

<UK – Japan Higher Education Symposium>

“The Relationship between Public Engagement, Research Impact and the Innovation Process”

Wednesday 9 October, 14:00-18:00

Summary report



■ Opening remarks ■

Jeff Streeeter, director of the British Council Japan, described how the British Council had commemorated its 60th year of activities in Japan this year, which was also the 150th anniversary of the voyage of the “Choshu Five” to the United Kingdom. He went on to discuss the need for universities to engage with the public in order to foster a sense of trust in universities, and the need for researchers from universities in Japan, the UK and countries all over the world to use the results of their research when discovering solutions to issues faced by humanity the world over, and analyzing real data as a crucial component for resolving such global issues.

■ Keynote lectures ■



“The increasing importance of the role of universities in society”

Prof. Sir Steve Smith, the Vice-Chancellor and Chief Executive of the University of Exeter, stated in his introduction that universities in many areas are facing a situation in which they are being forced to search for new policies amidst cuts to financial assistance by many governments, and that while this poses a problem it also represents a chance to break free from traditional ways of working. He went on to note that as universities are the powerhouses of their societies, and economies and educational systems are crucial components for ensuring the success of a nation’s knowledge economy, it is vital that governments provide continuous investment in higher education research and international joint research.

As he pointed out, in the 21st century “collaboration” has become one of the most important characteristics for pre-eminent universities in the top global class.

The greatest issue facing educational systems throughout the world is how to provide citizens with the education necessary to succeed and prosper in the future, in the wake of emerging new knowledge-intensive and innovation-intensive fields, which did not exist until a few years ago. Universities also need to select and concentrate research funds effectively if they are to boost their international competitiveness. Prof. Smith described in his speech how, in the UK’s new research assessment rules, the impact that research has on society will now be worth one-fifth of grading, emphasizing that going forward universities would need to transform the traditional mindset found among its academics as demonstrated by the public engagement initiatives taken by Exeter University. He concluded by stating that providing sufficient investment in universities and promoting increased collaboration was not only a way of producing greater research impacts, but also a way of discovering solutions to issues affecting humanity.

“Furthering public engagement - challenges, outcomes and future direction”

Mr. Paul Manners, director of the National Co-ordinating Centre for Public Engagement pointed out that universities needed to take the notion of public engagement seriously because they exist in an age when the *raison d’être* of universities is being challenged, and said that the most positive future for universities lay in integrating the interests of institutions of higher education with the wider public good. Regarding the question of how public engagement should be promoted, Mr. Manners stressed that the key word was “engagement,” and that engagement in which universities were involved with all the social strata and were able to successfully gauge the needs and

trends of society was really a process of dialog—in other words, a two-way process.



Mr. Manners then went on to analyze four “pressure points” which characterize those universities that are engaging successfully with the public in the UK, namely: “Trusted,” “Relevant,” “Accountable,” and “Socially responsible.” He emphasized that when universities are working to promote engagement with the public it is crucial that the middle management at such organizations be involved in the process, and that investing in training and development, clearly establishing formalized roles within universities to handle public engagement, subjecting public engagement to evaluation, and developing appropriate human resources are also crucial components for this to succeed. Mr. Manners said that with universities under pressure to change, carrots (motivations) need to be applied as well as sticks (penalties), and that it is essential to develop deeper understanding of universities’ *raison d’être* and the need for reform.

“Linking university and community - case studies in public engagement and research impact”

Prof. Don Nutbeam, the Vice-Chancellor of the University of Southampton

presented some case studies of public engagement at his university focusing on four areas. On the first, “Direct engagement with the public/press,” Prof. Nutbeam described a variety of initiatives including enabling the public to contribute to research on a rare variety of cicada, science roadshows, and online learning programs, illustrating his talk with real-life video footage including interviews. Turning to “Engagement with national government,” Prof. Nutbeam cited the case of open data, where the university had worked with the UK government to enable the release of large amounts of publicly-funded data to the general public. This then led to the creation of the Open Data Institute, which supports start-up companies generating new business opportunities from this newly available data. Regarding “Engaging with local and regional government,” the university has worked with Southampton City Council on issues such as energy use in the area. In “Engagement with industry,” Prof. Nutbeam described actual cases in which the university has generated innovations through partnerships it has formed with various large companies and small and medium enterprises (SMEs) from the United Kingdom and a variety of other countries.





He stressed that the national government of the UK is providing institutions of higher education with assistance for the process of public engagement because it is considered by both government and universities to be one of their core activities, and that universities are now implementing public engagement in a professionalized manner. There were smiles all around the venue as Prof. Nutbeam showed footage of an experiment in which a teddy bear was sent into space as part of an experiment carried out through the cooperation of physical science students and a local primary school.

■ Panel discussion ■

Prof. Tateo Arimoto, professor and director of the Science, Technology and Innovation Policy Program, National Graduate Institute for Policy Studies (GRIPS) served as a facilitator and started off by stressing the need for university reform, pointing out that “It is by undergoing change that the university system has been able to survive over its thousand-year history.” Many years ago, the Choshu Five took University College

London as their starting point for taking British culture back to Japan with them, where they founded the Imperial College of Engineering (now known as the Faculty of Engineering, University of Tokyo). They laid the foundations for a new university system that was highly acclaimed in the United Kingdom itself. So what form should universities take in the 21st century?

