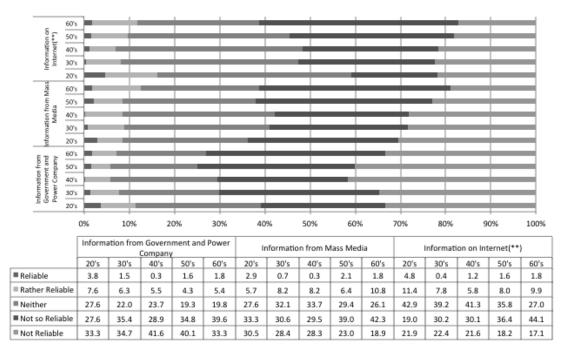


Figure 8 Reliability of Information Sources about Nuclear Plants (by age)

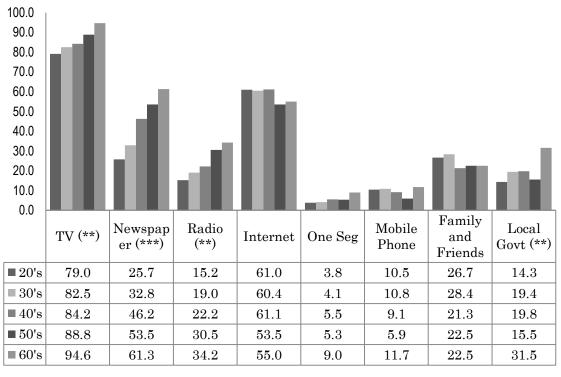
Figure 8 shows the cross tabulation of credibility of media by generation. Looking at these percentages, there appears to be no significant difference between information from the government and the company compared to that from mass media in terms of credibility. However, the percentage of people who believed that information on the Internet is credible is remarkably high among the younger generations and is also high among those in their 60s. This fact is interesting in terms of studying the relationship between the Internet and older generations.

Relationship between Usage of Media and Anxiety about Nuclear Plant Accidents

At the time the survey conducted, about one year and three months after the Great East Japan Earthquake and the nuclear plant accident, media usage of people had returned to a state that could be described as close to normal. The results of the survey (Figure 1) show little difference in media usage among regions. However, differences in media usage among generations are clear, similar to those noted at the time of disaster. Figure 9 shows the percentages of respondents who answered that "which media channel was important in finding out information about the 3/11 earthquake and the Fukushima accident" as of June 2012. The percentage of respondents who answered "traditional mass media channels, such as TV, newspaper and radio, are important" is statistically significant and positively correlated with age.

Then, are such differences in media utilization related to public opinion concerning debris disposal and nuclear plant accidents? Figure 10 shows the relationship between "important media" and opinions about the nuclear plant accident. There appears to be no observed significant relationship among them.

Figure 9 Media Channel Utilized to Obtain Information about the Earthquake and Nuclear Plant Accident in June 2012 (by generation, %, *** and ** show 0.1% and 1% significance levels, respectively)



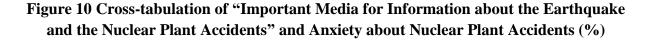
■ 20's ■ 30's ■ 40's ■ 50's ■ 60's

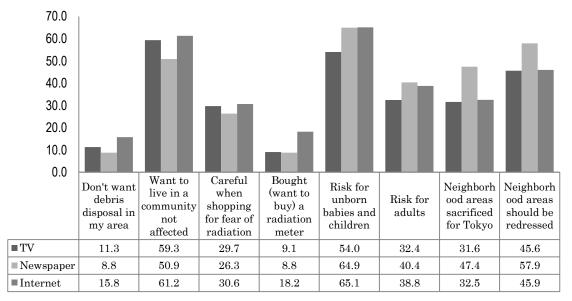
The Age of Social Media and Open Data: New Stage of Inter-Mediality

Social Media Usage

Since the Great East Japan Earthquake and the Fukushima nuclear plant accidents occurred, the utilization of the Internet and social media has received nationwide attention. Such utilization might offer numerous suggestions for what we can envisage as the future form of social communication.

However, the results of the survey show that Internet users access news sites and sites of existing mass media more than those of social media. It can be understood that the Internet is used as a new mass media channel. Older generations tend to use the Internet in such a way, and this is not undesirable. As stated at the beginning of this paper, one important characteristic of the Internet is its function as a platform for various media rather than being a function wholly of itself. Therefore, this suggests that the form of the inter-medial society could be created through the whole and sympathetic development of mass media and social media. Also, the results show that the Internet is not hard to use for older generations.





