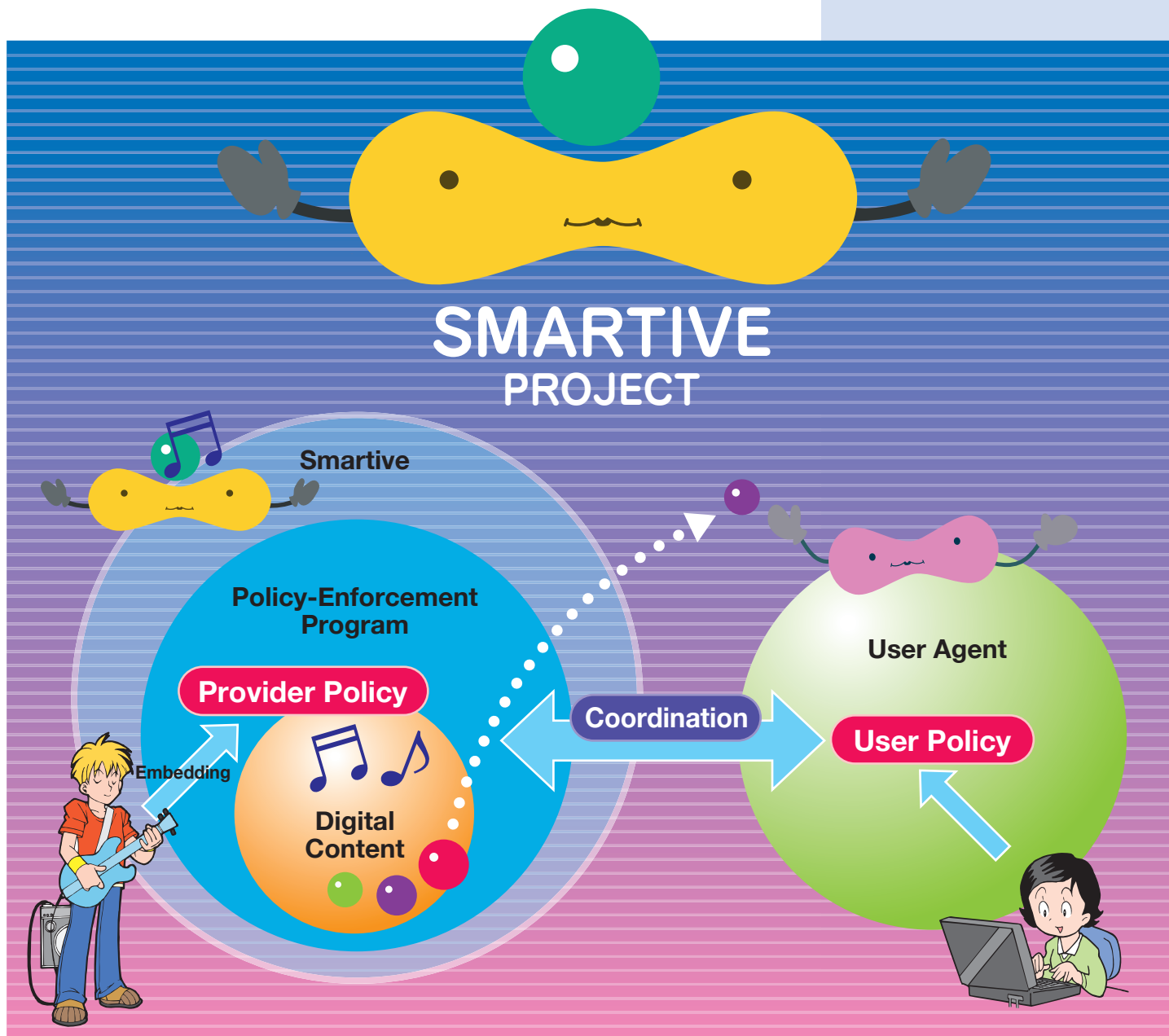


# National Institute of Informatics News

**No.19**  
2006

Corresponds to  
Japanese edition No.33 (Aug.,2006)



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## Study into the Relationships between Different Pieces of Information for Integrating a Wide Variety of Information

In the 21st century, we are in the midst of the age of the Internet, and are inundated by an overwhelming amount of information. However, it can be difficult to make informed decisions by searching for and attempting to accumulate different fragments of required information. For example, if you are intending to go on a sightseeing trip, you will need to find information on a variety of different aspects, including destinations, sightseeing spots, accommodation and transportation. It is not possible to formulate a good itinerary without comparing many different options and conditions.

In order to computerize and automate these tasks, which are currently performed manually, studies on the Semantic Web are now being conducted around the world. These studies are an attempt to automate semantic processing by adding “meta-information” to exchanged information. To realize automatic processing based on meaning, it is crucial to discover how different pieces of information are related to each other. In the example given above of a sightseeing trip, information on inns and on hotels is considered to be closely related as both concern accommodation. However, it is difficult for a computer that lacks this information, which is regarded as common knowledge for people, to make this connection unless it is specifically provided by the user. As a result, it would be necessary to provide computers

with specific relationships between different pieces of information. There would be tremendous costs incurred if a machine were required to operate in the same manner as a human.

