

in many countries, to graduate engineers being underemployed and having to work as technicians.

While Africa unquestionably needs an increased pool of excellent professional engineers, it equally needs an even greater number of practically trained, versatile technicians, not only to support the professional engineers, but equally to service and initiate small- and medium-scale industries, in order to create employment, improve the quality of life, and make fuller use of local resources. A major constraint, however, is the status of technicians. They are regarded as inferior to engineers, which is one of the reasons for the tendency to upgrade polytechnics and technical colleges to university status.

A major change occurred in 2004 when South Africa decided to convert all its technikons into universities, the first country in Africa to do so.

POLYTECHNICS CONVERSION POLICY

The dilemma facing sub-Saharan Africa is that, on the one hand, it has the lowest tertiary education enrollment (currently around 9 percent) compared to any other world region. It is therefore under enormous pressure to increase its enrollment, and it is doing so by either increasing its university intake or creating new universities, usually by upgrading its existing polytechnics. On the other hand, however, almost all African countries are facing the serious challenge of graduate unemployment, although precise statistical data of its magnitude in different countries is lacking. There is no evidence that graduates from universities would have better employment opportunities than those of polytechnics—on the contrary, the real need in Africa at present is for trained manpower at the technical and middle management level, which polytechnics are in a better position to provide. The justification for converting polytechnics to universities is therefore questionable.

One country that is currently reviewing its policy on polytechnics is Mauritius. At the beginning of the twenty-first century, Mauritius had two public universities and two polytechnics. In 2010, in order to implement the government policy of “one graduate per family,” the two polytechnics were merged to create a new university. An open university was also set up and construction was started for establishing three additional public university campuses in different regions of the country. In 2015, however, a newly elected government reversed the latter decision and decided that the three university campuses would be used for cre-

ating polytechnics, not universities. The two main reasons that guided that decision were the increasing unemployment of graduates and the dire shortage of middle management and technical skills in the country that was hampering the development of the small and medium enterprises sector.

A WAY FORWARD

Although tertiary enrollment in Africa needs to be significantly increased, that increase should not be in the university sector alone. Differentiation of the tertiary education sector is vital for Africa’s development. Universities will continue to play a vital role in Africa’s development, but the equally important role of polytechnics must be recognized. It is time, therefore, for African governments to seriously reconsider their policy of upgrading their polytechnics to universities, or to create appropriate institutions to replace the converted polytechnics, as in the case of Mauritius.

African countries should also undertake a thorough assessment of their skills needs in their various priority development sectors before embarking on any major review of their tertiary education sector policy. Hardly any African country has carried out such an exercise, and it is not an easy task. Under its Partnership for Skills in Applied Sciences, Engineering and Technology (PASET) project, the World Bank, in partnership with the Korea Development Institute, is assisting several African countries in undertaking such an assessment. ■

The Humanities and Social Sciences in the Age of STEM: The Struggle of Japanese as a Linguistic Minority

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DISPUTES ABOUT THE HUMANITIES AND SOCIAL SCIENCES IN JAPAN

In 2015, the Japanese government and universities were involved in serious disputes about the relevance of humanities and social sciences. The national universities, which

are public institutions directly funded by the government, received a ministerial notice asking them to restructure their programs in education and in humanities and social sciences, in order to fit the contemporary needs of learners and society. The detailed rationale behind this notice was not clearly stated, at least when the first notice was released. This policy, however, was based on numerous formal and informal discussions during recent national reviews of the mission of university education, initiated by the national government to identify the various functions of national universities. Under the established norms of academic freedom and university autonomy in Japan, there is a strong consensus that universities should have major institutional autonomy, while the government makes general recommendations concerning plans and directions.

In Japan, there is a strong tendency to consider the international dimension of higher education in a context of competition, rather than collaboration and mutual understanding.