■TV ■Newspaper ■Internet

On the other hand, it is undeniable that the core users of social media are younger generations. However, there is a synergistic relationship between the utilization ratio and the utility of social media. Thus, an increase in the utilization ratio might promote the usage of social media, at least in short bursts. To increase the utility of social media (and mass media) at the time of future disasters, the utilization ratio should be increased beforehand.

The Age of Open Data

From Figure 11, another possible trend can be discerned. That is, about 10.0% of the total number of respondents indicated that they used "government websites," "university and researcher websites," and "journalist websites," regardless of age. Along with the popularization of the Internet, official agencies such as government (at any level), companies, and universities have become more positive about disclosing any primary information that they possess.

At the time of the Great East Japan Earthquake, the offices of the prime minister, the Japan Meteorological Agency, the Ministry of Education, Culture, Sports, Science and Technology, among others, provided and updated information on their websites, although many problems such as usability, accessibility, and information update schedules were pointed out. Such trends in open-access data and disclosing public data could promote the reconsideration of a framework in which journalism could be regarded as equal to media organization.

Rethinking Journalism

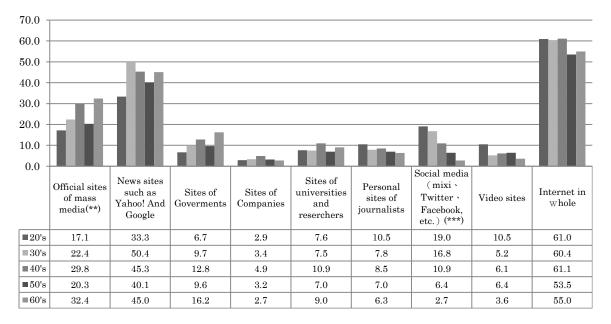
What is the role of journalism?

McNair (1998) defines journalism as "any authored text, in written, audio or visual form, which claims to be (i.e. is presented to its audience as) a truthful statement about, or record of, some hitherto unknown (new) feature of the actual, social world" (McNair 1998:4) and

insisted that this definition "allow[s] us to distinguish journalism from other forms of cultural discourse which may be similar in some respects." But such distinctions are not necessary. In this author's opinion, journalism should be defined by the functions to be performed. For example, journalism should perform such functions as follows:

- 1. Collecting social information;
- 2. Summarizing and editing social information (agenda-setting); and
- 3. Distributing summarized and edited social information to the public.

Figure 11 Important Internet Sites for Information about the Great Earthquake and the Nuclear Plant Accidents (%, by age. *** and ** show significance levels of 0.1% and 1%, respectively)



By doing so, the process above would make power structures more transparent. Thus journalism is defined as such social communication or persons or organizations publicly performing such social communication. Traditionally, journalism has been regarded as a media organization. One of the reasons has been the difficulty of information access. In other words, only officially approved (members of) media organizations were privileged to access primary information. But, as stated earlier, the Internet is rescinding these privileges of media organizations along with trends towards open data and public data.

The Failure of Journalism

On the other hand, recently, various scandals of the existing media organizations have been reported frequently. For example, in October 2012, media attention was focused on Professor Yamanaka, who won the Nobel Prize with his research on iPS cells. The *Yomiuri* news service widely publicized a Japanese researcher who transplanted iPS cells into cardiac muscles as a world-class medical breakthrough. Following the *Yomiuri*, many media organizations such as the Kyodo News Service, the Nippon Television Network, and the Fuji Television Network reported that news. However, within minutes, questions arose about this "research" and it was concluded that the news was erroneous due to a lack of verification.

On October 17, 2012, Toru Hashimoto, the mayor of Osaka, expressed frustration at an article concerning his birth in the October 26 issue of the weekly magazine *Shākan Asahi* and refused interviews by that magazine. Finally, on October 19, the *Shukan Asahi* admitted that "there was some inappropriate descriptions in that article...We made a final decision to stop the series" (Kyodo Tsūshin, 2012). Also during the same period, a woman protested to a media organization on October 31, 2012 because her photo was published in error by the *Yomiuri* newspaper, the Kyodo Tsushin news service, Nippon TV, Fuji, and other media organizations as a suspect of consecutive cases of unnatural deaths that occurred in Amagasaki, Hyogo Prefecture.

