

THE ROLE AND FUNCTION OF PUBLIC SERVICE BROADCASTING IN A MULTI-CHANNEL MEDIA ENVIRONMENT

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This paper is an attempt to clarify the possible future role and function of public service broadcasting in an age where a variety of new media technologies is emerging, and the number of channels available to the audience has increased dramatically. It is natural to assume that the role and function of each medium will be affected by such change. Our present task, therefore, is to examine how they will be affected. Many countries in the world now face more or less the same situation. This paper will present a case study of Japan, hoping that this analysis will have enough relevance to the different broadcasting environments in other countries, so that it may be applied to them as well.

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The Emergence of Multi-Channel Service in Japan

Television broadcasting in Japan began in 1953. A public service broadcaster (NHK) started its service in February, and was followed by a commercial broadcaster in August. By the end of 1964, audiences in metropolitan areas had a choice of seven channels: NHK's General Service, NHK's Educational Service, and five privately owned channels. All these services were transmitted through VHF channels. From 1967, UHF channels started up and provided regional service. In summary, before new media technologies had emerged, Japan had two channels served by NHK, five networks run by privately owned broadcasters, and local UHF service in each prefecture. The number of available channels varied from region to region. Today, some remote areas are still served by fewer channels than the metro-

politan areas.

Cable television in Japan started in 1955 as community antenna television. As there are many mountains in the countryside, a technology to improve reception of TV signals was needed. In its initial stage, cable television was used just for this purpose. In the second stage, some of those cable stations started to carry signals from outside the region. This kind of service increased in the remote areas during the 1960s. Then came the third stage of cable television that is usually called multi-channel CATV. According to 1995 statistics, 29 per cent of households in Japan have CATV. Among households with CATV, 6.3 per cent subscribe to multi-channel CATV. Compared to other countries, Japan's CATV penetration rate is not very high. One reason for this may be the high start up cost of CATV. Any new subscriber usually must pay nearly \$ 1,000 for equipment and line hook-up. Another reason may be the number of existing terrestrial channels available. Compared to other countries, the Japanese audience has many terrestrial channels at its disposal. Additional channels provided by CATV may not be as attractive as in countries where there are fewer terrestrial channels available.

NHK started DBS service in 1989 after five years of testing. In 1991, privately owned DBS channels began operation. As of 1995, there were two DBS channels operated by NHK and one channel operated privately. The NHK channels are mainly devoted to news, documentaries and cultural programs while the commercial channel mainly broadcasts entertainment programs. Subscribers of the NHK DBS channels number about 6.6 million (18.6 per cent) and subscribers of the private channel about 1.8 million (5.0 per cent). The monthly fee for DBS is now a very important source of revenue for NHK. It makes up about 13 per cent of their total revenue. The privately owned DBS channel is not bringing in enough revenue from subscription fees to run their operations. They are currently facing very severe financial difficulties.

Broadcasting to the general audience through CS started in 1992. In 1995, there were 11 operators serving audiences. Generous estimates put the number of subscribers at about 300,000 (0.8 per cent), and CS operators are still far away from making a profit.

In general, the multi-channel age has not yet reached Japan. People enjoy additional channels served through CATV, DBS and CS, but each service has technical or economic problems and has not spread rapidly enough to have a foothold in the market yet. However, these two years have seen significant new developments in the field of broadcasting in Japan.

First came the discussion of building an optical fiber cable network in the country. This discussion was stimulated by the idea of a National Information Highway presented in the U.S. NTT, the Japanese telephone and telegraph company, proposed the building of such a network in Japan also, and made a list of the possible uses. The ideas presented by NTT seem unrealistic, and there still exists scepticism toward that idea. The cost of building such a network is estimated at 530 billion dollars, and the time frame for the completion of the network is not clear, although NTT says that 75 per cent of households will be connected by the year 2010. Theoretically, this network will bring Japan into a multi-channel age, but its feasibility is still at question.

A second development is digital satellite broadcasting (DSB). Until recently, this technology has not received much consideration or attention. In 1994, DirecTV started its 155 channel service in the U.S., and by the fall of 1995, the number of subscribers reached 750,000. Seeing the U.S. situation, Japan decided to deregulate the related

laws, and a Japanese digital satellite broadcasting service is scheduled to start in March 1996. Initially, there will be about 50 channels. Costing much less than CATV, DSB may diffuse very rapidly. It may even squeeze out existing CATV services. Digital satellite broadcasting will not begin charging fees until the fall of 1996, because they are in a trial stage. This is another factor that will help in DSB's diffusion.

