Development of a System of Strategic Research Administration at Kyoto University

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Abstract: *In 2004, all national universities in Japan, which had previously been legally subordinate to the Ministry of Education, Culture, Sports, Science and Technology (MEXT), became separate National University Corporations. With this change, the importance of securing competitive funding increased significantly, and university researchers have had to devote more time to non-research burdens related to obtaining competitive funds including project management and public engagement. In order to reduce the burden for researchers in Japan, MEXT launched a support program in 2011 called the "System to Develop and Secure University Research Administrators (URA)." Supported by the program, Kyoto University established The Kyoto University Research Administration Office (KURA) in April 2012 as a support organization to help with planning of research projects, obtaining research funding, project execution, and public engagement. In this article, the strategic planning to implement the URA program at Kyoto University shall be described within the historical context of how the Japanese government decided to launch this support initiative.*

Keywords: *URAs in Japan, strategic management of URAs, research university, pre-award, post-award, public engagement*

Introduction

The past three years has seen a rapid growth in the number of university research administrators (URAs) in Japan. Nationwide there are now more than 300 officially hired in this category. The Japanese government's decision to launch the URA project dates back to November 2009, when the Democratic Party of Japan, in power at the time, executed an unprecedented budget screening process for fiscal 2010. This screening was open to the public and televised live, resulting in major cuts in science and technology budgets, especially for the basic science. The criticism was leveled that investment in basic science was not able to show concrete results for the money spent to date. Basic science was an easy target for a government strongly insistent on a demonstration of the necessity for such research.

To address these concerns, on November 24, 2009, nine research intensive universities (Hokkaido, Tohoku, Tokyo, Nagoya, Kyoto, Osaka, Kyushu, Waseda, and Keio) announced a joint statement "Concerns about the future of education and research in universities" in which they argued that a dramatic decrease in the education and research budget would be extremely harmful for the future of Japan (RU11, 2009). Successively, on March 19, 2010, another joint statement "strengthening research infrastructure and development of human resources in universities as part of the nation's growth strategy" was published (RU11, 2010). Notably, this statement clearly indicated the necessity for designated "research administrators" able to support research and facilitate collaboration among researchers. Later, the University of Tsukuba and Tokyo Institute of Technology joined this consortium and a group of eleven universities formed the influential academic consortium "RU11" (http://www.ru11.jp/eng/).

Following this joint statement proposing a novel system of university research administration, the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) launched such a program in FY2011. Kyoto University applied to the program and five universities including Kyoto were appointed as model universities. In FY2012, ten universities were additionally appointed and fifteen universities in total started implementing the URA system.

Initiation of the KURA office

In January 2012, a task force at Kyoto University prepared a master plan to introduce the URA system and scheduled recruitment interviews. In April, eight total (three as senior administrators) were hired by the new central administration office of Kyoto University Research Administration, called KURA (http://www.kura.kyoto-u.ac.jp/en/).

Prior to the introduction of KURA, interaction between researchers and administrative staff mostly occurred at a single point at the end—to complete paperwork. This is because, in general, administrative staff did not have strong research experience, so from the researcher's view point, administrative staff did not have the expertise that researchers would want to consult with about research-related issues. At KURA office there was an explicit goal of hiring administrators with a research background. Thus, two senior URAs had worked for Kyoto University as professors in civil engineering and area studies, respectively; one senior URA with Ph.D. in pharmacy had worked as a director of research laboratories at a pharmaceutical company; and the remainder held Ph.D. such that, their specialties covered a wide range of research disciplines such as system neuroscience, developmental biology, agricultural studies, psychology, informatics, energy science, research ethics, science communication. The existing administrative system worked mostly complimentarily with KURA to support the research faculty. KURA staff performed both research development and general administrative tasks depending on the workload assigned to each member, whereas research development lay outside the existing administrative staffs' charge. The fact that all the KURA members had in depth experience in research was an important feature which distinguished the KURA from the administrative offices who had been organized at Kyoto University, in the sense that the KURA staffs work "closer" to researchers. It also facilitated communication between researchers and staff at the KURA office (Figure 1)
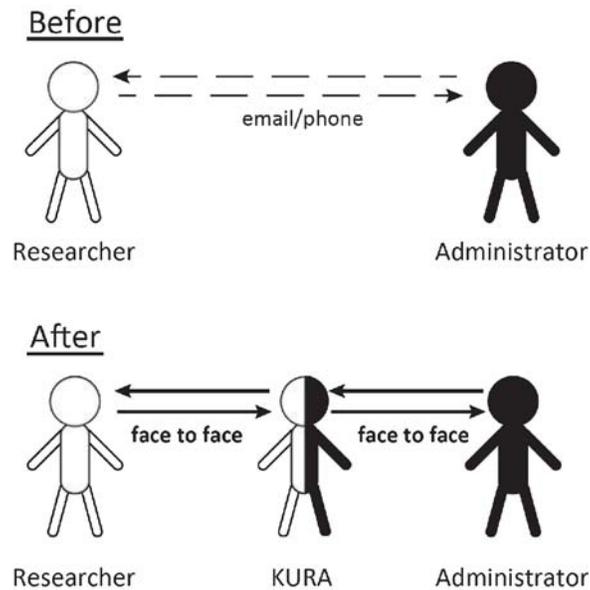
Figure 1. Before and after introduction of KURA.

