3rd Meeting of the Study Group on Next-Generation Broadcasting Technology
Summary of Minutes

1. Date and time: January 30 (Tues), 2007 17:00-19:00

2. Location: Special Conference Room No.1, 8F Ministry of Internal Affairs and Communications

3. Attendees

(1) Members (Honorifics omitted)

Akiko Aizawa, Susumu Ito, Hiroshi Esaki, Jiro Katto, Satoshi Kobayashi, Kazuhiko Sato, Ryoichi Mashiro, Yoiti Suzuki, Kenkichi Tanioka, Aiichiro Tsuzuku, Hiroshi Harashima, Harue Maeno, Yuichi Matsushima, Masaaki Mitani, Ryosuke Yokoi, Satoshi Ishibashi (substituting), Shuichi Matsumoto (substituting)

(2) Exponents (Honorifics omitted)

Chiharu Kamise, Shunichi Sato, Hideki Suganami, Hiroshi Takizuka

(3) Ministry of Internal Affairs and Communications

Suzuki (Director-General of the Information and Communications Policy Bureau), Nakada (Deputy Director-General of Minister's Secretariat), Okubo (Director of the Broadcasting Technology Division), Takeda (Director of the Satellite and International Broadcasting Division), Honma (Senior Technology Planning Officer), Fuseda (Senior Technology Planning Officer), Kondo (Assistant Director of the Broadcasting Technology Division), Maruyama (Chief of the Broadcasting Policy Division)

4. Proceedings

(1) Opening

(2) Minutes of the 2nd Meeting of the Study Group, etc.

(3) System image and technical issues expected of the next-generation broadcasting technology

(4) Free discussion

(5) Closing

5. Major discussions

Discussions were implemented after the Secretariat explained about the system image and technical issues expected of the next-generation broadcasting technology. The major discussions are given below.

○ The technical issues given in "Securing safety and security" (p.12) in the Reference refers to

“multiple watermark embedding technology”. Since the “watermark embedding technology” often criticized as a passive technology, it would be better to make the statement to imply that “the technology is not just embedded but is to be used in such and such” in order to be smoothly linked to the statement “identification of the distribution channels for protecting copyrights” written just underneath.

○ On which side are you standing; will YouTube decline or increase its influential power?

○ When observing communication traffics, traffics from the US to Japan have been increasing thanks to YouTube. In the case of winy, it has once been extremely increased but is at an even level now. It seems that distribution is shifting toward professionals. YouTube may follow that trend.

○ Seeing from the user side, separation appears to be made in terms of whether it is a safe product or whether it is inexpensive and can be used lightly. As for the problem of rights infringement, I think some measures must be taken by the Government and then users will feel secured to watch broadcast and use YouTube.

○ It is also necessary to think that what the mechanism for actively utilizing Vtube and Xtube will be so as not to get upset when they appear in the future.

○ There is a statement about ultrahigh-resolution videos. Currently specifications are different between digital cinemas and broadcasting, which may deeply affect business models. Tell us how such specifications will develop in the future.

○ The current status appears to be that the names and specifications are different depending on the position just as the term “digital cinema” became unusable according to the intention of the US upon the standardization of ITU and it is not the discussion in the technical aspect.

(Free discussions)

○ When thinking of safety and security, they reside not in contents per se but on the receivers’ side. Whether the expected levels of safety and security can be obtained depends on community. Rating of the site, for example, may become one of the criteria of safety and security.

○ What is the hottest topic in the field of radio transmission is cognitive. How flexible the platform can be made may be the point for the next-generation broadcasting system. It is necessary to identify to what extent the restriction be provided and to what extent the freedom be allowed when technologies that can realize various things further develop. Also, information will increase more and more in the future while the development of technologies for animation recognition has currently been slow. Thus, technologies for automatically extracting meta data such as understanding of images and voices may be urgently required.

○ Young people today are eager to engage in a sort of group broadcasting and a form to support that will be realized in ten to fifteen years.