Japan is at the threshold to the age of multi-channel service. Public service broadcasting in Japan at this time is faced with the most difficult situation it has ever faced before. It has never had to deal with real competition in the past, because the Broadcast Law allowed no other broadcasting organisation to collect money directly from viewers. The law has changed, and now the pay-channels of CATV and pay-per-view services exist in the Japanese mass media market. Consequently, viewers will begin to ask why they must pay for public service broadcasting. Viewers pay NHK about \$ 13.00 every month and receive two TV channels, two AM and one FM radio station. To watch the two NHK DSB service channels, viewers must pay an additional \$ 10.00 a month. CATV subscribers, on the other hand, usually pay about \$ 35.00 a month for their basic service, which includes an average of thirty channels. Therefore, it is natural for a viewer to ask why he/she must pay \$ 13.00 for two channels whereas thirty channels are available through CATV for only \$ 35.00. This situation threatens the financial base of public service broadcasting, and it becomes necessary to re-establish the concept of public service to ensure its survival in a multi-channel age. NHK has defended the validity of its licence fee on the grounds that their programming serves the public good. However, audiences today have begun to question if they really need to maintain a public service broadcasting system.

Public Service Broadcasting as a General Service Provider in a Multi-Channel Environment

The Traditional Role of Public Service Broadcasting

Broadcasting in many countries started as a public service system, independent from the government and financed directly by its audience. Although the principles of public service have not been defined clearly until recently, there has been a vague common understanding of what public service means. For example, the principle is very vaguely stated in the Japanese Broadcast Law: NHK must provide "good" and "rich" services "throughout the country."

The role and function of public service broadcasting became a hot topic of discussion in several countries during the 1970s and 1980s. For example, when commercial broadcasting was set to begin in West Germany, the possible effects of introducing commercial broadcasting in the market were examined very carefully with regard to the role and function that public service broadcasting must pursue to meet the needs of the people. In these discussions, public service broadcasting was viewed as a system crucial for keeping the democratic public opinion process working. It does not merely reflect the diversity of existing opinion, but it also plays an active role in creating public opinion. The key concept here is diversity, and detailed discussions were held to establish a system that would secure the pluralism of opinion and information (*Kirche und Rundfunk* 1986).

In Great Britain, the discussion centred on the 1990 Broadcast Act. When the Peacock Committee presented the idea of introducing marketplace principles to British

Broadcasting, there was considerable opposition toward it, and efforts were made to define the traditional idea of public service. One definition was made by the Broadcasting Research Unit (BRU 1985), which set out eight main principles of public service. They include "geographic universality," "universality of appeal," "minority service," and "independence from the government." Discussion on this theme was further developed by Curran and Gurevitch (1991) who examined the traditional idea of public service regarding the present relationship between mass media and democracy.

In short, through a variety of discussions held the last two decades on what the definition of public service is, we now have a commonly accepted domain for public service broadcasting. The basic principle is that it serves the public, recognises the rights of every citizen in the society and acts as the best possible information source for them in order to support public dialogue. The key factors of the service are (1) independence, (2) diversity, and (3) professional competence.

To some extent, public service responsibility has also been assigned to commercial broadcasters. In a democratic society, even commercial broadcasters must strike a balance between making a profit and fulfilling a public service requirement. The extent of that public service requirement varies from country to country. In the U.S., this requirement for commercial broadcasters is expressed in the FCC's Blue Book. West Germany held detailed discussions on this matter in the 1970s and 1980s, and stated that a publicly financed system must serve as a *Grundversorgung*, thus allowing commercial broadcasters a little more freedom in their operations, and better enabling them to survive in the market. In Great Britain, commercial broadcasters were required to fulfil their public service responsibility under the IBA. Now the system has changed, and commercial broadcasters under the ITC are assigned a less heavy public service responsibility. Originally, commercial broadcasters were required to fulfil a public service responsibility because of the limited number of broadcasting frequencies. This reason is losing its rationale as many channels are now available through a variety of routes.

