

2018.6.28 No.13

# Info!

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\* This English translation is provided for informational purposes only \*

■ Outline

Starting 2018, the web service for faculty&staff (herein referred to as service) and the application system for work (herein referred to as the AP system) will be offered from the hardware platform and software provided by the external operator called “public cloud” and it will be used through the internet, as a switch from the conventional on-premises <sup>\*1</sup>type offered up to now.

To be more precise, we will move the business server to the virtual server of Amazon Web Services (AWS) and switch the groupware (faculty&staff portal) to Cybozu’s cloud services called Garoon and kintone. In addition to adopting the G Suite for Education (hereinafter referred to as G Suite), which is a cloud-type application package for business offered by Google Inc., Gmail is used for the faculty&staff e-mail (KUMail) as well as for the new web tools Google Calendar, Google Drive (online storage), Google Documents (document creation and editing) etc.

In addition to improving the convenience for the faculty and staff, we can expect to reduce the operational management costs and ensure the security and availability through these changes.

■ Acknowledging current issues and initiatives taken so far

1) Groupware:

Starting 2005, the current groupware has provided the groupware functions named IBM’s Notes/Domino, bulletin board, calendar, document sharing etc. to the on-premises server installed on campus. In 2015 we renewed the screen design, the screen structure and menu display. Although in the case of Notes/Domino Kyoto University’s unique AP system has the advantage of easy development, 10 years have passed since the initial introduction of it making it aged and obsolete and is causing a large burden to operate and maintain; as a result it is difficult to continue providing the latest service. Therefore we searched for a migration to a new groupware towards the next system update.

2) Portal for faculty&staff and authentication:

The faculty&staff portal integrates the groupware function, various services and the AP system, having been operated by a single sign-on (SSO)<sup>\*2</sup> system. On the other hand, the IIMC established the integrated authentication infrastructure for the entire university and has promoted the Shibboleth authentication collaboration system, but the current groupware is certified in its own way and user registration in the groupware

is the one mastering the university's integrated authentication infrastructure database, making it a barrier in drastically changing the groupware. For this reason, taking about 3 years starting 2014, we have been trying to develop a changing way from the current groupware's authentication system's main to its sub. More exactly, we expanded the certification database that had registered mainly students to faculty and staff, completing the authentication database for all members. From here we have finished the preparations to review drastically.

3) E-mail for faculty&staff (KUMail):

KUMail, which is the university's e-mail for faculty and staff, has officially begun providing services at the IIMC since 2010. Until now, we have provided a service on an on-premises e-mail server that was acquired through a rental service, but in the past it happened twice that the storage's read and write abilities have exceeded the limit, making it inconvenient for everyone. Therefore, we have been looking for an e-mail system that can relatively reduce the cost while ensuring sufficient availability for the next system renewal. More exactly, we examined the use of the e-mail service by public cloud, for which we implemented in advance for the student school e-mail (KUMOD).

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\*1) on-premises: Install and operate an information system such as a server and software etc. in facilities managed by the organization.

\*2) single sign-on (SSO): A mechanism used for accessing multiple services and applications by authenticating once with a set of an ID and a password.

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4) Business service and the AP system:

Regarding the faculty&staff portal, in addition to the groupware function we provide the staff record, contract performance search system, large facility search system, public asset application service for investments, survey data collection system etc. making up 10 work-related services and the AP system are provided. Since these are used regularly in daily work, they also need to be migrated. Since many of these services have been developed independently on the current groupware platform (Notes/Domino), in order to switch to another development platform it is necessary to remake the application and transfer it, so we have studied the scope and concrete methods for the migration.

Moreover, in the recent years various business services have been expanded for the general public, especially the Cloud Service is offered free of charge for educational institutions. After evaluating the service contents, we acknowledged that it will be necessary to rebuild them according to the necessities of Kyoto University.

#### 5) Virtual server group for the business system:

In addition to the core business related systems of Kyoto University, such as the personnel salary, financial accounting, educational information etc., we compiled many business related systems that were built and managed since 2013 on the on-premises virtual server. From the points of view of physical security, power supply securing, business continuity planning, disaster recovery etc., these system infrastructure and servers are installed in the North Building of the Academic Information Media Center that was transformed into a data center along with seismic retrofitting and have been used as general purpose office computers. Meanwhile, because “lent servers” provided by Amazon and Microsoft etc. called Cloud Services have been enhanced, we have felt more relieved when considered using the safe cloud services.

