

**(4) Can talent respond to the demands of an ever-changing society? Promotion of young researchers who have wide and flexible views**

The preservation, application, and creation of cultural resources constitute a wide and complex issue. In order to deal with this issue, it is necessary to cooperate with the humanities and social sciences such as psychology and sociology to cooperate on an international basis and be able to flexibly respond to the abovementioned association and cooperation. It is necessary to cultivate the talent in those that have the ability on a long-term basis.

It is necessary to have extensive knowledge in related fields, the flexibility to accept new science and technology, and the creativity to develop new science and technology for the science and technology that will support the preservation, application, and creation of cultural resources. It is necessary to arrange the system to support independent research activities by young researchers so that they can sufficiently demonstrate their abilities.

**(5) Is there communication between science and technology and society? Promotion of science and technology based on society's demands**

In order for the average citizen to have proper knowledge of the science and technology that supports the preservation, application, and creation of cultural resources and to correctly recognize the role that it plays, wide public participation is vital. Moreover, the spread of science and technology that can be reflected in the average citizen's life and actions, and the enrichment of informative activity are indispensable.

From this perspective, it is important to provide the average citizen with information via the Internet as well as science pavilions, and also in a comprehensible form, so that they may accurately understand the results of each item of research. Consequently, the average citizen will have a deeper understanding of the science and technology that supports the preservation, application, and creation of cultural resources. And the civil agreements regarding the necessity of such science and technology will be built, and will contribute to the preservation, application, and creation of cultural resources.

In particular, it is necessary to provide a new environment in which everyone can easily survey various good quality information regarding cultural heritage over the Internet. At the same time, it is essential to transmit the wonderful cultural heritage of Japan to the rest of the world. Therefore, the Agency for Cultural Affairs is promoting the "cultural heritage online design" with the aim of actively publicizing information about local or national tangible and intangible cultural heritage. It is necessary to be able to survey cultural heritage on the Internet, and the participation of about 1,000 museums and art galleries is requested by fiscal 2006. This

program must be steadily advanced.

Moreover, the demands of society always change, so we must understand these demands adequately and set research topics that correspond to them.

In addition, it is necessary to train the talented people who mediate between science and technology and society, and who transmit information regarding science and technology to society.

**(6) Is the next generation's major industry supported? Promotion of a technical infrastructure for media art promotion**

Japan has the most highly developed media art in the world, particularly Japanese animation, which has received high acclaim from foreign countries<sup>(7)</sup>. The amount of trade in the United States that relates to animation made in Japan is three times or more the amount of trade that relates to steel exports to the United States<sup>(8)</sup>.

Against this backdrop, the development of abundant original cartoons, the development of 2D (two dimensional) technology, and the accumulation of past work may be considered.

Because of the increase of television channels, there is a worldwide lack of programs.

The media art of Japan is a culture about which we can boast to the world. It will be necessary to activate the entire culture and arts in the future and to attempt further promotion of these to stimulate the revitalization.

To achieve this in the field of science and technology, it is necessary to sufficiently demonstrate the creativity of the authors. In order to support this, we must actively promote investigation into media presentation technology and to maintain a technical foundation simultaneously.

It is especially necessary not only to use an existing technology, but also to develop new technology with a premise to produce artistic works that are attractive. To reach this stage, one must develop a technology platform for the medium to long-range term.

7: Director Hayao Miyazaki's work Spirited Away acquired the grand prize (Golden Bear award) in the 52nd Berlin International Film Festival in February 2002, and won the Academy Award for Best Animated Feature Film in March 2003.

8: The market scale of Japan's animation trade in the United States was estimated to be \$4,359,110,000 per year (2002), according to the research report on the United States Animated Cartoon Market that was produced in March 2003 by the Japan External Trade Organization (JETRO)—an independent administrative agency that promotes mutually beneficial investment and trade relations between Japan and other nations. This corresponds to 3.2 times the value of steel products exported to the United States from Japan.



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