

# Editorial

## **Innovation, revolution and the fourth industrial revolution:**

Don Tapscott, a world-renowned expert on the impact of technology on business and society, in a recent interview with the Maeil Business Newspaper, said that the real greatest innovator of the digital era is Elon Musk, the CEO of Tesla Motors Company (Pulse by Maeil Business Papers News Korea). Don Tapscott is the author of 15 books, including *The Digital Economy*, which was a big hit in 1995. In the digital economy, business leaders need to be adaptable to the big transformations in business and economic activities, such as business networking and the ways of doing businesses, in order to understand the impact of growing new media to human lives.

According to Don Tapscott, Steve Jobs was a smart innovator; however, he was:

[...] limited as a leader in old style who didn't understand roles of companies in the world, even though he created good products [...] The great leader is the one who can bring changes to the whole world on top of the industry where his or her company belongs to.

He noted that Elon Musk, CEO of Tesla Motors, is instead the greatest CEO in the current digital era, if he keeps going. Elon Musk was an unsociable boy who created a video game called Blaster at age 12. He was a genius type of inventor who spearheaded the digitalization of newspapers establishing Zip 2, sold to Compaq's AltaVista later, a company which provided and licensed city guide software to newspapers. In 1999, he co-founded X.com, which was later transformed into PayPal in 2001. Next year, he sold the PayPal to eBay for \$1.5bn, getting himself \$100m at his age of 30.

Elon Musk also never stopped driving the electric vehicle (EV) revolution. In 2004, he invested \$6,500,000 into Tesla Motors, and was subsequently appointed the chairman of the company. Under his leadership, Tesla Motors introduced the first EV model for a two-person, convertible roadster in 2006, followed by the Roadster EV model in mass production system in 2008. Since then, the EV model has evolved into the Model S in 2012, Model D in 2014 and Model X(SUB), and Falcon Wing type in 2015. Elon says, "Tesla is not just an automaker, but also a technology and design company with a focus on energy innovation". Tesla Motors is approaching an autonomous navigation vehicle with powerwall or powerpack battery equipped. His curiosity even extends to space exploration, establishing a rocket firm Space X, and solar installer SolarCity was created with his dream of building a colony on Mars by 2030, extending human lives to multi-planetary.

Innovation is motivated by entrepreneurship coupled with business leadership to create businesses and help change human lives in various aspects in order to increase people's happiness. Innovation contributes the improvement of the quality of human lives by having real-world impacts. As a result, innovation is important

not only to help increase a company's profits but also benefits of the people who purchase the innovative products. This is a topic at the heart of the philosophy of entrepreneurship and business ethics.

In the history of industry, innovation has been the source for many revolutions. The third industrial revolution was concerned information technologies, new materials and biotechnologies in the field of electronic devices in 1970s. In this era, the production method adopted was mechanical automation using renewable energy. The internet and SNS were the main devices used for communication. Thanks to the innovations in the area of information and communication technology (ICT) manufacturing by fusing ICT and manufacturing, the fourth industrial renovation is approaching by 2020. The production method adopted is automatic production by robot simulations using bio and natural energies with internet-of-things (IOT) internet systems.

General Electric (GE), a symbol of the traditional type of manufacturer, recently declared that they are fully oriented toward a software company by 2020. The total 75 per cent of the GE's sales volume came from "before service" already, which is the services for the data analyses and management, rather than from the sales of products. In this sense, GE is no more a traditional manufacturer at all. On the other hand, Apple and Google, deeply software-oriented companies, are making automobiles. They are moving toward a new philosophy of management, including manufacturing divisions into their business lines. Tesla Motors is another example of the transformation which is now called the "Industry 4.0" or the "Fourth Industrial Revolution". The "Third Revolution" was based on computerization of physical distribution systems, consumption process and production automation. However, in the "Fourth Revolution Era", the manufactured product itself is equipped with the "artificial intelligence" that will change and will have a profound impact on many aspects of human lives.

In this "Fourth Revolution Era", the most important keywords are artificial intelligence, big data analysis, RFID, IOT, VR, ICT, smart city, sharing economy, self-driving cars, cloud computing, bio algorism, etc. The business leaderships and philosophy of the leaders of this era shall be concerned not only for the profits but also more tightly with the advancement of human rights, human convenience and, eventually, the happiness of human beings. In this era of transformation, toward the benefits and happiness of human beings, the *Asia Pacific Journal of Innovation and Entrepreneurship (APJIE)* Volume 10, No.1 publishes 12 papers selected from the 20 global members of the *APJIE* authors, including, New Zealand, Germany, Canada, USA, China, The Philippines and Korea. The *APJIE* Desk is very happy to publish the strictly selected papers by the *APJIE* double-blind peer reviewers for the first publication by Emerald Publishing Ltd. The *APJIE* Volume 11, Nos. 1, 2 and 3 will be published in April, August and December 2017, respectively.

To meet the needs of our global professional readers in this era of the transformation, the *APJIE* Desk is recruiting individuals as editorial board members who would be interested contributing to the continued success of the journal. Accordingly, the *APJIE* Desk officially announces a "Call for guest Editors" who are willing to present a proposal for "Special Issues" in 2017 and 2018. Anyone who is willing to invest their time with *APJIE* should send the Desk an proposal of "Special Issue for eight papers in one common theme" with time designation without

delay. The guest editors will subsequently be invited to serve as Associate Editors of the Board thereafter. This is an idea for maintaining the *APJIE* as a competitive professional quality journal.

Finally, the *APJIE* Desk is most grateful to the *APJIE* supporters of AABI (President, Zhu Zhen Hong), STIC (President, Zhu Zhen Hong), ISBA (Rajendra Jagdale) and KOBIA (Hyeong San Kye) for their continued support for the coming three years up to 2018 for the contract with Emerald Publishing Group. In addition, the Desk offers special thanks to the Singapore Entrepreneurship Center, which is willing support big parts of the operating cost of the *APJIE* publication for the coming three years. It was a nice and generous commitment by the Singaporean Entrepreneurship Center at the 22nd AABI General Assembly in Shanghai.

Thank you!

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