#### ■ Basic way of thinking

The basic way of thinking towards this system infrastructure, the various services and the AP system etc. are shown below. Based on these, we thoughtfully took care of getting the new business services. We have agreed upon a contract with the company in charge in early May 2018 and at present we are proceeding on to developing and building it.

- System based Cloud use (IaaS<sup>\*3</sup>)
- Use of the latest and most convenient standard service (SaaS<sup>\*4</sup>)
- Use of the development platform environment (PaaS<sup>\*5</sup>) to secure Kyoto University's original AP system
- Securing proper availability for important KUMail service and reducing the operation management costs
- Providing authentication cooperation methods such as single sign-on (SSO) to Shibboleth

#### ■ Vision and Schedule of the New Service and the AP System (Plans)

##### 1) About groupware and the faculty&staff portal:

Just like the current groupware and the faculty&staff portal, we provide services for the faculty&staff. In order to do so, login with the faculty&staff account (SPS-ID) and use the service with the single sign-on (SSO). Also, for authentication the method used is the Shibboleth authentication cooperation method.

The service menu will provide functions equivalent to the ones currently available such as: bulletin boards, facility reservations, document sharing, secondary address books, calendars etc. Although the screen design and the method of use will change



2) About the faculty&staff e-mail (KUMail) and the service (G Suite):

The current KUMail operates the software called Mail Suite on-premises. As mentioned earlier, the system resources were tightened twice in the past and it caused a great deal of trouble to everyone. Therefore, considering that ensuring the necessary availability for the tasks is most important, we will shift to Gmail as our next system. The basis usage method is almost the same with the current one. It is possible to use it along with the web e-mail or a mailer service.

Since Gmail has unlimited capacity of mail spool (inbox etc.), the problem of not receiving e-mails due to capacity overflow (upper limit is 10GB) can be fixed. On the other hand, the limit for sending and receiving an e-mail is 25MB, so you cannot send and receive large attachments.

The most common virus infection route is an e-mail attachment. Also, referring to the principle that an e-mail is a potentially dangerous “postcard”, don’t send or receive important information by e-mail, but use safe alternatives such as “KUMail storage” and please cooperate with us in improving your e-mail literacy continuously.

As a matter of fact, the start and the migration period for KUMail is currently being adjusted. The gradual migration will be as follows: (Step1) After copying the mail spool of the current Mail Suite to the new Gmail, (Step2) Mail Suite and Gmail accounts will both receive it, and after that (Step3) in the end only the Gmail will be used. At the time of the migration, everyone should take care of the work such as the forward settings. Also, the secondary address book used mainly by the staff will be replaced by G Suite’s group mail function. The details about these are to be announced more precisely in the future.

Also, some applications of G Suite will be available as soon as they are released by Gmail. The specific items are: Google Calendar, Google Drive, Google Documents, etc. Within Google Drive, common online editing within a group becomes possible. Google Calendar is automatically connected to Garoon’s Calendar, and sharing within the group is possible.

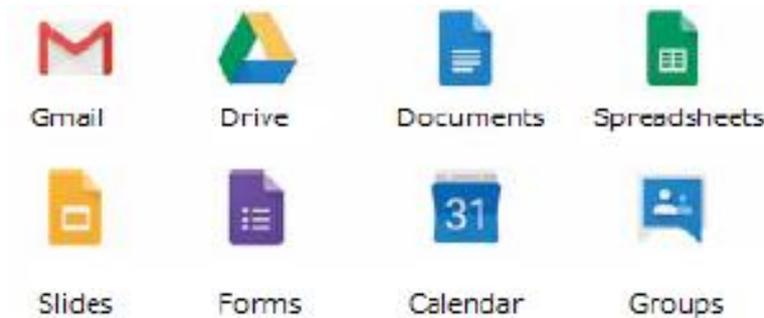


Figure 2. Services available from GSuite (Planned)

### 3) About turning the virtual server groups into hybrid clouds:

For this system update, many of the task related AP systems are temporarily moved to Amazon Web Service's AWS (IaaS: server loan). In addition, important data such as "my number" will be stored inside the university's data center. Therefore, it is a hybrid cloud configuration that combines external cloud and on-premises. Because the core business systems such as the personnel salary, financial accounting, education information and so on are in many ways connected to the AP system, we plan to move it sequentially from December 2018 to January 2019. Other AP systems are to be moved in November 2018. In order to prevent these transfer from interfering with regular working tasks, we are working with each department that is in charge with a service originally, so please be understanding and cooperative.