Emphasizing that the role now required of universities is to move beyond the mere production of knowledge and towards no-holds-barred diversification, Prof. Arimoto introduced the following remark taken from the journal *Science*: “Communities of scientists must move pre-emptively to reform their funding and management to bring them in line with the times before governments bring political pressure to bear.” Prof. Arimoto stressed that this was an important message that was applicable to universities too, and that universities and governments must forge ties with care and work to boost the value of universities for the next generation.

Following this, Dr. Miwako Doi, chief fellow of the Corporate Research & Development

Center, Toshiba Corporation offered the following remarks from the private-sector perspective. She stated that the way business is done at Toshiba, a company with an even longer history than universities in Japan, has changed as a result of the company's public engagement with a variety of stakeholders. Dr. Doi added that the question of how to resolve conflicts of interest was an important issue for bringing about public engagement with end users and stakeholders. However, when it comes to research impacts, companies and universities are operating in different matrices. In industry, the development of an idea into a commercial product causes the idea to be recognized as valuable, however in academia, as adoption rate figures and other statistics show, dissertations and patented ideas vary widely in quality, and not all are aiming for commercialization. Dr. Doi went on to describe Toshiba's approach to innovation, bringing in the company's visualization workshops in India as an example.



Prof. Toshihiko Nakata of the Department of Management Science & Technology, Graduate School of Engineering, Tohoku University, discussed his university's geographical location and history and its international cooperation programs with various entities including the British Council, and touched on the grave impact that the Great East Japan Earthquake has had on the university. He confided that prior to the earthquake, Tohoku University had experienced conflict about its role: the university was expanding its research worldwide, yet had a poor track record in

the area of local contribution and was not doing well at giving its knowledge back to its local community. However, following the earthquake, the university set up the Tohoku University International Research Institute of Disaster Science (IRIDeS) in 2012, and has developed eight projects in fields such as earthquake, community healthcare, ICT, marine science and decontamination based on the Reconstruction Action 100+ program. Tohoku University currently needs to engage in three types of public engagement: serving the Tohoku region, serving Japan and serving the world at large. Adding that such an approach had only just started at Tohoku University, Prof. Nakata set out his vision for the university as a place which could build up a track record in all types of engagement going forward.



Reviewing the discussions thus far, Mr. Hiroyuki Yoshikawa, director general of the Center for Research and Development Strategy (CRDS), Japan Science and Technology Agency (JST) emphasized that "Public engagement creates the reason for universities' existence in society." He added that the discussions about this in the UK are practical rather than theoretical in nature. He also expressed interest in how teaching faculties—which are prone to conflict—at universities in the UK had changed under the robust leadership of the university directors. He emphasized that in reforming universities in Japan, there needed to be changes to the vertical structure of Japanese universities which tend to be excessively compartmentalized into the

various faculties, and that one particularly important aspect of public engagement was that of creating structures that would enable universities to meet society's demands and allow staff themselves to work with vigour.

At this point, the facilitator Prof. Arimoto and six panellists took the stage and held a lively debate interspersed with questions from the floor.

Prof. Arimoto began by asking participants from the UK what kind of leadership had been exercised at their highly traditional universities and how reform had been brought about.



Prof. Nutbeam said that although it is impossible to train a cat because of its independent nature, it may be possible to change the cat's behaviour by offering it milk, and that universities which offer "milk" can change researchers' behaviour as well. For researchers at Southampton University, the equivalent to the cat's milk was the prospect of having environments set in place where they could "teach" and environments where they could "research", these being the areas that they excelled in. He emphasized two points that have facilitated the process: that the government has provided new financial incentives, and that the university has provided professional support to make it easier for researchers to connect with the outside world.

Prof. Smith then disclosed that 10 years ago "public engagement" had been a foreign notion even in British universities.

He emphasized how difficult it had been to change the culture at British universities, about the tide of opposition he had come up against as president of Universities UK, and about how in one case, one in seven members of staff had resigned over a six-week period as a result of the changes, yet stressed that bringing universities in line with the rest of the world was essential. He added that for universities to be able to clarify their research impacts and demonstrate how they contribute to society and the economy was also crucial in order to obtain funds from the government, because the UK needs universities that can compete on the international stage and obtain funding.

Mr. Manners stated that there was a need for high-level expertise on the questions of what kind of position universities wanted to occupy in the world and how they hoped to add value to education and research.

Prof. Arimoto brought up Toshiba's workshop initiative in India that Dr. Doi had described, and asked what kind of human resources were helping the project succeed in India. Dr. Doi said that the Indian project was started by people from the atomic fusion field, and described how those concerned served with the semiconductor division after entering Toshiba and visited India for training on emerging markets, and explained that these were people who, after learning their specializations at university, had been motivated by their company to learn about how to deliver products to consumers through integration.