In order to process semantic relationships that exist between different pieces of information, we have been investigating how to automatically determine the relationships that exist between different pieces of information. To date, we have succeed in developing a machine learning method, in which computers can automatically learn rules for identifying mutual relationships from a limited range of information. We have also developed data-mining techniques for determining regular patterns between different pieces of information from extremely large amounts of data. In addition, we have developed a technique for determining relationships between different pieces of information using information classification techniques that employ statistical techniques. This process is known as semantic interpretation and is performed automatically in humans. We believe that these techniques will become fundamental technologies for supporting information management systems, including the Semantic Web.

*(Ryutaro Ichise, Assistant Professor,  
Principles of Informatics Research Division)*

## Virtual Bokeh Generation from a Single System of Lenses

In order to help people to utilize image information at ease, it is very effective to construct more functional image information by including not only acquired images themselves but also additional data such as camera characteristics, conditions and environments of the image acquisition. Actually, for example, many camera users enjoy various kinds of Bokeh-Aji, which means a certain blur shape, by replacing lenses or attaching handmade malformed irises even for acquiring images of a single scene. Especially, Japanese users are keen and Bokeh can be understood as a universal word.

By combining acquired images with various kinds of information as stated above corresponding to the image acquisition, we are able to arbitrarily change the conditions of capturing scenes even after acquiring images. In other words, the desired situation of capturing the same scenes

can be virtually presented. Nothing prevents camera users from acquiring images of the scenes and the objects with various conditions times out of number until they are satisfied with the virtually generated images. We previously proposed a method of generating various images acquired with virtual irises such as all-in-focus images, where all regions of images are in focus by an ideal pin-hole iris, and arbitrarily focused images, where the blurs of all regions are suppressed or emphasized naturally according to their depths, from sequences of multiple differently focused images as shown in the figures. At present, we extend the method and study a novel technique for virtual Bokeh generation using only image sequences acquired with a single system of lenses. It enables us to enjoy various kinds of Bokeh without many lenses or irises after acquiring images. The experimental

results of image generation with virtual Bokeh are also shown in the figures.

For the future, we would like to apply video coding technology to the constructed image information in order to compress it into more compact one. In addition, we will extend our research to develop a method of constructing very functional image information that enables us to virtually generate not only free iris and focus images but also free viewpoint images, and so on.

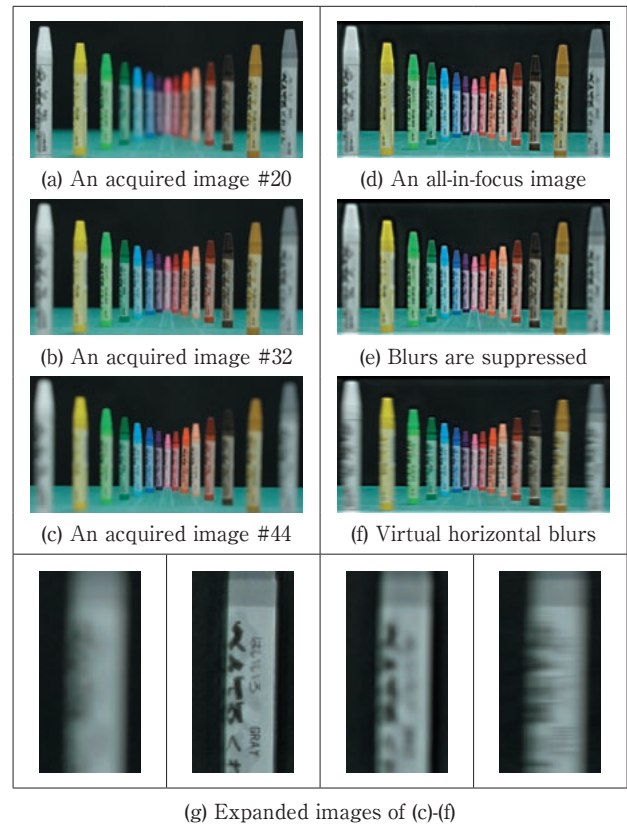
#### Reference:

K. Kodama, H. Mo, and A. Kubota :

“All-in-Focus Image Generation by Merging Multiple Differently Focused Images in Three-Dimensional Frequency Domain”, Lecture Notes in Computer Science 3767, Springer, pp.303-314 (2005)

*(Kazuya Kodama, Associate Professor,*

*Digital Content and Media Sciences Research Division)*



## NII Message from NII Researcher

### Makiko Onishi

- 1993 Graduated from School of Letters, Arts and Sciences I, Waseda University
- 1997 Master's Degree, Graduate School of Letters, Arts and Sciences
- 2005 Ph.D., Graduate School of Letters, Arts and Sciences (Literature)

The primary domain of my academic research has been Eastern Art History, particularly fine arts of Pure Land Buddhism, comprising one of the pillars in religious arts in East Asia. In my academic pursuit, I have conducted researches in Mogao Grottoes in Dunhuang, one of the centers of the Silk Roads at the far west of China. In this connection, I have been involved in the Digital Silk Road Project since May 2005. In this project, I am engaged in the iconographic material multimedia database collected by the Toyo Bunko (Oriental Library).

