

IEICE Global Plaza

—Monthly community plaza in English for students, faculties and engineers—

Essay

Perspective upon the 21st Century Corporate–University Engagement —From Work–Integrated Learning to Learning Integrated Work—



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Introduction

Today, there are many hundreds of millions of active Facebook users; billions of YouTube videos; LinkedIn is a driving catalyst across companies for knowledge sharing, professional development and networking; eBooks and iPads are an entirely normal part of life; in my own organisation, Global University Systems, we have more than a million followers online. Many universities, albeit sometimes reluctantly, are rethinking their partnership relevance with business and society and the power of real world experiential learning such as service learning and work-integrated learning *beyond graduation*. Moreover, businesses are increasingly focused on building capabilities –competitive advantage by empowering the creative talents of its employees.

At first glance, you may think all of these transformational changes are about the precision, speed, capacity and technology. Indeed, the power of information technology is pervasive in all aspects of modern society, however, what these trends reflect is a fundamental aspect of the human condition: the natural power of engagement. People want to be connected with people, ideas, and knowledge through unlimited community engagement at home, in the workplace, locally, globally and continually. Technologies are, in fact, tools of engagement inside the workplace among employees, between universities and corporations, and across the globe. It truly is a brave new world.

Indeed, the concept of engagement may be defined across a variety of contexts and organisations. This commentary examines engagement as it relates to the changing corporate–university partnership and what factors will be essential for the future. Underlying this concept of engagement is the premise that learning is lifelong, occurs in diverse ways, locations, and media, and that Work–Integrated Learning (WIL) is simply the predecessor for Learning–Integrated Work that continues throughout one's professional life. The synergy and potential for Learning–Integrated Work (LIW), however, will be dependent upon a revision of employer–university engagement.

Revision of University Engagement

The ivory tower institution is rapidly becoming a concept of the past. The dominant form of university in the future will be one that is a hybrid with society, acknowledging that learning and knowledge development is not, nor should be, an exclusive domain of universities, but that a university will be much more effective through interaction and knowledge networks. The good news is that universities are beginning to embrace this concept of 'relevance' to employer–employee needs through new models of engagement.

The university of the future will want to be relevant, will want to see optimal impact of its research and education. It will have the ambition to shape the future. This requires a university that is neither arrogant nor lacks confidence. The first and the latter lead to universities creating demarcation lines. The successful universities of the future will enjoy their interaction with society and will involve employers in education because it acknowledges that this is in the interest of all (students, employers and society at large) and it will no longer focus primarily on the next generation academics, but rather on effective graduates that have real added value to employers and society.

Bearing all this in mind universities should consider fully

embracing *Work–Integrated Learning* (WIL) as an effective educational tool, but the truth is that the success of this depends heavily on the full involvement of employers and also the government. If companies do not recognise the importance that they are partners in the educational process of their future employees, one can only have modest expectations of the success of WIL. No doubt some employers, especially those who are ambitious, who realise commercial success can no longer be just a national venture and therefore are engaged in the global war for talent and importantly those employers who are enlightened in recognising the quality of human capital as the main condition for competitive success, will want to be involved. But this means only a small part of students will be able to benefit from placements.

So the question is how to make sure that higher education is truly co-operative, bringing the different stakeholders together and ensuring shared responsibility. Part of the answer no doubt is to make sure that employers are engaged with the educational process, rather than just offering a small part of it, i.e. the placement. Engagement is a crucial part of co-operative education and universities must actively engage employers as integral and equal partners. Though it is clear that university is the place of expertise when it comes to higher learning and that they deserve respect as such, being open to employers and seeking their involvement in the learning process through a structured dialogue should be recognised as an obvious example of the mutual benefit. The university in the 21st century, in my view, should be just as conscious of its credibility in regard to employers as of its academic credibility.

In sum, universities of the future must reach out and invite employers to be integral and equal partners in the educational process, particularly in aligning (not designing) curriculum that has practical, experiential and real world relevance for employees. The path of engagement must be reciprocal rather than the one-way street of the past that always led to the university. A university education is only the first step in career development; Learning–Integrated Work (LIW) takes over where Work–Integrated Learning (WIL) left off and is a lifelong process.

