

Our Vision of Human Interface Research

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With the advent of the broadband era, research and development of human interface technology is becoming more important as the various network services advance strongly. The network has become an essential infrastructure of daily life, and people who have avoided network services up to now are being forced to use them whether they like it or not. The current human interface based on the PC is not good enough to allow such people to use PCs in a stress-free manner. Even people who are accustomed to PCs always need time to master new applications, which are arriving in droves.

We carry out R&D activities into human interface technology so that everyone can benefit from network services. The targets of human interface research are: (1) technology to implement appliances that will replace PCs, (2) search technology to find the best information from among all the information scattering throughout the world, and (3) technology to set up a "space" that will promote communication with various levels of closeness.

The ideal appliance to replace the PC would provide easy access to the desired menu, and could be initialized, upgraded, and maintained via the network. We are aiming at practical introduction of an appliance that requires the user only to buy it and connect it to the information socket in his/her home so that it can be initialized and used continuously without any effort on the user's part.

Regarding the search technology, web text searching is reaching maturity, but it is hard to say that the search results are optimal. The user usually needs to scan the result list repeatedly before reaching the desired information. It is important to improve the human interface for this. In addition, we must develop technologies to improve the usability of multimedia search technology that can search for images and sound.

We are emphasizing technology for setting up a space that can stimulate communication. As network

services advance, they cease to be mere services and begin to act as a "cyber society". Compared with real society, the cyber society can provide easier connections to remote sites. In addition, users can use the huge amounts of information and computer power available within the network, so they can achieve things that are impossible in real society. However, communication in existing cyber societies is limited. It is either text-based chat/bulletin boards with messaging among anonymous users or telephone/mail among acquaintances. It is rare for communication among anonymous users to make a smooth transition to communication among acquaintances. We plan to achieve this transition seamlessly because a seamless transition is necessary for cyber society to acquire the communication functionality offered by real society. We call this space "SuperSpace". It not only supports the seamless growth of communities, but also extends the time axis towards the future from the past. Past communities/events are recorded and reused to support present life. In addition, we can prepare for future events by simulating the future based on past/present data. We plan to carry out R&D to achieve this SuperSpace with an advanced human interface.