The Toyo Bunko, a specialized library and world-renowned research institute dealing with Asian studies in Japan, has collected wide ranging and valuable academic materials indispensable for researches in the Silk Road, including numerous basic documents frequently quoted even in current research papers. Particularly, report of explorations in Central Asia by European travellers and scholars,



central components of the database, abound with visual materials that have become the primary source material in humanities studies, including photos and plans of the relics, maps, photos and hand-drawn copies of murals that had subsequently been lost, and so on. These materials are full of possibilities for effective utilization through digital processing.

In the current year, I would like to embark on a joint research project under the supervision of Associate Professor Asanobu Kitamoto, Prof. Meicun Lin of school of Archaeology and Museology of Peking University, and Dr. Tao Zhang of the Department of Automation of Tsinghua University, who was affiliated with NII until last year, to work on search techniques and image data processing, most effective for utilization of the database for humanities studies. Another new challenge in this year is to construct a Chinese version of the website for Chinese users, the biggest user group in this field.



## Message from Foreign Researcher

JSPS Postdoctoral Fellow

### Martinet Jean

#### Education:

Ph.D. in Computer Science,  
Universite Joseph Fourier,  
Grenoble, France (2004).

M.Sc. in Computer Science, Universite Joseph Fourier,  
Grenoble, France (2001).

B.Sc. in Computer Science, Universite Joseph Fourier,  
Grenoble, France (1999).



#### Career:

National Institute of Informatics, Tokyo, Japan:

Multimedia Information Research division,

JSPS Postdoctoral Fellow, December 2005-present.

CLIPS-IMAG, Grenoble, France: Research assistant,  
October 2004-September 2005.

IR Group, Glasgow, UK: Visiting researcher,  
July 2002-December 2002.

IPAL, NUS, Singapore: Internship,  
March 2001-September 2001.

#### Background and research activities:

After I received a Ph.D. in Computer Science from Universite Joseph Fourier (Grenoble, France) in 2004, I have been awarded with a JSPS Postdoctoral fellowship for foreign researcher in December 2005. I came to NII to pursue my research activities in the Multimedia Information Research Division with Pr. Satoh Shin'ichi. My current research domain includes image and video analysis, indexing and retrieval, data mining, knowledge representation, and information retrieval models.

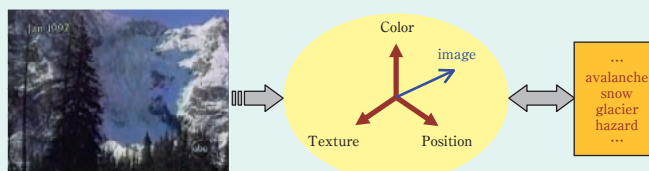
Because the amount of multimedia information (text, audio, image, video) produced every year is rapidly growing due to many factors (e.g. wide availability of digital devices, increasing interest for digital storage of multimedia documents, etc.), there is a need for indexing multimedia documents in order to provide efficient access to them. Indeed, the availability

of such amounts of data is almost useless if users have no mean to access a specific piece of information they search. Given this ever-growing amount of information, I believe that unsupervised methods (i.e. without human intervention) of machine learning are very promising approaches for scalable indexing and retrieval systems.

I currently work on inter-media data mining from large scale news video archives. Available resources in Pr. Satoh's group include the well known TRECVID<sup>1</sup> content (more than 150 hours of news video in English, Chinese, and Arabic), Japanese news archives (more than 800 hours), Japanese broadcast video archives (6000 hours from 1 month, 24 hours a day recording of 7 channels). I investigate what information can be automatically extracted through statistical multi-modal analysis. This approach takes advantage of information redundancy across several media in a multimedia document (visual, textual, audio), and correlates them. Statistical correlation between what is said (text generated from automatic speech recognition or closed-caption) and what is shown (visual descriptors of images from the video stream, e.g. color, texture, location of objects) is learnt by fitting a joint distribution model to observations. For instance, if the speaker talks about a snow avalanche in a mountain while images from the disaster are displayed, the system would ideally learn that the color descriptors of such images (white color, smooth texture) are related to "avalanche" and "snow".

After fitting the model, the system could be used either for automatic image description or region naming by submitting a new image or video to the system so that it guesses associated keywords (visual to text), or for retrieval by submitting a textual query so that it retrieves related images or videos.