From WIL to LIW : Engaging Employers as Co-Partners

The new reality is that in order to be really successful Work–Integrated Learning will move on, at the point of graduation, into Learning–Integrated Work. When it comes to moving to higher steps on the career ladder, when it comes to moving into new areas or careers, or even just to make sure one remains in touch with new demands and insights, learning will retain its relevance. So the successful universities of the future will have to reinvent themselves as centres not just of WIL but also LIW. They will not let students leave, but will stay with them for the rest of their professional life.

Experiential learning is an essential tool to learn to reflect on practice, putting practical experience in a theoretical context and appreciate learning not as a stage in life but as a permanent tool to success in professional life. Currently higher learning is often still too much a matter of classroom experience of book knowledge that is not sufficiently related to reality. Though case studies are very good in spelling out that link, for many if not most, understanding how the interaction can function between theory and practice in daily work is of even greater value. Work–integrated education is the most effective tool when it comes to experiential learning. Obviously this goes beyond doing a placement or earning some credits through a company project. The emphasis lies on the word integration, which refers not only to the support the student receives in regard to the work–experience itself, but even more so to how a student is taught the process of reflection, applying analytical skills to real life situations and subsequently being stimulated to enrich the classroom environment with their real life experience.

The successful, permanent engagement of employers with higher education resulting in a truly effective structured dialogue between employers and educators, depends heavily on our ability to redefine cooperative education as a lifelong, on-going process, where students never really leave the university. In my view graduation is only the moment when Work–integrated learning shifts emphasis and becomes Learning–integrated work. It is an outdated concept that students would have all the knowledge and skills they need on the point of graduation.

Back to the Future : Empowering LIW Engagement

So where do we go in the future? The following summarises some key points discussed in this commentary. They are not all inclusive to Work-Integrated Learning and Learning-Integrated Work. Perhaps, however, they will provide a few ideas for reflection and dialogue between your university-company-government office and its essential stakeholders and partners.

- (1) Universities of the future must reach out and invite employers to be integral and equal partners in the educational process, particularly in aligning (not designing) curriculum that has practical, experiential and real world relevance for employees. The path of engagement must be reciprocal rather than the one-way street of the past that always led to the university. A university education is only the first step in career development; Learning-Integrated Work (LIW) takes over where Work-Integrated Learning (WIL) left off and is a lifelong process.
- (2) Technologies are, in fact, tools of engagement inside the workplace among employees, between universities and corporations, and across the globe. These innovations provide immense formal and informal learning opportunities for problem solving, knowledge sharing, and communications among and between students and employees from multiple sectors.
- (3) University engagement should foster a lifelong connection among all alumni with the university. Alumni will return to the university in various roles throughout their professional lives which benefit the individual, the university, the company, and the sector.
- (4) The global context is an essential aspect of the university-corporate partnership and providing opportunities for students/employees to reflect and experience global work opportunities is about the real world.
- (5) Universities and corporations must foster multi-sector interaction among its students, employees, alumni, and corporate partners. Classes with students from business, government, community organisations, education, and the general workforce make for a dynamic learning environment. The value of multi-dimensional perspectives, reflection, and problem analyses in different contexts is an invaluable component of effective education.

In the final analysis, Learning-Integrated Work will drive the business and university sectors in the future. The success of this endeavour will, to a large extent, be determined by the capacity of business and universities to co-create a dynamic and flexible strategy for the multi-dimensional components of engagement.

**Note by the Editor, Kenzo Takahashi, Prof. Dr.,
University of Electro-Communications,
Board Director of World Association for Cooperative
and Work-Integrated Education, Boston**

The author, Prof. Maurits van Rooijen is the Chief Academic Officer of Global University Systems. He is a well-known world class academician who has contributed to academic activities and globalization of many universities over the world, including University of Pennsylvania, Cambridge University, University College London, Bergen University in Norway, University of Hanover in Germany, Vienna University of Technology in Austria, and he has served as Professor, Guangdong University of Foreign Studies, Beijing Union University, both in China, Victoria University in Australia, Nyenrode Business University in Netherlands after he graduated with PhD degree in Green Urbanization from Utrecht University in the Netherlands (See the details at https://en.wikipedia.org/wiki/Maurits_van_Rooijen).