Before the introduction of KURA, the primary communication tool was either email or phone call and the communication occurred mainly when some paperwork has to be done. After the introduction of KURA, in which many staffs have Ph.D. degree with research experiences, KURA staffs intended to increase opportunities to meet researchers directly so that KURA can correctly understand the demands on the researchers' side. This relationship happens because KURA staffs can understand research itself based on their academic specialties. Similarly, face-to-face communication is considered essential to establish good relationships with other administrators who had already been hired.

Job expectations for Japanese URAs depend greatly on the needs of their hiring universities, which are in turn strongly influenced by the strategic direction of the university as set by the executive board, including the president. Typical job functions roughly fall into three categories: support for pre-award, post-award, and academia-industry collaboration. KURA has been tasked with enriching the research environment, with an emphasis on pre-award and public engagement. As pre-award activities, KURA collects the information on the available research grants and distributes this information to the faculty at Kyoto University. KURA also provides grant-writing support for researchers at Kyoto University who apply for the research funding predominantly to Japanese government agencies. To increase public engagements, KURA provides the researchers with a variety of opportunities to disseminate their research output to the public through seminars, short reports in booklets and web homepages managed by KURA. Each staff member is expected to take part in the different kinds of work in order to learn various skills as URAs. The office's vision is "To contribute to the generation of world-class knowledge by collaborating with researchers in accordance with Kyoto University's mission, and to be a pioneering model

for university research administration in Japan." KURA's logotype was created by visiting professor Akio Okumura of the University's Academic Center for Computing and Media Studies (http://www.kura.kyoto-u.ac.jp/en/about/logo.php; Figure 2).

Figure 2. KURA's logotype.

Representative Activities

KURA's major activities can be categorized into three areas: pre-award, post-award, and public engagement. Compared to URAs in the United States, it is rather unique for KURA to include public engagement activities in its annual planning. Representative examples of such activities are described below.

Grants-in-Aid for Scientific Research (KAKENHI)

"Grants-in-Aid for Scientific Research", called KAKENHI in Japanese, are the most well-known category of research funding (Grants-in-Aid for Scientific Research). The program is managed by the Japan Society for the Promotion of Science (JSPS), and in FY2012 JSPS's research funding budget totaled 256.6 billion yen, more than half of the total budget for all available competitive funds in Japan. KAKENHI is described by JSPS as "curiosity-driven research," meaning that research proposals are researcher-oriented. In FY2013 the number of applications was 92,604, of which 25,825 were funded (27.9%, cf. JSPS Brochure 2013–2014).

Under these circumstances, it is very important for Kyoto University researchers to obtain KAKENHI funding. To increase the acceptance rate, the KURA office provides application review support with respect to readability and conforming with the strict requirements of the screening process. Considering the large number of researchers at Kyoto University, this support is augmented with volunteers including professors emeritus, and is limited to researchers who submit application drafts three months in advance of the official JSPS deadline.

To increase awareness among faculty of the need for high quality proposals, KURA has also published a booklet that explains key points for the preparation of the application form (Proposal for Grant-in-Aid) for KAKENHI. This booklet has been extremely well received by University faculty.