<sup>1</sup>See URL <http://www-nlpir.nist.gov/projects/trecvid/>



## Kick-off of Information Explosion Project: Meeting Summary

The MEXT Grant-in-Aid for Scientific Research on Priority Areas titled "Cyber Infrastructure for the Information-explosion Era" (I-Explosion Project) was adopted in July, 2005. This large-scale research project is

being conducted from FY 2006 to FY 2010. The principal investigator is Professor Masaru Kitsuregawa of the Institute of Industrial Science, University of Tokyo. He is also a Visiting Professor of NII. This research was planned



as a succeeding project of the Grant-in-Aid “Informatics Studies,” which was conducted from FY 2001 to FY 2005. NII serves as a secretariat for both projects.

The project invited research applications from academic Researchers. After the selection process, 62 research proposals were selected in addition to the 12 planning research teams that had already been authorized in 2005.

The 287 researchers in these 74 research teams gathered for the kick-off meeting of this project. The kick-off was held at Tetsumon Hall of the Medical School, University of Tokyo, on June 7th and 8th.

All of the speakers explained their project plans and research goals so that everyone present could recognize the project profiles of each team. The I-Explosion Project aims at coping with various problems information explosion may cause for information systems, human-machine interaction, and social systems during the coming five years.

Please consult <http://research.nii.ac.jp/i-explosion/> for details.

*(Jun Adachi, Professor,*

*Digital Content and Media Sciences Research Division)*

## TOPSE Orientation Session

The Education Program for Top Software Engineers “TOPSE Project”, funded by FY2004 Special Coordination Funds for Promoting Science and Technology from the Ministry of Education, Culture, Sports, Science and Technology, was jointly established with nine private companies including NTT DATA Corporation, Toshiba Corporation, and Fujitsu Laboratories Ltd. to develop outstanding engineers who are able to fully use cutting edge tools in the building of software systems.

At the start of recruiting for FY2006 students, an orientation session was held on June 9th (Fri) at NII. After brief explanation about the goals of the TOPSE Project, syllabus configuration, schedule and course contents, participants moved to a class room and enjoyed a regular lesson for a while in order to have a taste of a real class. The session came to a close after aggressive Q & A session.

A survey conducted after the session indicated encouraging result that approx. 90% of all participants were able to obtain satisfactory information about the TOPSE Project, therefore we have decided to label the session as a great success.

*(Shinichi Honiden, Professor,*

*Information Systems Architecture Research Division)*



## Open Lecture Series by Professor Leonidas Guibas of Stanford University

In February 2006, Dr. Leonidas Guibas, a professor of Computer Science at Stanford University, stayed at NII as a guest professor to give an open lecture series (eight sessions in total) on “Information Processing in Sensor Networks.” Professor Guibas’ interests span computer graphics, computer vision, robotics, and sensor networks, and so on. In this latest lecture series, he focused on the topic of sensor networks, the background concepts and theories, and commonly available techniques, as well as specific research findings of the group of researchers under his supervision. The in-depth expositions intrigued and fascinated the audience, comprised of many students and researchers both inside and outside of NII. Special events, such as casual get-togethers and coffee breaks, were also offered to facilitate enjoyable exchanges

between Professor Guibas and the participants.

*(Imari Satoh, Assistant Professor,*

*Digital Content and Media Sciences Research Division)*



Open Lecture Series by Professor Leonidas Guibas of Stanford University

## The Department of Informatics of the Graduate University for Advanced Studies (Sokendai) held a guidance session for applicants for entry in October 2006 and April 2007 at NII on Thursday June 8, 2006.

In addition to the conventional three-year Ph.D. program, the Department of informatics has started a five-year Ph.D. program, open to those who have graduated from a four-year undergraduate course.

The guidance session was attended by eighteen applicants, who paid close observation to the explanations by Professor Hayami, Head of the Department of Informatics and Professor Yoneda, Mr. Ohmukai (Assistant Professor), a graduate from the Department, as well as overseas students, students from the workforce, and other students, who gave guidance on student life on campus. After the guided tour of the research facilities, lecture rooms, and libraries, etc., individualized guidance was given for the interested applicants, who were given advice by Professor Yoneda, Professor Shin Nakajima,

and Associate Professor Makoto Kanazawa.

*(Research Cooperation Division)*



Professor Yoneda, giving guidance

### Message from Graduate Students

#### Kosuke Numa

Ph.D. Student  
Department of Informatics  
The Graduate University of Advanced Studies (Sokendai)

The first event leading to my joining NII was an Open House I happened to visit when I was in the first year of my master's course. One of the research results introduced at the Open House captured my heart. It was also the first time I met Professor Hideaki Takeda, my current academic advisor. I had no idea about Sokendai (the graduate school at NII), and practically no knowledge about NII, but as I somehow continued to keep in touch with NII through academic societies, I actually visited NII on a regular basis. In the second year of my master's course, I officially started my research at NII by utilizing the System for Special Collaboration Research Students.