Also, when using the external Cloud, after considering the country risk, AWS was limited to data centers use which are installed in Japan and between Kyoto University and the AWS the network communication is done by encryption (VPN), each server having a private IP address and therefore from the point of view of information security it will not change from the conventional on-premises environment, so there is no need to worry about that.

#### ■ Final comments

As it has been explained so far, the business service will greatly change this year. The groupware and faculty&staff portal will not change that much from the functional point of view, but the screen design and the usage will change. KUMail's function will not change from the present ones. I hope that from the point of view of the service, the convenience will be greatly improved by using G Suite etc. Moreover, in order to avoid the confusion, we will gradually increase the service menu. We plan to carry out the data migration and the switching carefully by giving it sufficient margin. Details about the migration schedule etc. will be announced soon.

As we proceed to the migration to a new system, which may be a burden for the users, we appreciate your continued understanding and cooperation.

(Yasuhiro Nagai: IIMC Professor of the IT Planning Office (Director of the Electronic Bureau))



This is the service that you may have seen often recently (you should have!).  
For the people who checked and saw: 「For alumni...well, it does not matter」  
First of all, let me solve the misunderstanding. For this service, the truth is that people  
belonging to the faculty& staff are also eligible.

■ People who can use the KUON Service:

- \*regular students, regular graduates/ graduates from the graduate school
- \*faculty&staff (full-time/part-time) (including people who retired)
- \*Others than the above belonging to the Kyoto University Alumni Association

Let's stop complaining about the naming such as 「Just by seeing the name it's  
impossible to understand... 」 etc. and go forward with it.

Now, as the target is clear, we will explain about the essential services.

■ What is KUON?

It is an abbreviation from “Kyoto University One Network”.

We thought of it in the following way: from the current student to the people who left  
the university, becoming as one by having a connection with Kyoto University, always  
feeling the university as a familiar presence.

■ What can be done with KUON?



More benefits will be added gradually in the future. (It's true!)

So, on today's special occasion, let us show you the new benefits that were decided!

Benefits to be introduced in the future:

- \*Koshima Observatory (Koshima Japanese monkey observation party) Invitation
  - \*Maizuru fisheries laboratory Investigation Ship (Ryoku-yo-maru) Invitation to board the ship
  - \*Raku-yu Kaikan Restaurant (Konoe Latin) Discount offers
  - \*Tokyu Hotels -Invitation for overnight stays at the hotel
- ...it's too much to write here! (Don't you think so? It's true!)

As soon as they it will be decided, we will timely update the details on the benefits and the event information etc. so please register and check from "my page"!

■ Registration method:

You can register from the search button or by using the QR code.

\* Cool Information: Lifelong E-mail Service \*



This is a service that you should also be familiar with.

Actually, using this lifelong e-mail service together with KUON may be quite convenient.

For KUON, the registered e-mail address will be the login ID also. So, if you register using individual or the workplace e-mail, when the address or the workplace changes, the e-mail doesn't get to you anymore. When you come to think of it, you could also forget the address that you registered yourself with. (This happens a lot. Every year more than 100 people fall into this trap.)

**That is where the lifelong e-mail service appears!**

By setting the forwarding address, as it is named, it will be granted to you for your whole life. So, if you set your lifelong e-mail address to KUON's login ID, the login ID will not change even if the individual address or the workplace address changes. Moreover, you can set up to 10 forwarding addresses, so generally you will receive the notifications without any problems.

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(General Affairs Department-External Affairs Division-General Affairs/Team for Alumni)

[Service introduction]

**We started the trial version of the “contents delivery service” for all members-** page 8

At the IIMC we started the trial version of the service for distributing contents to all students, faculty and staff called “kubar”: Kyoto University Buffet ARea (it also means distribute in Japanese). This service offers the distribution of the freely usable contents, software etc. for the students, faculty and staff through the use of the ECS-ID or SPS-ID to authenticate for the contents check and download.