He served the University of Westminster in UK, as the Executive Vice President during the years in which the institution won the Queen's Awards for Enterprise twice. He also conducted the research on green urbanization leading to the current Smart City. He has also performed the top management of many world level universities, and Compostela Group of Universities in Spain combining 67 universities in Europe and America.

He also serves, as the Chairman, World Association for Cooperative and Work-Integrated Education (WACE, Boston, USA, see the details at http://www.ieice.org/eng/activities/ieice_global_plaza/2009/18.html#1 or <http://www.waceinc.org/>), which has been evolved with the support of U.S. Department of State in 1980's, where he has much contributed to the international internship development for students. His article indicating the new paradigm of higher education based on the collaboration between industry and academia will not only evoke the interest of general readers in industry and universities, but also surely encourage both students in universities and the young generation in private sectors or Government.

Hot Topics

Introduction of New Representatives of IEICE International Sections for the 2015/2016 IEICE Fiscal Year no. 5

IEICE International Affairs Committee

The former issues of IEICE Global Plaza have introduced nine of twelve current IEICE International Section Representatives who were approved by the first 2015/2016 Fiscal Year Meeting of IEICE International Affairs Committee on June 17, 2015, in alphabetical order of Section titles. This issue introduces the Representatives of IEICE Singapore Section.

IEICE Singapore Section



**Dr. Subramaniam Arulkumar,
Program Manager, Temasek Laboratories,
Nanyang Technological University, Singapore,
Representative, IEICE Singapore Section
Member, IEICE**

Vision

The IEICE Singapore Section has been evolved since it was set up to better serve IEICE members in Singapore with the leadership of Prof. Le-Wei Li, National University of Singapore, in 2003. I have taken over the role of Representative from Asst. Prof. Arokiaswami Alphones in the beginning of this fiscal year. The efforts of our Section will cover the following:

- (1) To encourage students and staffs to join the IEICE society.
- (2) To publicize membership benefits by supporting local conferences in a name of IEICE Singapore Section. This will motivate the people to join the IEICE society.
- (3) To invite two eminent researchers from Japan to deliver seminar in Singapore Universities/Research Institutes.
- (4) Plan to arrange a joint workshop between Japan and Singapore under IEICE society umbrella.
- (5) To arrange a gathering with all IEICE members in Singapore.
- (6) Selecting eminent researchers from Singapore to deliver a seminar in Japan Universities/research Institutes

Your active participation in our regional activities is most welcome.

Profile

He received his Ph.D. degree in Semiconductor Physics from the Anna University, Chennai, India in 1997. In 1996, he received CSIR-Senior Research Fellowship from Council of Scientific & Industrial Research in India, and he also received the DAAD short term Research Fellowship to do part of his Ph.D work at Institute of Crystal Growth in Berlin, Germany. Then, he worked as a Device Physicist of Core Technology in Motorola Semiconductors Sdn Bhd in Malaysia, and he received Engineering Excellence Award for the demonstration of oxide free die-bonding process from the company in 1998. He was also awarded the prestigious JSPS post-doctoral fellowship for two years by Japanese Government in 1999, to develop GaN Materials, Fabrication and Characteristics of MES-FETs and HEMTs on different substrates, and he served the Research Centre for Nano-Devices and System, Nagoya Institute of Technology, Nagoya, Japan, as a Research Associate (Assistant Professor). He joined Nanyang Technological University (NTU), Singapore in 2005. He now works as the Principal Research Scientist and Program Manager for the GaN MMIC Program in NTU. His current research focuses on the design, fabrication and characterization of III-Nitride devices and circuits suitable for high-power, high-frequency, low-voltage switching and high-voltage switching device applications.

Message from TFIPP Secretariat

This issue is delivered also by a free mail magazine "IEICE Global Plaza on Line" with updated news of interest for you. Please contact Prof. Takahashi, TFIPP (Task Force for International Policy and Planning) at global@ieice.org, if you need. Back numbers are available in archives at:

http://www.ieice.org/eng/activities/ieice_global_plaza.html.

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