Subsequently, I was transferred to Sokendai, and have continued to be under the academic guidance of Professor Takeda.

The main theme of my research is the support of everyday information sharing. Although the Internet presents us with an enormous amount of information, it is sometimes not easy to obtain the exact information one wants. My work is thus focused on improving the intellectual productivity of those who use the Internet through use of information pertaining to the background of the user in the real world (location, time, social and human relationships, etc.).

## Participation in CEAL Annual Conference

The annual conference of the Council on East Asian Libraries (CEAL) for 2006 was held April 5 to 8 in San Francisco. Following members participated from the National Institute of Informatics: Akira Miyazawa, Professor, Information and Society Research Division; Ikki Ohmukai, Assistant Professor, Digital Content and Media Sciences Research Division; Yukino Aihara, Assistant Director, Content Division, Development and Operations Department; Ayano Hattori, staff member, Academic Information Service Section, Content Division; Mai Sekido, staff member, Academic Portal Section, Content Division.

CEAL, an association of researchers and librarians of North American and East Asian libraries, holds an annual meeting as part of the meeting of the Association for Asian Studies (AAS), an organization of the Asian-studies researchers across North America.

While NII participants attended various programs, Ms. Hattori and Ms. Sekido gave an impressive presentation, entitled "What can CiNii & Webcat Plus Do?", at the open conference of the North American Coordinating Council on Japanese Library Resources on April 7. As GeNii

has received greater international recognition since its opening in April last year, the audience was fully satisfied with their intriguing presentation.

Reference: CEAL Web site:

<http://wason.library.cornell.edu/CEAL/>

*(Content Division)*



CJM session in the CEAL annual conference (San Francisco, USA)

## Symposium, "Towards the Establishment of Cyber Science Infrastructure (CSI)" Held in the 2006 NII Open House

The 2006 NII Open House Symposium, "Towards the Establishment of Cyber Science Infrastructure (CSI)" was held on Friday, June 9 at Hitotsubashi Memorial Hall.

Masao Sakauchi, Director General of NII, gave a lecture entitled "Towards the Establishment of Cyber Science Infrastructure (CSI)." The lecture focused on the future prospects of CSI and the progress of the Collaborative Project for Advancing CSI Construction, which is promoted jointly with universities and research institutes.

The opening address was followed by a lecture entitled "the Next-Generation Science Information Network (SINET3)," which provided technical explanations and a schedule for the services, by Professor Urushidani, and a lecture on international coordination of SINET, given by Assistant Professor Matsukata.

Concerning the lecture "Construction of InterUniversity PKI (UPKI)," Professor Sonehara discussed the UPKI initiative, which was followed by reports from Assistant Professor Hirano of Nagoya University and Assistant

Professor Baba of Osaka University on the state of construction of the electronic authentication infrastructure at the respective universities.

In the last part, concerning the "Joint Project for Construction of the Next-Generation Academic information Infrastructure," Dr. Murakami, Assistant Professor by Special Appointment, gave a lecture about NII activities supporting for establishment and coordination of institutional repositories, followed by reports by Professor Yokota of Tokyo Institute of Technology and Mr. Koyama of the University of Tokyo on the institutional repositories at the respective universities.

NII will further promote the development and refinement of the network, electronic authentication infrastructure, and Academic Information, all of which are regarded as pillars of CSI, and promote the construction of CSI in coordination with universities and other research organizations.

*(Planning and Coordination Division)*



## First Anniversary of GeNii. (NII Scholarly and Academic Information)

GeNii, launched in April 2005, has been supported by many users and successfully in operation for a whole year. We would like to express our gratitude for your kind support, and present the current state and prospects for GeNii.

### What is GeNii?

GeNii (URL: <http://ge.nii.ac.jp>) offers services to search for various academic information provided by the National Institute of Informatics (NII) in cooperation with universities, academic associations, and researchers. Four databases are available on this site: (1) CiNii (academic paper information), (2) Webcat Plus (book and journal information), (3) KAKEN (scientific research information), and (4) NII-DBR (specialized academic research information).

The number of access and registered content has significantly increased over the past year.

<b>[Total number of access]</b> (as of May 2006)	1,150,000 → 2,200,000 (increased by about one million)
<b>[Registered content of CiNii]</b>	9,500,000 → 10,100,000 (increased by about 0.6million)

### Enhanced usability

We have just provided video clips showing the key points to use GeNii, such as “How to use it?” or “What kind of data are available?” They can be helpful tools at seminars and other sessions.

**CiNii** [http://ci.nii.ac.jp/cinii/en/pages/quick\\_guide.html](http://ci.nii.ac.jp/cinii/en/pages/quick_guide.html)

**WebcatPlus** [http://webcatplus.nii.ac.jp/quick\\_guide/index.html](http://webcatplus.nii.ac.jp/quick_guide/index.html)

To make users more accessible, the search window for GeNii has been set at the top page of NII. (right)

### Future plans

As well as continuing to enrich the content, we will enhance navigational functions in collaborating with search engines, link resolvers, CrossRef and others.