■ Important points

● In order to access the contents provided by this service, authentication by ECS-ID or SPS-ID is necessary.

● When accessing the contents, the university e-mail address is recorded in the access log.

● The university e-mail address recorded in the access log may be used by the contents provider to notify the user about the update information etc.

■ Access log

When accessing the contents provided by this service, “university e-mail address, access date and time, access source IP address, access file “ are recorded as the access log. This information can be provided to contents providers and can be used to notify users when updating the contents.

■ Contents offered:

● Information Ethics Digital Video

● Safety and health workshops for the newly appointed faculty and staff as well as for new students from Uji working area in 2018.

■ Application for content distribution

Please contact us by e-mail if you would like to provide contents for all members using this service. E-mail: [support@iimc.kyoto-u.ac.jp](mailto:support@iimc.kyoto-u.ac.jp)

(Atsumi Noritoshi: Assistant Professor of the IIMC IT Planning Office/ System Design Department)

[Service introduction]

In December 2017 Kyoto University acquired the membership for ORCID (<http://orcid.org>). In this article, besides the explanation of what ORCID really is, I will summarize the current situation of ORCID at Kyoto University along with the future prospects coming from the membership acquisition.

■ What is ORCID?

ORCID (<http://orcid.org>) is an organization that is supporting the researchers all over the world by giving them permanent and unique digital IDs so that clarifying the attributions related to paper submissions and research grants, but also the personal performance record is correctly recognized; it is also the ID used for this task. For digital documents such as academic papers, a unique digital ID called Digital Object Identifier (DOI) has been granted and widely distributed, but ORCID is a system for granting researchers digital IDs in a corresponding manner. Already several academic publishers collect the author's ORCID at the time of submitting a paper. By associating this with the published document DOI, the attributions of the thesis which was necessary for conventional name identification is cleared. This is an extremely effective method, especially when it is difficult to identify the same person due to renaming or transfers.

In addition, on [orcid.org](http://orcid.org) there is a function allowing the disclosure of the personal career, information on books and articles as web pages, and the awareness of the researcher's standard resume is increasing. To be more precise, the following contents can be written.

- Educational background
- Employment history
- Research grants received
- Articles etc.
- Researcher's individual web page

Although these information can be registered as a self-report done by the researchers, by giving electronic approval by the researchers, it becomes possible to write information on individual ORCID web pages directly by the universities or the

publishers etc. The merits described below due to delegating the information description to “the organization that generated the information”.

●The labor done to register by the researcher himself greatly reduces while accurate information is stated together with the DOI etc.

●The information stated on the performance record on ORCID is individually recorded regarding to “who wrote the information”. Therefore, when it comes to the researcher’s background and books, the research institution or the publisher will be able to electronically prove it.

In addition, regarding the information disclosure of individual researchers, ORCID positions itself so as to give the highest self-control right to the researcher. It is now possible to set the disclosure level to “anyone”, “trusted institutions (the researcher himself gave his approval)” or private for individual items of the research information (in the case of the articles, one by one).

#### ■ Usage status of ORCID at Kyoto University

At the universities and research institutes from both Japan and overseas the number of examples that approve ORCID’s official researcher information and researcher profile information is increasing. In addition, faculty members and students belonging to Kyoto University have also been requested to obtain ORCID IDs when submitting papers, making the number of people registering with ORCID to increase. As of May 2018, there are more than 3000 people who registered using their e-mail address of “@kyoto-u.ac.jp” as a contact for ORCID. Under these circumstances, using ORCID as a trial version is done by the IIMC and the Library Organization etc.

By incorporating the publication information described in ORCID into the Researchmap (<http://researchmap.jp/>) on the educational research activity database (faculty DB, <http://kyouindb.iimc.kyoto-u.ac.jp>) those contents will also be described in the faculty DB. Moreover, since June 2017 we have set up items that describe ORCID and also a link to ORCID’s personal page.

In addition, Kyoto University acquired the ORCID membership in December 2017. By acquiring the membership, Kyoto University is connected to various information systems of ORCID electronically, allowing the things mentioned below to be achieved.

1. Kyoto University can register information and it will appear on the ORCID web page of the individual after his approval.

2. Kyoto University, as “public trustworthy institution”, can acquire from the ORCID

web page approved by individuals the information set to as “public to trustworthy institutions”.

