

Special Exhibition at the Broadcast Museum: "Human-friendly TV and radio"



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The NHK Broadcast Museum, an affiliate institute of NHK, held a special exhibition of human-friendly broadcast technologies from July 2 to August 25 with cooperation from NHK STRL and other related companies.

The Broadcast Museum has an antique radio that was manufactured in Germany in 1938. The device is easy to use, even for people who have visual impairments, because it provides guidance on its operation in Braille. This barrier-free radio was manufactured and sold to the general public 64 years ago. I have great respect for German society, for it had already understood the fact that the radio is an important medium for the visually handicapped and chose to develop products that reflected their needs.

Broadcasting has become more varied (richer) and more convenient in the digital era. Its benefit should be delivered equally to everybody, regardless of handicap. Barrier-free broadcasting has been developed by NHK and many private broadcasters for people with visual and hearing impairments. Manufacturers, as well, provide receivers suitable for these broadcasting services. Along this line, new measures that reflect the reality of our aging society, in which elderly people often have trouble hearing TV and radio broadcasts, are also being studied.

NHK, with STRL being the main center of the initiative, has been developing new human-friendly broadcasting systems and receivers for handicapped people. The exhibition at the Broadcast Museum showed practical broadcasting systems and prototypes that use state-of-the-art digital technology and incorporate human-friendly concepts. STRL



A barrier-free radio made
64 years ago. (NHK
Broadcasting Museum's
Collection)



Many visitors come to the Broadcast Museum during the summer vacation season.

provided the following exhibits:

- A very thin display with a flexible and foldable screen made of liquid crystal film. Even bedridden persons find it easy to use.
- A new radio that incorporates three technologies to help the elderly or hearing impaired comprehend broadcasts. It employs speech rate conversion so that a listener can hear a slower, yet natural version of the speech in the broadcast. It uses sound compression control that provides clearer sound, and it has a repeat function so that the listener can confirm parts that were still not well understood.
- Human-friendly receivers that deliver news and data broadcasting contents through a tactile presentation, such as Braille, and natural synthesized speech.
- An easy-to-use interface employing speech recognition, a function to slow down the speech rate in a broadcast program, and a viewing support function.
- A speech recognition system for simultaneous subtitling.
- A retinal surgical system using a Super-HARP HDTV camera that enables a surgeon to perform retinal surgery with weaker illumination, which is gentler on the eyes of the patient.

By being able to interact directly with these exhibits, visitors to the exhibition could imagine the rich and human-friendly television and radio that will be possible in the digital era.