We look forward to your continued use of our services.

### Contact

GeNii Desk E-mail: [geniadm@nii.ac.jp](mailto:geniadm@nii.ac.jp)

(Content Division)



## The 2006 NII Open House – a Report

Each year, the National Institute of Informatics (NII) holds an open house to introduce NII's research, educational, and business activities to the general public. Held over two days from June 8-9, this year's open house featured poster exhibitions and demonstrations by educators, graduate students, and others on the results of their work in informatics. These studies covered a broad range of informatics fields – from the dream-inspired quantum computer to familiar information security issues.

On June 8, the open house included an opening message from Director General Masao Sakauchi, followed by two

keynote addresses and a lecture open to the public. The keynote address by Mr. Takeshi Yoro (Professor Emeritus, University of Tokyo), entitled “Hey Japanese, where are You going? (Nihonjin yo doko e yuku: Jouhou Gijutsu Shakai wo Ikiru)”, through discussions and analyses of a wide range of phenomena, what the Japanese people will need in the future as the field of informatics continues to develop.

In his keynote address, entitled “Associative information access makes an association of ideas, (Joho wo Hassoryoku ni kaeru Renso Engine)” Prof. Akihiko Takano of NII



discussed the possibilities of a new type of search engine fusing traditional computerized search capabilities with expert knowledge and introduced his recently developed IMAGINE Book Search service.

The same day also featured the first NII public Lecture the 2006 schedule, entitled "Surviving in IT: How to Avoid the Risks of Network Society." (See p.9 for details.)

On June 9, the open house featured a symposium entitled "Towards the Establishment of Cyber Science Infrastructure (CSI)," an event that presented the latest information on the CSI, an institution that will support next-generation research and education. (See p.6 for details.)

As part of regional cooperative efforts, the following nearby institutions also exhibited at the open house: the National Archives of Japan, the Project Atom promotion team from Tokyo Denki University, the Tokyo Antiquarian Booksellers Cooperative, the Chiyoda Ward Office, the Meiji University Library, Asso-

ciation Press (NPO), the Book Town Kanda, and Library City Chiyoda.

The program, summaries of presentations made, posters exhibited, and scenes from the open house are available at the following URL:

<http://www.nii.ac.jp/openhouse/h18/archive/>

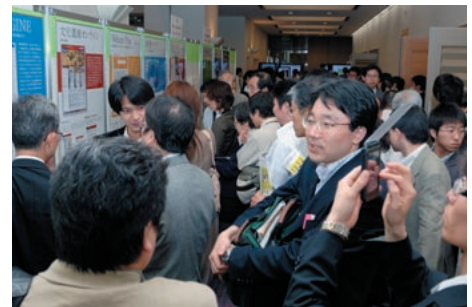
Prof. Akihiko Takano's keynote address is available in streaming video at the following website:

[http://www.nii.ac.jp/openhouse/h18/2006openhouse\\_takano.wax](http://www.nii.ac.jp/openhouse/h18/2006openhouse_takano.wax)

*(Publicity and Dissemination Division)*



Lecture by Mr. Takeshi Yoro



Exhibitions of research results

## Conclusion of International Exchange Agreement (MOU) and Holding of Workshops with Tsinghua University

An international exchange agreement (MOU) for collaborating research efforts between the Automation Department, School of Information Science and Technology, Tsinghua University, and NII was signed on Monday July 24, 2006 at NII.

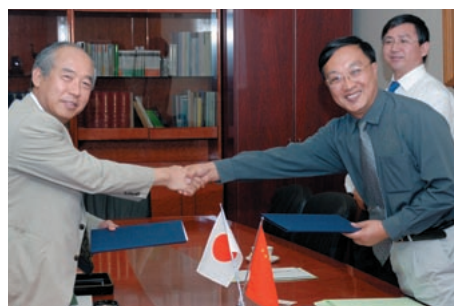
Attendants from Tsinghua University were Dr. Yi Zhang, Professor of the Automation Department and the chairman of the executive committee, Dr. Jingyan Song, Professor of the Automation Department and the assistant chairman of the Department, and Dr. Tao Zhang, associate professor of the Automation Department (visiting associate professor of NII). Those from NII were Dr. Sakauchi, Director General of NII, Dr. Tohkura, Deputy Director General, Professor Ueno, and Visiting Professor Henri Angelino (Acting Director of GLO). After general introductions to the University and NII, Professor Yi Zhang and Dr. Sakauchi signed the MOU.

This MOU is designed to actively promote, and collaborate in, joint research projects, exchanges of researchers and students, and seminars/conferences between Tsinghua University and NII. The first step is to launch research proj-

ects in three fields, that is, e-learning, robotics, and the Digital Silk Road, for which respective research collaboration agreements were also concluded.