Not surprisingly, opinion leaders in the humanities and social sciences reacted quite negatively. Some argued that this signaled the suicide of Japanese civilization, while others criticized the government notice as an unjustifiable intervention in university autonomy. The government argued that these criticisms were based on a misunderstanding of its intentions. To be fair, many of the national universities had admitted the necessity of reorganizing their programs in the humanities and social sciences even before the official notice was issued. Many national universities published plans to reduce student enrollment and the allocation of teaching staff in humanities and social sciences by reorganizing schools and departments. Meanwhile, some university leaders, such as the president of Kyoto University, stressed the importance of the humanities and social sciences.

PRIORITIZATION OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM) FOR GLOBAL COMPETITION

What made national universities implement these reorganizations in the end? Needless to say, nobody, including the national government, is against humanities and social sciences, which are indispensable sources of national intellectual and cultural identity. The structural background of these reform proposals was by no means a result of the

humanities and social sciences being considered “useless” or “inefficient.”

The Japanese government is continuously facing financial challenges. The government carries an extraordinarily large national debt, and the ageing of the population is a long-term problem for the national economy. The ministry of finance and cabinet-level national strategic committees are continuously proposing budgetary reallocations from schools and higher education—serving a decreasing youth population—to public support for the increasing elderly population.

Japan’s research performance in the fields of STEM is losing its leading position, due to the rapid development of the research capacity of neighboring Asian countries. The national government is concentrating public investment on a limited number of research universities in order to maintain their international rankings, which are mostly based on research performance in the STEM fields. Indeed, the visible downturn in the research performance in STEM in the national universities is already widely recognized: the talent pool necessary to sustain Japan’s research competitiveness at the top universities is shrinking.

Japan has a large private higher education sector, and the majority of undergraduate students in the humanities and social sciences are studying at private universities that rely heavily on income from tuition fees. Except for a small portion of public investment into academic research and postgraduate education to foster the next generation of academics, the necessity of public investment in university education in the humanities and social sciences is not widely acknowledged.

There is strong doubt in society about the value of university education in the fields of the humanities and social sciences. Most of the criticism is superficial. There is also wide and profound confusion about the nature of liberal arts and general education, and their relations with humanities and social sciences as specialized academic disciplines. Overall, however, even among university academics, there is an undeniable tendency to treat the humanities and social sciences as supplementary components to the development of science and technology.

A CRITICAL TURNING POINT IN THE AGE OF STEM

The current priority given by Japanese society to STEM fields over humanities and social sciences is not new. Investments in both research and education in the public higher education system have always been concentrated on the STEM fields, even among top comprehensive universities. In particular, during World War II, the government, and indeed the whole of Japanese society, concentrated resources on science and technology education and research, and withdrew resources, including human talent (students

and academics), from humanities and social science.

What is different now from 70–80 years ago, is the domination of English as academic lingua franca, including in many neighboring East Asian countries, where academics trained in English-speaking countries play leading roles even in the humanities and social sciences. The humanities and social sciences in Japan still maintain a good international reputation, based on the long-term accumulation of high-quality publications through the tradition of academic freedom and the autonomous development of thought and knowledge. These publications are also accessible to a wide range of citizens, as they are written in Japanese. However, many, including authors of science policy reports in both government and academic communities, admit that social sciences and humanities in Japan are relying heavily on absorbing overseas intellectual work through translation. At the same time, academic work written in Japanese by the vast majority of academic staff of universities in Japan in the fields of humanities and social sciences have little impact on international knowledge dialogues. Limited publication in English in these fields is becoming a serious obstacle to the further

development of the humanities and social sciences in Japan.

Considering the rapid development, both in quantity and quality, of academic publications in national languages in East Asia (especially in the Greater China region), it is unlikely and undesirable that English as an academic language should continue to monopolize fields such as the humanities and social sciences, which are deeply rooted in multilingualistic and multicultural activities and values. In Japan, there is a strong tendency to consider the international dimension of higher education in a context of competition, rather than collaboration and mutual understanding. This is, of course, related to the deep and long-term connection between national universities and the governmental agenda for national development, which does not always fit the twenty-first century concept of a globally relevant research university, free from national control. Moreover, a very limited shift of resources from the humanities and social sciences to the STEM fields will never lead to any improvement in the research performance of Japanese universities, without a concomitant and substantial increase in public and social investment.