These scandals have unhinged people's trust in media organizations. One of the reasons for such scandals is severe competition among media organizations. Meanwhile, they might have added to the sense of urgency because of belated reports at the time of the Great East Japan Earthquake.

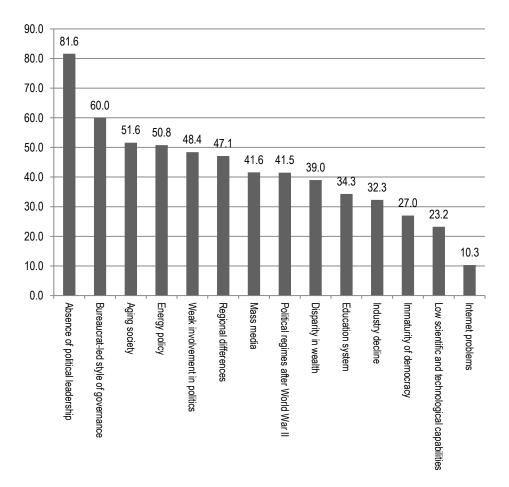


Figure 12 Social Problems After World War II (%)

Problems of Mass Media and Social Media

As a background to such problems, mass media has been criticized, as noted above. Figure 12 shows the results of the questions within the surveys asking respondents to identify problems in Japan since World War II. Slightly over 40% (41.6%, to be exact) of the respondents an-

swered they perceive problems with the mass media. In particular, people in their 30s and 40s are dissatisfied with mass media. The reason why they are so dissatisfied should be examined deeply.

On the other hand, 10.3% of respondents indicate distrust of the Internet. This figure is the lowest among all perceived problems. However, the fact that this survey was conducted via the Internet should be taken into consideration.

Anyway, the Internet is not an impeccable resource. Although 56.0% of all respondents believe that "we can access information that has been heretofore hidden [via the Internet]," 22.5% agree with the statement that "governments should strengthen regulation on the Internet" (30.9% of respondents disagree with this statement). Hereafter, we should undertake an in-depth debate concerning the Internet.

Similarly, as pointed out in the opening section of this paper and as this author has emphasized repeatedly in many other papers, the Internet cannot displace other media. Furthermore, the Internet itself can function both as a mass media channel and social media platform. What should be considered now is how to utilize such an inter-medial information environment.

New Information Circumstances

The U.S. Federal Communications Commission (2011:6) reported on aspects of the modern media landscape as follows:

1) An abundance of media outlets does not translate into an abundance of reporting. In many communities, there are now more outlets, but less local accountability reporting.

2) While digital technology has empowered people in many ways, the concurrent decline in local reporting has, in other cases, shifted power away from citizens to government and other powerful institutions, which can more often set the news agenda.

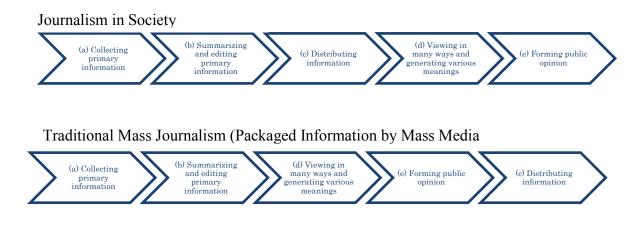
3) Far from being nearly-extinct dinosaurs, the traditional media players—TV stations and newspapers—have emerged as the largest providers of local news online.

4) The nonprofit media sector has become far more varied, and important, than ever before. It now includes state-based public affairs networks, wikis, local news websites, organizations producing investigative reporting, and journalism schools as well as low-power FM stations, traditional public radio and TV, educational shows on satellite TV, and public access channels. Most of the players neither receive nor seek government funding.

5) Rather than seeing themselves only as competitors, commercial and nonprofit media are now finding it increasingly useful to collaborate.

The same trends can be observed in Japan. It is necessary for journalism to change flexibly by incorporating new channels of information which may spring forth like mushrooms. Figure 13 illustrates the potential changes in Japanese journalistic practices.

Figure 13 Changing Role of Mass Media (Source: Endo 2005)



New Journalism in Inter-mediality (Commitment of More People)



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