After the signing ceremony, a business lunch was held to exchange opinions. In the afternoon, workshops were held by Professor Yi Zhang, Professor Jingyan Song, and Associate Professor Tao Zhang, all invited. On each project, a presentation was given by Associate Professor Tao Zhang, Professor Ueno, Professor Arai, Associate Professor Inamura, and Associate Professor Kitamoto of NII. Constructive opinions were exchanged about how to promote collaborative efforts in these researches. On the next day, July 25, Associate Professor Tao Zhang visited each project team to discuss the details, which effected inauguration of the joint research projects.

*(International Affairs Division)*



Signing ceremony



Professor Ueno, making a presentation at the workshop

## NII Public Lecture 2006 “Eight Words to Talk Informatics”

First Lecture: Thursday June 8th, 2006

### Surviving in IT: How to Avoid the Risks of Network Society

#### Hitoshi Okada

(Associate Professor, Information Institution Research,  
Human and Social Information Research Division)

#### Ikuo Takahashi

(Lawyer, The Chambers of Mr.Ikuo Takahashi)

#### Akio Shimada

(Graduate school of advanced studies, JAVA security engineer)

#### Mariko Yamamoto

(Freelance announcer)

The first lecture was held on a large stage in the Hitotsubashi Memorial Hall as a part of the National Institute of Informatics Open House 2006.

The speakers, a lawyer and an IT professional, gave a lecture about how to avoid the immediate risks of network society, such as phishing, viruses, and information leakage. They explained these by performing a short drama, set in the cafeteria of an IT company.

This lecture and other relevant topics will be compiled into a book, which will be published this autumn by Maruzen Co., Ltd.

(Publicity and Dissemination Division)



Second Lecture: Wednesday, July 12, 2006

### The next-generation Web: What is a new trend that is changing the net society?

Assistant Professor,  
Digital Content and Media Science Research Division

#### Ikki Ohmukai

March 2000 Bachelor of Engineering, Faculty of Knowledge Engineering and Computer Science, Doshisha University  
March 2002 Master of Engineering, Graduate School of Engineering, Doshisha University  
March 2005 Ph.D., The Graduate University for Advanced Studies  
2002.6-2005.3 Research Assistant, National Institute of Informatics  
2005.4 Assistant Professor, National Institute of Informatics  
2006.4 Assistant Professor, The Graduate University for Advanced Studies  
Research fields: Semantic Web, Information and Knowledge Sharing, Community Informatics

In recent years, a big change has occurred in the Web world. New communication tools such as blogs and social networking services (SNS) have appeared, and new businesses centered on search engines also have progressed. These phenomena are generically called



“the Web 2.0”. These changes were brought not only by advances in technology, but also by changes in Internet usage caused by the increase of users. The spread of broadband and cell phones have led a number of people to use the Internet.

In this lecture, I explored the new world of the Internet from both the sides of technology and of people. I also explained its problems and future prospects.

(Publicity and Dissemination Division)

# Karuizawa Saturday Salon 2006

On May 13 and June 17, 2006, the first and the second lectures of the Karuizawa Saturday Salon were held at the International Seminar House for Advanced Studies in Karuizawa, Nagano.

First Lecture: May 13, 2006

## For a safe and secure society

Member of the House of Representatives

**Mayumi Moriyama**

Soon after I took office as Minister of Justice in April 2001, serious incidents happened month after month, including the illegal entry to Japan of a person believed to be Kim Jongnam, Kumamoto District Court's ruling regarding Hansen's disease, and the stabbing incident at Ikeda Elementary School.

Regarding other recent happenings, active efforts for reform in the judicial system have started: the report of the Judicial System Reform Council was submitted after its three-year-term study and the government's task force on judicial reform was established with a three-year time limit. During my tenure alone, as many as 50 new laws were enacted, including a system for law school and a citizen-judge system requiring public participation in criminal trials.

On the other hand, a rash of crimes has also taken place in Japan; the growth in the number of brutal crimes and the decline in the ages of the offenders have been alarming, and the number of crimes committed by foreign people has also increased. These crimes have caused a shortage of police personnel and equipment, as well as severely overcrowded prisons.

In the wake of the child abduction-murder case at the end of last year, cooperative frameworks between neighbors and within local clubs for the elderly have been created to prevent such incidents, and the local government has



begun to reinforce them through a support system.

Recently, protection for victims of crime has received public attention as a new issue, and a basic law has been passed and an outline of measures adopted by the government at a Cabinet meeting. Measures against human trafficking have also been strengthened: comprehensive plans have been decided, relevant laws have been amended as necessary, and a part of the national budget has been allocated. Furthermore, the government has examined preventive measures against second offenses being committed by persons who have completed their jail terms or are on parole; special measures necessary for sex offenders and persons under the influence of drugs have also been examined.

