Remarks for Special Issue on Human Interface

On behalf of NEC, I would like to express our appreciation to all our customers for their support of our products and services.

In recent years, advances in information and telecommunications technologies have come at a dizzying pace. The penetration of technology is relentless with more homes, workplaces and public facilities boasting environments supported by highly sophisticated information and communications infrastructure and equipment than ever before. Moreover, these technologies continue to grow in importance as essential social infrastructure. The impact of the convenience and benefits brought by the widespread adoption of PCs and other digital information equipment and appliances by households is immeasurable. However, as these devices become increasingly multifunctional and their operation grows increasingly complex, we are beginning to see a growing gap between those who can fully exploit the power of this technology and those who cannot. All major infrastructures from communications and transportation to the financial industry have large-scale information systems as their nucleus. Regrettably in just the past 1 to 2 years, there have been reports of several major information-related incidents caused by human error.

Whether it is an advanced appliance for the home or a large-scale system in a corporation, it all comes down to the human factor: the consumer or operator who uses and operates the equipment. Accordingly, the adoption of a more human-centric approach is penetrating all aspects of life and society, and the challenge of providing a more human-friendly interface grows increasingly important.

While the importance of human interfaces not only is an issue for users but also is gaining increasing recognition from the providers of goods and services, the current state of the human interface can be described by its development based on experience and know-how and the lack of a clear design methodology. Numerical guidelines from an ergonomic perspective such as desk and chair size, vision distance, etc., development processes in the field of human-centric design, and standardization of accessibility are all being promoted; however, the domain of human interfaces is extremely broad and deep, and therefore, most of the guidelines are locked into a specific perspective and there is no universal approach to develop widely applicable guidelines.

At NEC, we have accumulated a vast reservoir of technology and know-how through our constant exploration of methods to evaluate human interfaces, research and development into design guidelines, and repeated trials of their application in products and services. Also in the domain of hardware and especially through our high-performance, high-density packaging technology, we are realizing devices that are thinner and lighter in weight. Our technology is being exploited for the web interfaces used by personal computers and mobile phones. Recently, we have incorporated its human interface design guidelines in our standard methodology for system development, and pursue the design of functions and their ease of use in parallel, giving human interface design equal weight in the process. Our goal is to deliver systems that are both easy to use and resistant to human error to our customers.

Focusing on SI-related and software package-related aspects of our technology, this special issue on the human interface will introduce processes with improved ease of use, our activities aimed at improving usability, and functions designed to promote ease of use. NEC endeavors to improve the operability of our products and services, providing convenient usability based on a unified approach. In addition through the improvement of accessibility and other advances, we hope to contribute to empowering our customers around the world with equal access to the sophisticated functions used in our services. I hope that you find this issue informative, and will continue to provide us with your invaluable support, encouragement and feedback as NEC pioneers new frontiers in human interface technology.

KASAHARA Yutaka
Vice President