### 3. ORCID can be used as authentication provider.

By using the function “1”, the Library Organization and the IIMC have started to try to register their own information to the ORCID library. The Library Organization already owns one of the world’s large academic repositories called KURENAI (<https://repository.kulib.kyoto-u.ac.jp/>). It has included a large collection of original contents by Kyoto University, including bulletin collections edited by the departments. We plan to distribute these contents on the global digital ID infrastructure centered on ORCID and DOI by linking the DOI of these contents and ORCID, resulting in the content authorship and the content itself to be transferred there. The IIMC is considering including in ORCID the employment history information at Kyoto University and the individual introduction page of the faculty DB on the educational research activity DB, the link to the personal DB etc. and basic information as a researcher. In fact, both the Library Organization and the IIMC experimentally conducted the information registration to ORCID and are proceeding to fully check the cooperation with the system. By actively disseminating the contents held by Kyoto University, we aim to improve the presence of the researchers of Kyoto University and of Kyoto University itself.

The other mentioned functions “2” and “3” are considered to be useful mainly for building relationships with researchers from outside of Kyoto University. As an international research institute, Kyoto University accepts and collaborates with numerous researchers from Japan and abroad. By using ORCID as an authentication provider, there is a possibility that the authentication and the authorization process of the information system in collaborative research can be simplified. Also, if researchers approve it, Kyoto University can access information “available only for trusted institutions” as an ORCID member institution, accept and use them as materials for the selection process. In addition, by using the same method, it will be possible to keep track of the collaborative research results at Kyoto University, career etc. continuously.

Permanent identifiers for people and items such as ORCID and DOI etc. are expected to increase in importance in the future as academia expansion and liquidation progresses.

(Aoki Takaaki: Chief of the Research Support Division of the IIMC)

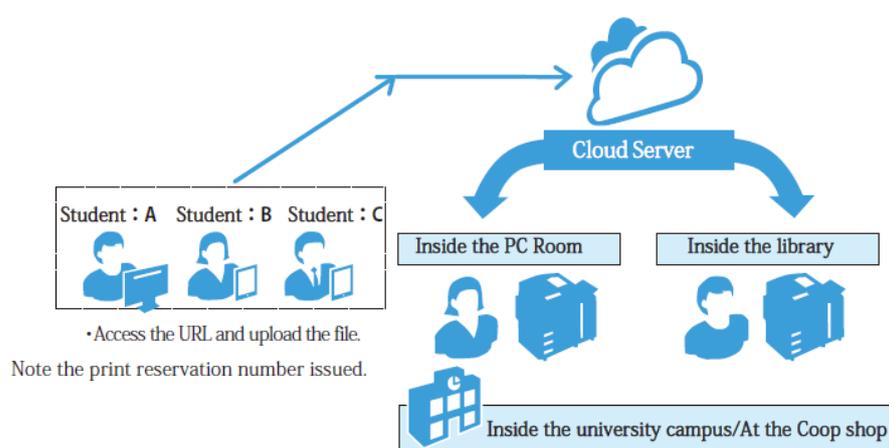
[Service introduction]

### Cloud On-Demand Print (CODP) use started-page11-12

The Kyoto University Cooperative Association (hereinafter referred to as Kyodai Coop) received in March 2018 received requests from each department's faculty affairs and attached libraries to cooperate with Fuji Xerox Corporation (hereinafter referred to as Fuji Xerox) in order to start a printing service via Cloud.

#### ■ When and how to use it

You can upload reports and seminars' presentation materials from home to Cloud and print them out after coming to the university. You can upload printing jobs from the campus common space and cafeteria and print them. Printing environments on multiple occasions, such as printing jobs by sharing between students etc. are supported.



For either monochrome or color type, the price does not change with the printed paper size, which can be from B5 to A3. Similar net-print services are also available at convenience stores in the neighborhood, but the prices of CODP done within the university campus are set relatively low. Best of all, it is convenient for you to print at a campus location that is your place of study and research.