Scholars used to argue for the protection of public service broadcasting in the name of preserving program diversity. As commercial broadcasting tends to concentrate on the types of programs that attract a larger audience, all the broadcasting services are likely to provide the same kind of materials, thereby narrowing the range of programs the audience may choose from. Blumler, Brynlin and Nossiter (1986) proved that a broadcast company's activities are affected by its financial system. They analysed the programming policies of publicly owned channels and privately owned channels, and found that privately owned channels tend to concentrate their programming on particular program genres. This behaviour is logical since they must make a profit to survive, and certain types of programs appeal to a greater portion of the audience than others.

Public service broadcasting, on the other hand, does not seek profit in the market; thus, it is able to provide a diverse range of programs to fulfil all the needs and requirements of its audience. Here, diversity is the key idea of public service. This logic used to have persuasive power. The coming of the multi-channel age, however, threatens this logic.

When the Japanese began discussing the multi-channel situation decades ago, it was thought that every channel could offer a specialised service, and broadcast the same program genre 24 hours a day. Each channel would be allocated an existing type

of program genre, and audiences could choose any type of program at any time of the day. It was thought that this situation represented the ultimate freedom of choice for viewers.

If this were true, public service broadcasting that collected fees directly from viewers and supplied diverse information to them, would have lost its reason for existing. Because of this possibility, many studies were conducted to examine if a multi-channel system alone could maintain diversity in broadcasting.

A Model for Multi-Channel Service

The image of multi-channel service most frequently discussed in Japan is the one with many specialised services where the viewers are able to choose the ones that satisfy their needs. The channels are operated commercially and free competition determines the best combination of service for the audience. This model continues to survive today, supported by interests which will benefit from it. The model itself has several flaws.

First, studies have proved that a large number of channels do not assure the diversity of the broadcasting service. Sonnenberg (1993) proved that an increase in the number of channels does not bring a diversity of service with it:

the assertion that competition provides diversity has been maintained by making diversity a product of competition by definition, stripping the term of important cultural assets it had at the beginning of the discussion about broadcasting. Contrary to assertions of supporters of the marketplace theory of broadcasting, the results of television economics suggest that the increase in the number of channels and a different financial basis in the form of pay-TV might be able to provide diversity only according to a very limited, economical understanding of the term (Sonnenberg 1993, 87).

There are operators who insist upon the deregulation of the number of channels they can own. They argue that with the ownership of many channels, they can diversify program supply. By owning many channels, they can operate some that do not turn a profit if a loss is compensated by other channels that make good profit. "Diverse service" in their terms may not mean cultural diversity as Sonnenberg pointed out. Furthermore, though the operator may run a non-profitable channel while s/he continues to make a profit running several, if the financial situation were to sour, there is no doubt that the non-profitable channel would be dropped before any of the others. Diversity provided through widened channel ownership thus is an illusion.

Second, even if diversity across channels is somehow provided, it can not be an adequate service for the audience. People have a limited capacity for processing information. CATV audience surveys conducted in the U.S. indicate that viewers cannot use so many channels, and on average an individual watches less than ten. Heeter (1988) reported this finding and called it "channel repertoire."

When the number of channels exceeds the number the viewers can consume, people will tend to form their own repertoire of channels to satisfy their needs. The kind of services included in the repertoire differ from one individual to another. The important point here is that there is a limit to the number of channels an individual can recognise and use. If the channel repertoire contains less than ten channels, and if all the channels are specialised, then people will only consume a very restricted variety of programs.

"Channel repertoire" has been re-examined in Japanese studies and has reconfirmed our limited capacity to use channels. Since the time and effort that we can devote to gathering information needed for daily life is limited, if the total range of needed information is scattered among the one hundred channels, then seeking out information we need will far exceed our capacity and ability.

TV program guides, for example, are not a useful information source for viewers. They can check to see what is on the major channels, but no one can check what is on one hundred channels. As a result, more and more people just sit in front of the TV and search for something to watch using the remote controller. People today do not know what programs are where in a multi-channel service. If all the channels are specialised, it will be impossible to provide a complete TV guide for viewers. They will be overwhelmed by the sheer number of channels and lose the capability of choosing effectively. Many kinds of information may exist among the many channels, but they will not know how to find what they want. Therefore, it is unrealistic to expect a multitude of specialised channels to provide a broadcasting environment with diversity. The channels cannot be fully used. Japanese scholars thus firmly believe now that a specialised multi-channel model will not work.