- ○ It is true that technologies are important, but it is also requested of researchers to develop technologies after considering the service concept. Broadcasting services in the future may include, if speaking out of the box, automatic translation broadcasting, and attachable speakers and attachable displays which turn anything into a speaker or display by attaching a seal.
- ○ AS graphics are taken for granted now, sense of touch may change applications when thinking of something having an impact.
- ○ It is perhaps only Japan that have been introducing to the global society the status of research and development from a quite early stage and that is a very good tradition. When the area of communication has become defacto standardized and the frontier of researches are not often presented to the world now, broadcasting is not the case. I hope such a good tradition will be maintained.
- ○ It is a problem that those who had made the system are forced to work when it is brought into actual operation after the achievement of research and development. In the case of digital broadcasting, I hope that technology will save the working stages that tend to be labor intensive such as manual entering of a huge amount of contents meta data in the process of hyper-intelligentization.
- ○ Since Design For Environment (DFE) that takes energy saving as well as recycle and environment into consideration will remain of major importance even in many years ahead, please expressly state such terms.
- ○ A very fundamental multi-modality information processing researches such as how to delay the sound to meet the viewpoint when, for example, free viewpoint and free audiopoint technologies appeared is essential for human-friendly technologies.
- ○ The research and development of super high vision is difficult and I believe that Japan should do what other world cannot. In order to realize it, a technical breakthrough based on basic/fundamental researches is necessary which requires support from the Government. I believe, that if we set a goal toward which we proceed, even hardworking efforts of basic/fundamental researches can lead to a great technical revolution/technical innovation.
- ○ When baby-boomers are retiring from the forefront, I would request the development of technologies easy-to-use for consumers which prevent them from being involved in troubles.
- ○ Credibility and reliability of contents will become more and more important. Now, manipulation of information and credibility evaluation are difficult even in the test bases on the Web, I think the credibility evaluation about the next-generation broadcasting and animation will become quite important in the future. Thus, the automatic meta data generation technology may be essential.
- ○ The most advantage of broadcasting is multiple addressing. Given the audience share of 50%, only one wave covers 5-6 million audiences. It seems that it is now the time to consider a new

form of use of broadcasting from the viewpoint of the substitution of media by utilizing this multiple addressing. In order to establish a business there, a charge system will become essential. There may be expansion of the usage form of broadcasting based on linkage with cellular phones; for example, charging may be done by inserting the user's cellular phone in a slot provided on the TV set.

○ Radio waves today are under circumstances which hamper incentives to work for aggressive technical development, for instance, for advanced band compression technology. It may be necessary to think about flexible operation such as to lend the remaining portion to others to get money if you succeeded in compressing the band.

○ As technologies develop, it cannot be helped that some appear after a lag and their follow-up is also important. If we lead the world in developing such technologies, it will be an appeal from Japan. ISDB-T is a world's preeminent system as the broadcasting service for mobile/cellular phones and Japan is the top runner also in the exploitation of services such as mobile server broadcasting. I believe we may be able to enhance our global competitiveness by promoting such researches and spread them to the world.

○ There are two fields that we look to for broadcasting to keep on developing in the future. One is the mobile multi-media broadcasting which has various forms of development such as not only providing information in wider areas but also providing services to smaller areas. The other is beyond HDTV. High-resolution video is a specialty of Japan and it was the broadcasting industry that led it. Commercialization of full-specification terminals of HDTV implies that it is now the time for us to decide the next goal.

○ I think the development of hard disc recorder was a wonderful revolution. High-vision recording free from deterioration allows audience to gain control of time. One day consists and will consist of 24 hours and broadcasting is obliged to give message of how people should use the time. We should have a viewpoint of what technical development can be expected toward that. Then, I irresponsibly thought that you could see videos in your dream if you actually have no time to watch them, and every one laughed. However, there may be such services that will possibly be realized in twenty years.

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