NEW PUBLICATIONS

(Editor's note: *IHE* is no longer publishing short book summaries, but rather is providing a more comprehensive listing of new books that will be of interest to a higher education audience. We welcome suggestions from readers for books on higher education published especially outside of the United States and United Kingdom. This list was compiled by Edward Choi, graduate assistant at the Center.)

Abdullah, Melissa Ng Le Yen, and Ahmad Nurulazam Md. Zain, eds. *Towards Sustainable and Inclusive Higher Education: Challenges and Strategies*. Pulau Pinang, Malaysia: Penerit Universiti Sains Malaysia, 2016. 185 pp. RM42.00 (pb). ISBN 9789838619240. Website: www.penerbit.usm.

Akerlund, Andreas. *Public Diplomacy and Academic Mobility in Sweden: The Swedish Institute and Scholarship Programs for Foreign Academics, 1938-2010*. Sweden: Nordic Academic Press, 2016. 248 pp. KR229 (hb). ISBN 978-91-88168-51-1. Website: <http://www.nordicacademicpress.com>.

Bregnaek, Susanne. *Fragile Elite: The Dilem-*

mas of China's Top University Students. Stanford, CA: Stanford University Press, 2016. 172 pp. \$24.95 (pb). ISBN 9780804797788. Website: www.sup.org.

Case, Jennifer, and Jeroen Huisman, eds. *Researching Higher Education: International Perspectives on Theory, Policy and Practice*. New York, NY: Routledge, 2016. 260 pp. \$50.95 (pb). ISBN 9781138938847. Website: <https://www.routledge.com>.

DeMello, Richard A. *Revolution in Higher Education: How a Small Band of Innovators Will Make College Accessible and Affordable*. Cambridge, MA: MIT Press, 2015. 360 pp. \$31.95 (hb). ISBN 9780262029643. Website: <http://mitpress.mit.edu>.

Dougherty, Kevin J., Sosanya M. Jones, Hana Lahr, Rebecca S. Natow, Lara Pheatt, and Vikash Reddy. *Performance Funding for Higher Education*. Baltimore, MD: Johns Hopkins University Press, 2016. 276 pp. \$40 (pb). ISBN 9781421420820. Website: <https://jhupbooks.press.jhu.edu>.

Elkana, Yehuda, Hannes Klöpfer, and Marvin Lazerson, eds. *The University in the Twenty-first Century: Teaching the New Enlightenment in the Digital Age*. Budapest,

Hungary: Central European University Press, 2016. 302 pp. \$55 (cloth). ISBN 978-963-386-038-0. Website: <http://ceupress.com>.

Fabricant, Michael, and Stephen Brier. *Austerity Blues: Fighting for the Soul of Public Higher Education*. Baltimore, MD: Johns Hopkins University Press, 2016. 320 pp. \$29.95 (hb). ISBN 9781421420677. Website: <https://jhupbooks.press.jhu.edu>.

Finkelstein, Martin J., Valerie Martin Conley, and Jack H. Schuster. *The Faculty Factor: Reassessing the American Academy in a Turbulent Era*. Baltimore, MD: Johns Hopkins University Press, 2016. 557 pp. \$50 (hb). ISBN 9781421420929. Website: www/press.jhu.edu.

François, Emmanuel Jean, Mejai B. M. Avoseh, and Wendy Griswold, eds. *Perspectives in Transnational Higher Education*. Rotterdam, Netherlands: Sense Publishers, 2016. 219 pp. \$54 (pb). ISBN 9789463004183. Website: www.sensepublishers.com.

Gallagher, Sean R. *The Future of University Credentials: New Developments at the Intersection of Higher Education and Hiring*. Cam-