The Restructuring of Broadcasting in a Multi-Channel Environment and a New Role for Public Service as a General Service Provider

At present, a discussion on the total restructuring of broadcasting in the future is needed. As multi-channel TV spreads and more channels are supplied to households, we must recognise the necessity of having different services included among the various channels. The role and function of existing publicly owned and privately owned systems will have to change greatly in a multi-channel situation if they are to survive. In a few-channel situation which may only offer, for example, three channels to viewers, each channel must fulfil the entire range of broadcasting requirements. In a situation with 30-50 channels, however, we need to differentiate the roles and functions of each one. It is pointless to have many channels providing the same kind of service. Thus it is necessary to restructure the services of each in order to find the best combination for the audience. We still do not know which will become the dominant transmission system in the future — multi-channel CATV, a Broadband-Integrated System of Digital Networks, or Digital Satellite TV. We are sure, however, that whichever system becomes dominant, we will need to differentiate the roles and functions of each channel in the system.

Detailed discussion has taken place in Japan concerning this restructuring of broadcasting. It focused on three types of possible services in a multi-channel situation: "general service," "semi-general service," and "specialised service" (National Association of Commercial Broadcasters 1993). These terms are tentatively defined as follows:

- General service includes almost all categories of program genres with the largest category encompassing less than 40 per cent of total broadcasts;
- Semi-general service includes several program categories with the largest category encompassing less than 60 per cent of total broadcasts;
- Specialised service is one where the largest program category encompasses more than 80 per cent of total broadcasts.

We strongly believe that in a multi-channel situation, there will be even a greater

need for the "general service" — a traditional function of publicly owned systems. General service provides a diverse range of programs that meets all the requirements of the audience, and thus fulfils a public service responsibility. Viewers should have the opportunity to interact with various individuals with different backgrounds and viewpoints. This need is not served by a specialised channel, but rather by a general service channel. The need to have this kind of service is recognised also by Curran (1991), and he named it core media. As the audience's attention will be spread over many channels, this integrating function of general service that provides a public sphere is very important.

Still, specialised channels also have a role to fulfil. They provide a particular type of content to meet the special needs of the audience at any time.

Somewhere between the general and specialised service, a semi-general service may find its own role and function in offering a certain range of programs in greater depth to respond to audience needs. The range of programs might include local news, living information, entertainment and so forth. A semi-general service channel would have the role of entertaining the audience, promoting the cultural identity of the society, and taking up the challenge to produce innovative programs. Japanese broadcasters think that this semi-general service is the future of existing commercial broadcasting. For a semi-general service, the public service requirement would not be very strict. The service must be of high quality, but its range may be a little narrower.

Public Service Broadcaster as a Program Supplier

Expansion of the Rerun Market

The debut of new technologies spawning a multi-channel situation creates an urgent need for a huge number of broadcast programs, as there are many channels to fill. Existing broadcasters need to recognise that they are both broadcasters and program producers with the latest technology and resources at their disposal.

The most important factor that needs examination here is the expansion of the rerun market. This is a key factor that public service broadcasters must take into account when they make policy decisions for the future. An increasing number of programs are now going to CATV, DBS and CS channels as reruns. As CATV, DBS and CS channels have many broadcasting hours, there will always be a need for rerun programs. The U.S. television uses many reruns. Programs broadcast one time by the major networks are then syndicated and sold to independent stations which re-air them. The audience will often watch a popular drama again when it is re-aired. This rerun strategy was adopted wholeheartedly by Ted Turner who used it frequently and very successfully. When he planned the superstation service with his UHF station WTBS, he purchased a large number of old TV programs and put them on the air. Once again, many people enjoyed "I Love Lucy," "Lassie" and other monochrome shows that were popular decades ago. This development highlights an interesting phenomenon: people sometimes appreciate things which they already know very well. Japanese television has been undervaluing reruns and misunderstanding the television audience. In other fields of creative art, people often enjoy and appreciate hearing and seeing the same material repeatedly. In the field of music, for example, a person will listen to the same piece several times and come to know the whole melody, yet that person will still continue to replay and enjoy it. Everybody has had the experi-

ence of going to the movie theatre twice or sometimes three times to see a favourite movie again. Japanese TV has long been neglecting these characteristics of audience behaviour. It has continued producing new programs, and failed to mine the rich potential in reruns.