Ultimately, support from the general public is also necessary to restore Japan to being the world's safest country. I believe the most important thing is to foster an awareness that we should take it upon ourselves to create a safe and secure society.

*(Excerpt quoted in leaflets handed out at the seminar)*

*(Publicity and Dissemination Division)*

Second Lecture: June 17, 2006

## Pompeii and Somma Vesuviana

Director General of the National Museum of Western Art

**Masanori Aoyagi**

Since 2002, the University of Tokyo has been working on an archaeological excavation project in the municipality of Somma Vesuviana, located at the northern foot of Mt. Vesuvius. In the 1930s-about 70 years ago-a stately Roman ruin was discovered, and from the results of partial and trial excavation, it was thought to be the villa of the first Roman Emperor Augustus. Ensuing investigations, however, have reduced the possibility of this being the villa of Augustus; the excavated remains of the constructions and marble statues increase the probability that this ruin was not a mere personal villa, but was a religious building.

In this lecture, I will introduce the achievements of past



excavations and explain how this site was related to Pompeii, which was buried by the volcanic eruptions of Mt. Vesuvius. Finally, I will explain the progress of our research subject, "Reconstruction of Culture and Resource Environment of the Areas Struck by Volcanic Eruption".

*(Excerpt quoted in leaflets handed out at the seminar)*

*(Publicity and Dissemination Division)*



# Draft Regulations for Handling Copyrighted Works of the Research Organization of Information and Systems

The Education and Research Council held on June 27th deliberated on the draft regulations for handling works of the Research Organization of Information and Systems, which was approved at the Board of Directors held subsequently on the same day. The regulations were established and put into effect as of June 30, and implemented on April 1 of this year.

In 2004, efforts were made to draft regulations by trial and error, but the establishment was postponed as the tentatively formulated regulations failed to meet the expectations of users. Subsequently, in 2005, the rewritten draft was referred to certain academic and other relevant staff members at the respective research institutes through the Intellectual Property Committee of the Research Organization of Information and Systems. After several modifications, the regulations were finally established. It is understood that the valuable opinions obtained from each staff member and the purport of the

establishment have been integrated into the regulations under the concept of serving the public in general, as the inter-university research institute, regardless of the respective holders of rights, and thus have been approved by the Executive Committee.

However, since both social trends as regards copyrighted works are still in a state of flux, and different measures have been carried out in order to amend the relevant laws, implementation thereof within the field of information systems has become difficult. Under these circumstances, we will continue in our efforts to make the recently established regulations more suitable for the Research Organization of Information and Systems, as regulations for handling works, by seeking assistance from the relevant parties concerned. As part of these efforts, explanatory sessions on the established regulations are scheduled to be held at the relevant research institutes in the near future.

*(Intellectual Property Center)*

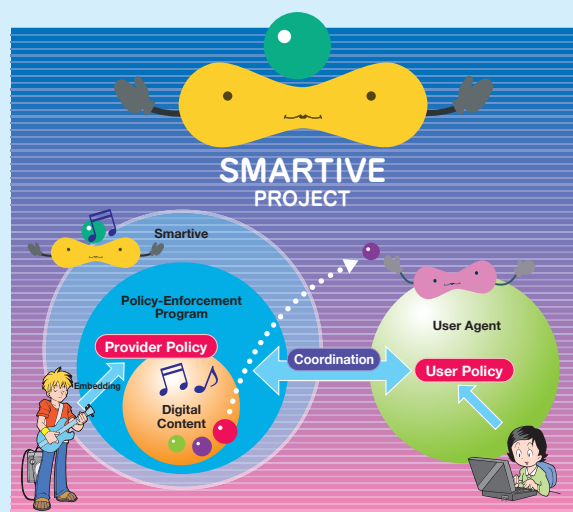
### Description of the cover

#### Thinking Contents: Smartive

With more and more sophisticated cell phones available in our daily life, we can take pictures whenever and wherever we like, add some comments to them and distribute these contents through the Internet or e-mail. Looking at the hardware alone, we seem ready to enjoy the ubiquitous computing society. However, the software for handling these contents is still immature. You may have experienced the misfortune of pictures you took with your cell phone and posted on your blog or sent to your friends by e-mail also being sent to total strangers. With such highly developed networks that the ubiquitous society offers, anyone can send and utilize contents freely without regard to time or place, though there is no peace of mind without security, through which contents can be properly utilized.

In order to realize distribution of contents in the ubiquitous computing society in which we can live securely and comfortably by striking a balance between freedom and security, we have developed a technology called "Smartive," which sets up policies within contents. This technology is used to encapsulate contents

with agents holding the provider's policies (agents of the provider). And, by setting up the use policies in the client software to be utilized by end-users, the provider's policies and the user's policies can be negotiated in the distribution process to realize optimal distribution of the contents. For more details, please refer to "<http://Smartive.jp/>."



Detailed information on the research and projects of NII is available at our Website.

▶ <http://www.nii.ac.jp/>