Following this, Prof. Arimoto asked about the changes at and demands being made of Tohoku University. In response to this, Prof. Nakata said that although Tohoku University was strong in the domains of “vertical” knowledge, it was weak in terms of horizontal or cross-departmental knowledge, and that although the process of recovery following the earthquake had helped the university become more cross-departmental in nature, serious deficiencies in educational techniques and methodology remained. He expressed the wish that students should be able to make the leap into other organizations with horizontal structures after completing their studies in their own faculty’s “vertical” specialty, and that teaching staff should send the best students out overseas rather than keeping them to themselves.



Mr. Yoshikawa said that through the comments they had offered, the UK participants had delivered a message of great importance that represented a major challenge for the tradition-oriented sciences in Japan. He added that it was essential for scientists themselves to fully understand the importance of undertaking theoretical and application research together, and for there to be processes for understanding the need for public engagement, and that there also need to be discussions about “What does learning mean?” in Japan.

At this point, questions were taken from three people on the floor. The first question expressed agreement with the notion that for researchers, being able to conduct their own research could serve as

a reward (or “milk”), but inquired as to whether there was any data showing that researchers’ own research is in fact progressing as a result of public engagement. The second question inquired as to whether UK universities had any particular methods for showing researchers what kind of “milk” they could expect to obtain from outsiders through public engagement. The final question asked whether there were any possible strategies which involved bringing in professors who are skilled at integration rather than setting up independent departments for bringing together universities and societies like the URA.

The panel responded as follows to the questions.

Mr. Manners said that at universities there are invariably professionals who have considerable experience in partnership-building such as researchers in the fields of healthcare, planning and design, and that the value of teaching skills that they possess as professors should be further acknowledged by society as a whole, in order to enhance public engagement.

Prof. Smith said that the three questions that had come from the floor were questions that had previously been asked in the UK as well. He pointed out that breaking down the barriers between administrators and academics was a major issue, and asserted that universities needed to have professionals undertaking engagement and PR activities rather than the old-fashioned structure of “management versus academics.” He added that international competitiveness was an absolute requirement for universities, and that it was vital to break down overly compartmentalized organizational structures.

Prof. Nutbeam described how a change in attitude had become apparent among researchers over the past five years as funds had begun to concentrate on multidisciplinary research that spanned different fields. He added that as

researchers do not necessarily have high communication abilities, it was vital that professional spokespersons be involved.

Prof. Nakata said that in spite of its 100-year history, Tohoku University had not cultivated URA human resources, so it would be difficult for the university to find appropriate human resources for this task even if it undertook open recruitment.

At this point, there were three more questions from the floor. The first question inquired what should be done about researchers in abstract fields where there is no straightforward way to measure research impacts. The second question asked whether it was possible to break down the barriers between different faculties and fields through international partnerships. The third question noted that at present, university MOT was not functioning well. Without the support of the technology, even the participation of people in the MOT would not improve the situation. How did people in the UK feel about this?

The panellists responded to the questions as follows.



Prof. Smith explained with regard to the first question that case studies were being undertaken in the UK for individual instances based on international quality research, making it possible to trace the research impact.

Mr. Manners said that in each research division, cases studies are being demonstrated by the research group whose activities have achieved the most

successful results in terms of research impact.

Prof. Nutbeam expressed the opinion that trying to measure research impact for the humanities is something extremely challenging, and that this was probably being done under duress in some cases. He said that measuring impact in this way was important in order to keep to research budgets, but pointed out that when contributions occur they do not always take place in areas where they can be adequately explained as research impacts.



At this point, Prof. Arimoto asked Dr. Doi for private-sector perspective on the current state of engineering education in universities. Dr. Doi responded that her company is observing the Leading Graduate School Project with great interest, and pointed out that horizontal collaborations could be established if there are sufficient motivations; she added that it appears that this is a reward which researchers themselves can be obtained through public engagement.

Mr. Yoshikawa said that the academic sphere has a long history, and that the motive behind its foundation was that learning lies at the root of human-beings' way of thinking. He suggested that once researchers discover the true joy of the sense of achievement that comes through public engagement, the public engagement process could become a foundation for true learning. He urged universities to build this kind of learning.

Prof. Nakata introduced the idea of the “time axis,” suggesting that an ideal university would be a place where the individual dynamism of each teaching staff member could be captured so that different types of research can be flourished across the whole of the university, and that this lay in the management balance of the university president.

Finally, Prof. Arimoto concluded the panel discussion by saying that one of the keywords of the day’s discussion had been the notion of “trust” as the key to building sustainable relationships of confidence among various sectors.

■ Closing remarks ■



Ms. Azusa Tanaka, Head of Education, British Council Japan introduced the Japan-UK Research and Education Network for Knowledge Economy Initiatives (RENKEI) partnership, a British-Japanese university-industry scheme established in March 2012, and described how information on the partnership between Southampton University and Tohoku University, and other matters, would be communicated via a website and other media going forward. She concluded the session by saying that the British Council planned to continue making contributions to sustainable, long-term growth in Japan and the UK.