In European satellite broadcasting, we find many channels that broadcast rerun programs. These channels share a common characteristic: they are operated by public service broadcasters from countries that use the same language. 3SAT is operated by the public service broadcasters of the German speaking countries of Germany, Switzerland and Austria. TV5 is operated by the public service broadcasters of French speaking countries including France, Belgium and Switzerland. Public service broadcasting has a long history in Europe and is at a high level of development. These public service broadcasters also keep a large stock of programs which are readily available for supply to new media. Airing reruns is again an important strategy for them.

Rerun programs possess another advantage in a multi-channel situation. Research has shown that viewers in a multi-channel situation tend not to select a program before starting to watch. The diffusion of remote control equipment caused this tendency. Having a remote control and a wide range of choices, people stopped checking the TV program schedule in advance. Instead, they would look for something to watch by quickly switching from channel to channel (Heeter 1988). Ishikawa (1986) examined this audience behaviour and hypothesised the advantage of rerun programs over others in this type of program selection process by the viewer. He pointed out that viewers can recognise a rerun program with just a brief glance, and also estimate the type and degree of satisfaction they might derive through watching it. In a multi-channel situation, viewers are faced with many choices: it is very difficult for them to estimate the kind and degree of satisfaction they might derive from each alternative. Sometimes their selection turns out to be "successful," and they receive satisfaction. However, there always exists a risk that they will choose something unsatisfactory and waste their time. In this decision-making situation, a rerun program that assures a certain degree of satisfaction is usually a safe choice. It may not be the best choice, but it is always, at least, not a bad choice.

Thus, when taking into account audience behaviour, rerun programs have two advantages over other kinds of programs. Firstly, viewers tend to like things they know well. Secondly, in a multi-channel situation, rerun programs are easily recognised by the audience, and assure a certain degree of satisfaction to the viewer.

Reruns and the Market Structure

For the rerun to become an important source of revenue for existing broadcasters, certain market conditions are necessary. For example, in the U.S., for more than two decades reruns could not be a main source of revenue for a network. American network production of programs is limited to a few program genres such as news and documentaries. For entertainment programs, production and broadcasting are separate. Studios make programs and sell them to networks, syndicators and CATV suppliers. After programs are broadcast once on a major network, they are then sold to independent stations as off-network syndicated programs. There is an established market for the programs' second run, but networks have been unable to sell their programs for a second run and make a profit. The Financial Interest and Syndication Rule made by the FCC in 1972 prevented major networks from going into the syndi-

cation business, but this rule has been recently changed to allow networks pursue syndication.

The Japanese case is somewhat different. Key-stations, in the Tokyo area, produce more than one half of a network's broadcast programs, and they retain all the rights. About a quarter of the programs are produced by studios, who also keep the rights. Even in the latter case, the key-station will frequently determine the buyer of the program when it is sold for re-airing. Material not produced by key-stations or studios includes purchased programs, co-productions and so forth. The amount of profit that will come from the resale of the programs is estimated to be very low, one reason being that the penetration of multi-channel CATV is still at an early stage in Japan. The situation will change, however, as digital satellite broadcasting catches on.

If a broadcaster is producing programs on its own, then it has a chance to make a profit by selling its programs on the rerun market. Thus, it is necessary to have a market system that will give broadcasters access to this kind of operation. In the U.S., this avenue had been closed, but the system has since been changed. In Japan, no such restriction exists, but the market still has not been developing.

