About Us: Cybermedia Center, Osaka University

Cybermedia Center
Osaka University

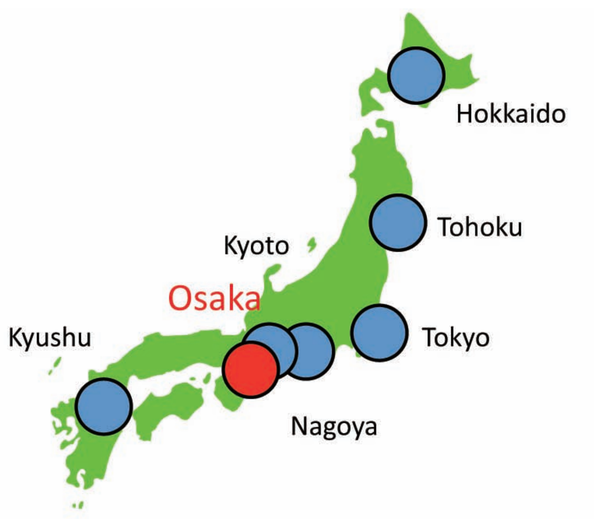
Cybermedia Center, Osaka University, Japan

In April 1969, the Computation Center (CC) of Osaka University was established as a laboratory that provides researchers of universities and other institutes computation and information processing services indispensable to their academic researches and education. CC of Osaka University was a part of a grand-scale endeavor by the Japanese government to found seven such supercomputer centers across the nation after accepting the Japan Science Council's suggestion to facilitate the collaborative use of information technology amongst researchers. The other supercomputer centers are located in Hokkaido University, Tohoku University, Tokyo University, Nagoya University, Kyoto University and Kyushu University.

Subsequently, CC of Osaka University and the supercomputer centers of Tokyo University and Kyushu University were reorganized into the Information Infrastructure Center for the collaborative use of information technology for researchers in Japan and to serve additional functions, including conducting practical researches and reinforcing information infrastructure, all of which are aimed at disseminating information and computing technology.

In April of 2000, Osaka University expanded and reorganized CC to form its branch of the Information Infrastructure Center, which was named the Cybermedia Center (CMC). In the expansion, the Education Center for Information Processing and a part of the university library were merged into CMC. While CC continues to provide computers for advanced scientific techniques and media services, the Education Center for Information Processing contributes by promoting education in information processing and the university library by providing digital contents.

Information Infrastructure Center



HPC System

The aim of CMC is to achieve remarkable evolution in information and computing infrastructure by complementarily and systematically integrating functions of computing technology-related organizations, as well as to provide an advanced infrastructure for the accumulation and the dissemination of digital contents and for the efficiency of the high level utilization.

CMC provides a powerful high performance computing environment for university researchers across Japan. It plays the role of the nation's hub in teaching and diffusing advanced information technology. In addition, the center assumes the responsibility of facilitating campus IT infrastructure and promoting its effective use. CMC also provides facilities for advanced education to Osaka University students. It operates an Information Education system and Computer Assisted Language Learning (CALL) system, connected by the Osaka Daigaku Information Network System (ODINS). The center offers a consistent information education curriculum, covering areas from basic usage of e-mail communication and the Internet to advanced computing technologies, such as programming, as well as provides foreign language and culture education support on various levels through a comprehensive application of multimedia techniques.

As a long-term goal, CMC supports educational and research activities by making comprehensive use of computer-related technology. Specifically, CMC develops various electronic and multimedia functions to improve the efficiency of educational activities. For research activities, CMC provides facilities to improve their scalability.

In next-generation computer applications, it is necessary to effectively "digitalize" ideas of researchers, meaning that CMC will need to deal with every stage of the research process, including information input, retrieval and collection, reports and discussion, analysis and modeling and finally visualization.

Research Divisions

Informedia Education Division develops the advanced environment for information processing education, offers educational programs on information processing and information ethics, and also conducts educational research, including faculty development programs for teaching staffs in information processing.

Multimedia Language Education Division division develops an environment for language education using multimedia, provides assistance in the development of multimedia-based language education materials, such as internationalized education using networks and foreign language programs as common subjects in Osaka University.

Large-Scale Computational Science Division supports the operation of CMC's supercomputer system, disseminates technology for visual presentation of computational results, and facilitates the advanced utilization technology of large-scale computing systems. This also offers educational programs and studies on computing science and related subjects.

Computer Assisted Science Division supports the operation of general-purpose computer systems, makes faculty developments to improve efficient computer applications for setting up and solving scientific problems, and it also offers educational programs and does research on subjects related to learning process for setting up and solving scientific problems.

Cybercommunity Division supports the planning and operation of SCS-based distance learning, plans and operates distance training in the field of advanced technology, and studies on the operation and promotion of cybercommunity plans.

Advanced Network Environment Division supports the operation and utilization of ODINS (Osaka Daigaku Information Network System), to introduce new network technologies such as high-speed networks and mobile computing environments, to facilitate the utilization technologies of large-scale wide-area computer networks, and to carry out research on network-related education.

Applied Information Systems Division develops and provides education on utilization technology for large-scale information systems, to digitalize libraries, to support the management of various databases, to implement education on information systems and multimedia systems, and to undertake education on information explorer.

Communication Network Analysis, NTT DOCOMO Collaborative Research Division has been founded this year.

Supercomputing Contest for High School Students (co-hosted by Tokyo Institute of Technology)