#### ■ Student ID Card=It offers a discount for Coop Membership ID's IC Card

The charging devices of the CODP machines placed at each location are of the following 3 types: conventional copy card, cash (coin dispenser) and the student ID card which is also the Co-op Membership ID's ID Card (hereinafter referred to as IC Card) which can use the IC Card Cashier. The IC Card use can be limited to the Kyoto University members (people receiving student cards/staff cards from the university). Because it was requested that the CODP machines etc. of the satellite classrooms should be limited to the use of IC cards, they were developed accordingly.

By using the electronic money of the IC card, it is possible to set the charging unit to 1yen. At the Co-op we plan to consider the change of price in the future so as to reduce,

even just for a small extent, the financial burden of the students and to support their studies and research.



Main Library 3F Information terminal area

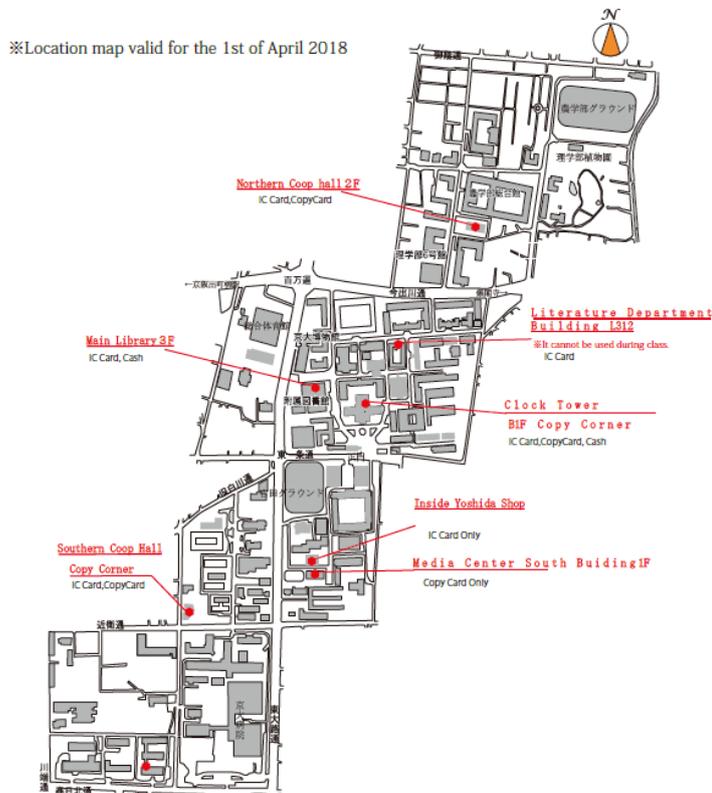


Clock Tower Memorial Hall B1F Copy Corner

As of the 1st of April, in 8 different locations on campus there are 9 different units operation. (Check the map for the locations!)

We actively try to respond to the requests from each of the undergraduate departments, such as the one mentioning the wish to have the CODP machines near the common spaces and close to the spaces where the students work, and we would like to cooperate to further improve the convenience of the campus life.

(Cloud On Demand Print)



(Information Environment Support Center)

[Introduction] **Introduction of the Course for Graduates “Information literacy foundation for academic research”** -page13-

Starting from 2018, at ILAS we have started the graduate school wide and the cross-sectional education. Through this initiative we reorganized the conventional cross-disciplinary education program so that the courses suitable for students belonging to other research institutes can be registered among the courses of their own research department as “graduate cross-disciplinary education subjects”. Moreover, all the courses that make up a common foundation for all graduate students was set up as “graduate school common education courses” and classes consisting of 3 fields are offered as follows: “social adaptation field”, “information& technical science field” and “communication field”. [1]

The graduate course called “information literacy basics for academic research” has just been established as a subject in the field of information& technical science, being implemented as 4 classes having 0.5 unit subjects and during this year we have started it in the first semester twice in Yoshida Campus and once in Katsura Campus. Classes are carried out with the cooperation of the attached libraries and the academic information media center. Also, Prof. Saito Yasuki from the IIMC cooperated to create the ICT-related lesson content design and contents.

Topics related to the library use are designed for the academic research use of the library dedicated to graduate students, apart from the use of electronic journals including the introduction of citation databases, also open access and DOI, ORCID etc. which are contents related to information transmission.