Enhancing Research and Education Collaboration with Foreign Universities

Kyoto University has a long history of Southeast Asian studies, including the Center for Southeast Asian Studies (CSEAS) that has conducted interdisciplinary research in the region for 50 years. To continue to increase the University's strong connections with many countries

in the region, Kyoto University has been pursuing cooperation in the field of engineering with major technological universities in Myanmar and the Myanmar Engineering Society (MES) in collaboration with the Japan International Cooperation Agency (JICA). To that end, one new project was prepared in Myanmar which met the needs of establishing a firm foundation for civil engineering, with the KURA office playing an important role in bringing together stakeholders in both Myanmar and Japan.

Due to such efforts, the Japan International Cooperation Agency (JICA) has requested Kyoto University provide educational support for civil engineering in Myanmar. In August 2013, as an example of such support, around 25 staff were sent from the University and from companies in Japan to give lectures at Yangon Technological University (YTU) and Mandalay Technological University (MTU).

Clearly, maintaining friendly relations at national and also university levels is essential to facilitate successful international collaboration. On these grounds, Kyoto University promotes international joint symposia with universities in many foreign countries. Since the establishment of KURA, joint symposia have been held together with the University of Bristol (UK), ETH Zurich, University of Zurich, EPFL (Switzerland), and the National Taiwan University (Taiwan), with KURA providing assistance for both the overall program and with the coordination of scientific sessions.

Public Engagement: Kyoto University Academic Day

In recent years, funding agencies such as The Ministry of Education, Culture, Sports, Science and Technology (MEXT) have begun requesting that their recipients widely disseminate the achievements of their projects. A specific goal of MEXT reinforces that expectation that dissemination and publicizing the research performance and achievements are important for promoting the use of the research outcomes to society and for deepening public understanding of the Grants-in-Aid for Scientific Research program. Researchers tend to feel that presenting their latest findings in scientific meetings is sufficient for such a purpose, but there is in fact value in going beyond the comfort zone of similarly-minded researchers, to speak to the lay audience which likely does not initially have sufficient knowledge to understand such research subjects.

To enhance these efforts, KURA provides researchers with a variety of opportunities to disseminate their research output to the public. One large-scale annual event, Kyoto University Academic Day, promotes face-to-face communication between researchers and the general public, with approximately two hundred researchers presenting their findings and around one thousand participating from surrounding communities.

Another example of KURA public engagement is Research Activities, a quarterly publication in English introducing both the history of Kyoto University and current topics in leading-edge research. Recent issues have featured articles on topics such as women researchers at the University, and the University's international relations endeavors (Kyoto University Research Activities).

Strategic Steps to Implement the URA Program at Kyoto University

Task-Sharing within the University

Prior to KURA's formation, URA-like functions were being performed in part by specialized administrators hired by the University but not called URAs. For such employees, the abrupt introduction of the URA system led to some confusion about how to divide tasks with the newly-hired URAs, even though the introduction of the URA system had been officially approved by the University.

To increase clarity, KURA has actively reached out to URA-like administrators, such as the organization of a Kyoto University Research Administration Seminar for which all employees involved in URA-related work are invited. Participants at the meetings discuss a variety of topics presented by invited speakers, sharing ideas about how to improve the University's research environment. This seminar plays an important role in facilitating mutual understanding between URAs and their administrative colleagues, related to expected roles, understanding differences, and finding commonalities. The opportunity to establish good relations through such discussions leads to interacting with each other directly to discuss and solve common problems.