A Long Term Memory Experiment and Selecting a Rerun Airdate

How many times can a rerun be aired? How long after the first run should the rerun air? There are a variety of questions concerning the best programming strategy for reruns. In 1990, a research project was started to find out how an audience forgets program content as time passes (Iwashita and Inagawa 1993). A group of college students were asked to watch TV under experimental conditions, and then tested to see how many of the programs they remembered after a certain period of time. The material shown to them consisted of documentaries and movies that had been shown on TV. The groups were tested at different time intervals: just after viewing, one day, two days, four days, eight days, sixteen days, a month, six months, a year, two years, three years and four years. As the subjects were college students, the longest interval possible was four years. A related experiment by Ebbinghaus (1885) concluded that people forget things very quickly as time passes. The stimulus used in the Ebbinghaus experiment was nonsense syllables. However, in Iwashita's experiment, the stimulus materials were programs shown on TV. In this case, it was assumed that memory would not drop as quickly as the Ebbinghaus curve suggested. Results from Iwashita's experiment showed that recall dropped rather sharply after the first week, and then kept dropping slowly afterwards. A very interesting point was that, even though memory of the contents faded, the evaluation of the programs remained. This finding supports our understanding of memory. When we are exposed to a program, we evaluate it, and then store it in our memory with a label. Written on that label is our evaluation of the program. As time passes, the details of the program gradually fade from our memory, and only the label remains. Iwashita's project does not clearly indicate how important forgetting is to motivating viewers to see a program again. For now we only know that memory fades rather quickly, but that the program evaluation remains. This finding should encourage companies to expand business in the rerun market.

Selling Programs on the Rerun Market

Programs in demand as reruns will have certain characteristics. Multi-channel op-

erators who need to fill their channels also want to attract an audience. It is then unlikely that programs criticised for immorality, sensationalism, or lack of decency will have a high market value as a rerun. In other words, programs that run counter to social norms may have less value on the rerun market. Many programs of this kind appear on prime time television today. They are made to appeal directly to basic human desires and may attract a large audience. However, they are less likely to be successful as rerun programs. Firstly, they provide an instant gratification that may not hold up under repeated viewing. Secondly, the evaluation of the programs may not be very high even though the audience watches them. On the other hand, programs that provoke a deep, emotional response, or give people an opportunity to think about important things, or help develop their social and cultural identity will have a better chance of being selected for viewing as a rerun in a multi-channel situation. Those programs can be recognised at a glance, and their evaluations are written on the labels of the memory stock of the people. In short, high quality programs will have more value and make more profit on the rerun market. A good example is the activities of European public service broadcasters who are jointly operating satellite channels. One reason for their success is undoubtedly the quality of the programs they have in their stocks. Here is another important business opportunity for the public service broadcaster in a multi-channel age.

Public Service Broadcasting as a Confirmation Source

With the emergence of new technologies, it seems that a new role is now required of public service broadcasting.

The Internet is an epoch-making innovative technology in the sense that it is producing a totally different communication structure. Until recently, access to technology which enabled a person to communicate a message to a large audience was restricted to a small number of people because the media were very costly to own and operate. For these reasons, there are regulations and requirements made on those who own media capable of reaching a large audience. This media system is organised in such a way that we can expect some degree of ethics and professional competence in the handling of messages communicated through the mass media.

The Internet brings about a totally different communication structure. Every individual can now disseminate a message to a large audience through this network. On the one hand this capability could be an important step towards a more advanced system of democracy where every individual can send a message to an enormous number of people. On the other hand, this capability could also very seriously threaten the way we get information. As there is no rule regulating the activity of individuals, a message disseminated on the Internet can be anything. It can be a rumour, libel, or an infringement of privacy. It is possible to spread a rumour to manipulate the stock market. It is possible to spread libel against a political candidate during an election campaign. The list is endless. In short, we are entering an age of information anarchism. People may be swamped by a flood of information that may or may not be true. In that situation, there will be an urgent need for individuals to have an information source with which they can confirm if the messages they receive are true or not. Until recently, the mass media have served as a confirmation source for people who need one. For example, the mass media will often be able to kill a rumour when people turn to them for confirmation. This confirmation function of the mass media will be-

come extremely important for people in a multi-channel environment.

Taking into account the amount and speed of information flow, the media will find it difficult to fulfil this confirmation function. Printed media, for example, may not be able to provide quick confirmation for their readers. Broadcasting, on the other hand, may receive requests from viewers who missed a message when it was aired. All existing media may be required to start a new service to fulfil this confirmation role. One practical method will be to open a web page on the Internet and provide the information needed for fact-checking. Among the web pages used by people as their confirmation source, the most important will be the web pages provided by public service broadcasting. Public service broadcasting is uniquely qualified to fact-check junk information on the Internet, because it is independent and possesses the necessary professional skills. Public service broadcasting, by definition, must serve the public. It needs to take the initiative and fulfil its new role as a confirmation source. If it succeeds in this field, it will earn another reason for being in a new media environment.

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