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INNOVATION IN ECONOMICS, SOCIAL AND EDUCATION: INDUSTRY 4.0

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Abstract

Consumers are eager to improve their lives with connected devices. Smart connected devices are ringing in a new era for businesses, economics and educations. The interconnectivity of our digital devices that provide endless opportunities for businesses to listen and respond to the needs of the current and future customer, by sending the right message, at the right time, on the right devices. A systematic literature review method employed in surveying the related literature. Educational institution is moving forward to ensure the right skills embedded in the curriculum to prepare a marketable candidate for the future work force. The agenda of innovation in society, economics and education is the biggest springboard in moving forward with the revolution of Industry 4.0.

Keywords: Industry 4.o, Innovation, Economics, Social, Education.

How will our daily lives be with new industrial revolution?

Study by McKinsey & Company (2017) have indicated that existing technologies could soon be responsible for the automation of 30 to 50 percent of all current work activities-leading to a staggering \$16 trillion in eliminated wages, and massive job losses.

Industry 4.0 in Education

Industry 4.0 is the nation's way forward by leveraging new technology adoption and smart production, while improving efficiency and competitiveness in manufacturing, and across other sectors. It has also to connect them with industry and academic leaders. (May 12, 2019 – The STAR). Times Higher Education (2019) point out that, Industry 4.0 will shake many industries.

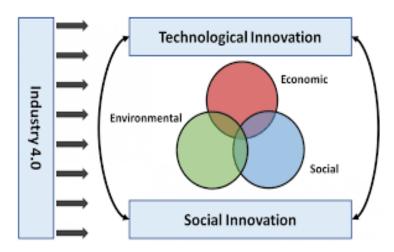
Because of these changes, it will alter the performance of how jobs and education curriculum. This will lead to the progression of education 4.0.

Meanwhile, Chou, Shen, Hsiao, and Shen (2018) research indicate that, the earlier teaching substances in children's schools have been altered and departments in schools have been integrated, so as to propose courses that offer big data analysis, cloud computing, Internet of Things, in order to fulfill the loads of Industry 4.0. Nevertheless, higher vocational education has establish a classroom that hold the notion of Industry 4.0. This is to institute a handy collaboration and segment means within the same organization. Industry now assist schools in updating educational institutions paraphernalia and lessen the breach amongst education and training by furnishing students at technical and vocational universities with the correct keenness beneath system incorporation and industry assembly.

Where is Malaysia in Preparing Students for Industry 4.0?

(Lee, 2019) The Malaysian Education ministry said that Education Institution, Economic, and Societies have to work in tandem with industry players as well as German groups to improve TVET in the country - which is set to be similar to Germany's TVET structure.

He called on students and the public to consider on TVET as part of their choice of study. "TVET is part of our education system. It is not the last resort as many still see it to be. It is a good option and the way forward in the world," said Maszlee during a visit to the #mydigitalmaker Fair 2019 at MITEC on Sunday (Sept 15, 2019). He also noted that TVET takes up quite a sum in Budget 2019 as well as Budget 2020. The National Union of the Teaching Profession (NUTP), in a statement, had called on Prime Minister Tun Dr Mahathir Mohamad to make TVET a "national priority".



Framework for the educational innovation in esteem with Industry 4.0.

1800	1900	1970s	2015+	2030+
Industry 1.0	Industry 2.0	Industry 3.0	Industry 4.0	Digital ecosystem
The invention of mechanical production powered by water and steam started the first industrial revolution	Mass production, with machines powered by electricity and combustion engines Introduction of assembly lines	Electronics, IT, and industrial robotics for advanced automation of production processes Electronics and IT (such as computers) and the Internet constitute the beginning of the information age	Digital supply chain Smart manufacturing Digital products, services, and business models Data analytics and action as a core competency	Flexible and integrated value chain networks Virtualized processes Virtualized customer interface Industry collaboration as a key value driver

Source: STATISTA 2019

Conclusion

Many countries are prepared for Industry 4.0 – and others not so much. With work and preparation, however, Industry 4.0 can bring widespread value. The most important issue that concerns Malaysian in relation to Industry 4.0 is, the ability to prepare our work force, current and future, to be in tandem with the current revolution of Industry 4.0 as well and preparing our work force with the assistance of educational institution, economic and society through educational innovation, economic innovation and social innovation.

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