When it comes to the utilization of ICT, graduate students are experiencing the use of university’s ICT at the undergraduate level, such as preparing for the graduate thesis, the use of ICT for the laboratories and research activities and the lecture support activities as TA are the kind of topics that we deal with. It is aimed for the introduction of the university’s certification and the utilization of the university’s information infrastructure such as KUINS-II, III, Air, VPN and KUINS, which are separate services according to different purposes. Next, we involved in the preliminary issues on the theme of information ethics and we used 1 class to explain it. Moreover, in order to understand the contents of the mentioned topics, we have a prerequisite of taking a lecture on basic knowledge of the information network.

I would be pleased if this subject could be useful at least a little bit for the study within the graduate schools where academic research is centered.

(Kita Hajime-ILAS (Director of the IIMC))

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[1] ILAS, Graduate School Wide and Cross-sectional Education

<http://www.z.k.kyoto-u.ac.jp/for-internal/daigakuin> (May 28, 2018 access)

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[Please be careful!] **A large amount of account information including Kyoto University's e-mail addresses has been released** -page 14-

This year there were several news reports about e-mail addresses and password-like character strings releases on the internet. It is assumed that the account information disclosed this time was mainly collected and listed up through leaks from the services on the web.

At our university we are also receiving information on the account information list of our university domain published from outside of the institution.

At our university we post warnings on the HP of the IIMC and at the same time we contact individually the e-mail addresses that are shown on the list.

This is valid for everyone, so instead of using the same password all over again, try to take measures such as setting different passwords for different services.

Also, when analyzing a password-like character string from the list, it is commonly seen that the passwords there are not complying with the guidelines for passwords of our university because they either contain only numbers or they are short etc. Please check once again the password guidelines of our university and set strong passwords on daily basis.

■Kyoto University password guidelines (excerpt)

2.2 Character string to be used as a password

The password character string set by the user etc. must satisfy all of the following conditions:

- Must have at least 8 characters.
- It should include at least 1 character from each of the following Roman letters, numbers and symbol character sets a) to c), while d) may also be added.
  - a) Uppercase capital letters (A to Z)
  - b) Lowercase capital letters (a to z)
  - c) Numbers (0 to 9)
  - d) Symbols (@ ! # \$ % & = - + \* / . , : ; [ ] | \_)

Also, the following character strings should not be used as passwords because they can be easily guessed:

- Character strings(name, user ID etc.) easy to be guessed from the account information of users etc.
- The ones mentioned above, but ordered differently, the simple addition of numbers and symbols to the ones mentioned above.
- Dictionary headwords
- Name of celebrities etc. or proper nouns

(Planning and Information Department/ Information Infrastructure Division- Security Measures Team)

1. Report on the Institutional Organization Guidance Implementation

■ Purpose:

In order to enable newly enrolled people to smoothly start their new study and research life at Kyoto University, the IIMC, Library and also the Environment, Safety and Health Organizations cooperate to give an institutional guidance to them. For this academic year, we will report on the following schedule.

Target	Date and time of the event	Venue	Number of attendees
New bachelor students	April 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> / 14:00-16:30	Yoshida South Campus, Yoshida South, Building No.4	2391 people
For graduate students	April 4 <sup>th</sup> , 5 <sup>th</sup> , 6 <sup>th</sup> / 9:30-12:00	Yoshida South Campus, ILAS Building, 3F	980 people
For foreign students	April 17 <sup>th</sup> / 16:30-18:30	Yoshida South Campus, ILAS Building, 3F	90 people

■ Impressions of the participants (partly introduced):

- To take responsibility for defending your information without thinking it is something personal
- Do not do extreme things on SNS
- Do not touch if you think it is dangerous
- Security is on our own shoulders
- I will not panic
- Consult in the end
- Have a solid sense of security, such as not using the same password all over again.
- Taking e-Learning
- It's important that you protect your information
- There was an answer that gave an understanding of the content of the workshops, such as hard passwords to receive e - learning. On the other hand, there are answers as shown below, where people didn't understand well:
- I did not understand well. The words were difficult.
- I want it to be more concise as the story was long.
- Since each explanation was a little too long, I saw many people who lost their concentration. I wanted you to explain a little more to the point.

Also, on the facility side of the venue,

- The voice of the speaker was not loud enough overall and it was difficult to understand. It was too hard to cool the room.
- I felt that there were a lot of professional stories.
- Since the content was the same as e-Learning, I thought that it was OK to do either one.
- Since there are guidance presentations having similar contents that are held in advance in each faculty so we would like to make improvements.