The organizational structure of the university has KURA situated between the researchers and the existing administrative departments such as Research and International Affairs Department (Figure 3). KURA functions as the first contact point for researchers. Thus, it allows for discussion with faculty for research directions with future funding opportunities, whereas the existing administrative sections are more directly involved with the paperwork which has to be authorized by the university.
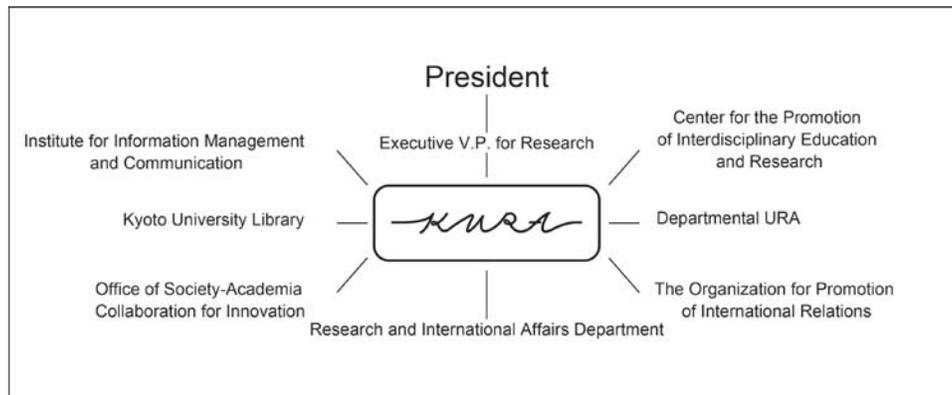

Figure 3. Organization chart at Kyoto University.
Relationships between major organizations and KURA are described. Among the administrative departments, close collaboration with Research and International Affairs Department has been performed. Kyoto University has also introduced departmental URA system to form a URA network.

For the organizations and administrative departments, KURA also functions as a friendly co-worker who provides an innovative idea and professional support functions. For example, with a request from the Kyoto University Library to increase the number of visitors who use a new learning commons, KURA developed an ongoing collaboration to organize a casual workshop to specifically facilitate interaction with young researchers and graduate students. As another example, a few KURA members who have strong professional skills in Information and Communication Technology have been collaborating with Institute for Information Management & Communication to create a university-wide database of research activities. Though the specific roles of KURA varies depending on the kinds of request from the organizations and tasks that need to be solved, KURA office is the office who listens to existing departments and organizational units to survey the demands inside the university for making the research environment more productive.

Increasing Capacity

With nearly 3,000 academic staff engaged in research across three campuses at Yoshida, Katsura, and Uji, KURA's aim to support researchers across the University was limited by what could be offered by its original eight members. In addition, KURA was tasked with additional responsibilities to work closely with various offices in the administrative headquarters of the University, resulting in an immediate need to augment the number of URAs to provide thorough support for researchers. Thus, in July 2012, Kyoto University launched the Kyoto University URA Network Project, in which new URAs were employed by individual departments and assigned to eight regions on the three campuses. As of July 1, 2014, 21 departmental URAs are working in these regions (Figure 3).

Making Kura Visible to Researchers

The formation of KURA was so rapid that efforts have been made to actively introduce the office not only to University administrators, but to faculty and researchers across the University. KURA staff has taken an active role by visiting faculty meetings at individual departments in order to briefly explain the roles of the office. Such opportunities have been the first step toward improving recognition of the office among faculty members.

KURA has also taken the initiative to join many key activities within university, including meetings to review research proposal presentations for obtaining external funding. At these reviews, representatives of proposed projects present their plans to faculty volunteers and KURA staff, who then give feedback related to clarity of the presentation materials and conformity to the requirements of the funding agencies. Providing detailed advice serves the purpose of giving faculty members a positive impression of KURA's role in the funding process.

Concluding Remark—Looking Forward

Kyoto University introduced its URA system as an attempt to improve the environment for research. KURA, the URA office that was established in April 2012 with originally only eight staff, took responsibility for implementing this system within the University. It created a firm

basis for itself within the university by demonstrating its activities to faculty and staff, and also making blueprints for mechanisms by which faculty could receive URA support regardless of their location on any of the three University campuses.

To augment this solid foundation, the effectiveness of this support system has to be further developed to maximize the advantages of the network of KURA and departmental URAs. Cooperation among all URAs is essential to overcome barriers between departments that tend to hinder progress at many large educational institutions worldwide. In addition, collaboration with existing URA-like administrators must be accelerated to increase mutual understanding and provide better service to end users.

In fiscal 2013, MEXT launched a new program to enhance the research activities in research-intensive universities. The proposal from Kyoto University was accepted, and new funding enabled Kyoto University to employ an additional 20 URAs in KURA, beginning in April 2014. This dramatic increase has necessitated reorganization within KURA, creating four new functional sections. FY2014 has thus become a special year for KURA and for the URA network, boldly moving forward to even further enhance the research environment of Kyoto University.

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