There were opinions such as these. We would like to make improvements about it.

## 2. Introduction of the Institutional Organization Guidance for the students entering the university in the fall semester

### ■ Target, date and time:

Target: graduate students, subject registering students, research students, auditors, international students etc.

Date: for Japanese is the 4<sup>th</sup> of October (Thursday) from 16:30 to 18:30

for English is the 5<sup>th</sup> of October (Friday) from 16:30 to 18:30.

Venue: ILAS Building 3F (Yoshida South Campus)

### ■ Content of the guidance:

[Information environment: network use and security]

Comprehensive information about what is the Kyoto University's information environment, what you can do with it, what you should be careful about when using it, things you should be careful about when using the student account (ECS-ID) for the information environment etc.

[Use of the library]

We will tell you about the proper use and things to be careful about when using the electronic resources offered by the library such as electronic journals, databases, e-books etc. as well as general aspects of the library use.

[Environment, Safety and Health]

You will be informed about the trends and countermeasures regarding accidents that take place inside the university so that your academic life will not be damaged by accidents and health issues. Also, you will be informed about the Kyoto University's efforts to ensure an ecological environment.

[Cardiopulmonary resuscitation/ AED course]

You will experience doing chest compressions and AED using simple teaching materials (named Appa-kun) and you will learn how to save lives using cardiopulmonary resuscitation.

In the last couple of years, I often see the word “IoT” on the news etc. Also, the security measures for IoT are among the raised topics. This IoT, which stands for the Internet of Things, is something that’s not understood by many people. This time I will explain what this IoT is like by giving concrete examples and also about the importance of IoT’s security measures.

**In the first place, what is the IoT?**

I think that when it comes to the devices connected to the information network, the first things that come to mind are the network devices (routers and switching hubs etc.), servers, so called PCs, recently devices called terminals such as smartphones and tablets etc. Certainly, even when it comes to the type of equipment connected to KUINS-III at our university, the amount of PCs is increasing overwhelmingly, being no different from the mainstream.

However, particularly in laboratories doing experiments and on medical sites etc. devices for measurement and inspection are connected to the information network for a long time, “things” that are connected to the information network such as remote conference systems, complex printing machines, electronic blackboards, automatic lending machines for books, building facilities such as building security cameras and entry systems installed for each building etc. If we look outside the campus, things that use electronic money to pay such as the automatic ticket gates for trains, convenience stores’ cash registers etc. security cameras on the street corners are connected to the information network; according to the household, TVs and video recorders, speakers, even lights and refrigerators are connected to the information network. IoT is a generic name for the “things” connected to such information networks.

When various “things” get connected to the information network, information security becomes a problem. Being connected to the information network means that also these “things” can be accessed from the internet side. I believe that all of you perform security updates on daily basis. I think that by installing antivirus software, you prepare for virus infections. Then, what do you do against the “things”?

Image leakage due to hijacking the security cameras is frequently reported. A few years ago, a website where thousands of images from security cameras could be seen was publicly released and was featured in the news. It is said that many of the aimed devices are used without changing the password from the initial settings. TV conference systems and wireless LAN routers aimed by the virus are infected; from the infected device DDoS attack done by the Mirai virus is often reported. It is said that using a

common ID that the manufacturer set in advance using telnet.

Unfortunately, the manufacturer's security update is not as fast as for PCs when it comes to "things" that are connected to the information network. For some devices, it may not be provided at all. Also, the lifespans of such "things" may be longer than the ones for PCs and meanwhile the maker's support may end, people tend to keep using for a long time unless it breaks down.

At our university, in order to prevent security incidents coming from "things", please take the following measures when connecting to the information network.

1. Always change the password when you install it.
2. Upgrade the firmware (something like the OS) to the latest version you can possibly upgrade it to. If there is some automatic update function, apply it. Do not connect to information networks "things" for which the customer support service ended.
3. Stop as much as possible the management entrance for such things as web pages etc.
4. Install in KUINS-III, not in the global network KUINS-II.

In the future it is assumed that even a larger variation of "things" will be connected to the information network. "Things" that are hard to conceive now may be connected and possibly become useful to use. When that time comes, please remember this so as to have a happy IoT life. "Convenience and danger come hand in hand".

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