

# Orientation for an Education 4.0: A New Vision for Future Education in Vietnam

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The phrase "fourth industrial revolution" contains a significant change, not only changing the economy but also the whole culture and society. The industrial revolution 4.0 has turned our Earth into a village. No area on earth is a separate, inviolable territory. Education is considered a key area of training human resources in the era of industrial revolution 4.0. Recently, with the explosion of data, the results of digitalisation and Internet connectivity everywhere are becoming the foundation of revolution 4.0. Industry 4.0 requires education of 4.0. "Education 4.0", education shortly originates from the industrial revolution 4.0 (Industry 4.0). It is a technological revolution that is growing at an exponential rate, which is expected to explode in 2020 and create a fundamental change in the knowledge economy. The 4.0 Industry can lead to greater inequality in society, especially the risk of disrupting the traditional labour market, proceeding to establish a new labour market in which the competition of creative knowledge. Besides the significant impacts on the economy, the industrial revolution 4.0 must also have a significant impact on Vietnam education. The industrial revolution 4.0 requires active, independent, free, self-study, self-study, self-motivating, especially creative thinking of all circles. In the industrial revolution 4.0, people do not talk about qualifications; people will be judged according to the value they bring to society, regardless of qualifications and origin. Future teachers will have to teach people to learn how to self-learn, self-thinking, and self-improvement. Workers will become global citizens and emulate anytime, anywhere. In this revolution, each of us must mobilise, change, and moult. What is extraordinary is that no one can stand outside this revolution, if people do not move according to it, they will be left behind. The paper focuses on an overview of the development trend of Vietnamese education in the era of the industrial revolution 4.0. This article presents an overview of the fundamental changes in educational technology in the future. Also, the author emphasised the opportunities and challenges of Vietnamese education before the threshold of education 4.0 of progressive humanity.

**Key words:** *Education 4.0, future learning, future education, 4.0 Industry.*

## Introduction

The fourth Industrial Revolution spread throughout the world as it is today because of the speed of development and the impact of technological breakthroughs have had unprecedented strong influences. Innovations and scientific advances are present in all fields, such as artificial intelligence, robotics, Internet of Things (IoT), self-driving cars, biotechnology, Na-no technology, 3D printing technology, material science, quantum computers (Moeuf, Pellerin, Lamouri, Tamayo-Giraldo, & Barbaray, 2018). The impact on most industries at such a rapid rate that people say the Fourth Industrial Revolution is growing at the speed of exponential functions. Industrial Revolution 4.0 quietly penetrates social life to the extent that it seems natural (Van Dijk, Bubas, & Smits, 2015). Experts said that products, people, and machines would communicate with each other on social networks. These technologies have the potential to connect billions of people around the world, significantly increasing operational efficiency for organisations and businesses (Pham, 2019). Activities to restore natural resources or even restore the losses that previous industrial revolutions cause (Frolov, Kaminchenko, Kovylnin, Alex, & Alex, 2017).

Challenging global changes are currently affected by four groups of factors: i). Social impact; ii). Strategic action; iii). Talent and labour force; iv). Technological impact (Huang, Yu, Peng, & Feng, 2017). Also in this report, the Deloitte Consulting Organisation has specified seven disruptive factors (disruptors) will appear in the near future, including the emergence of technology everywhere; data storm; the diversity and rapid change of the younger generation; a rapid change in the nature of the profession; artificial intelligence, cognitive computers and robots; automation at work; and the explosion of a labour force doing random jobs (Alani & Alloghani, 2019).

Vietnam is at risk of falling behind if it does not meet the resources to integrate itself into technology (Hoang & Pham, 2018). In the current society, almost all activities from transportation, production, health, security ... are gradually using technology to replace human resources. However, for maximum effectiveness, people are the key to success. Therefore, training and education play a significant role in developing human resources to meet the requirements of the 4th industrial revolution. The fourth Industrial Revolution plays a vital role in creating products and services that allow us to have a better life. Conversely, this revolution may also lead to even higher inequality as new technologies will replace labour-intensive jobs (Harkins, 2008). This is considered the most prominent challenge brought about by this revolution. Also, there is another challenge to how to create jobs that require higher skills for people when automated technologies have replaced labour in many daily tasks. Thus, the



phrase "industrial revolution" contains a significant change, not only transforming the economy but also transforming the whole culture and society. Vietnam is moving very fast from the "golden population" structure to the age of population aging (Khoa Pham & Phuong Nguyen, 2019). The fourth Industrial Revolution should be seen as an opportunity for us to increase labour productivity based on scientific and technical applications, effectively utilising the current "golden population" structure. Indeed, education and training will play a pivotal role in solving this significant problem (Q. Zhang, Jiang, Hu, & Pan, 2017). The 4th industrial revolution is directly affecting each individual, family, business, and exceptionally the most affected is the educational environment - where directly training human resources to serve the public Industry 4.0 (Götting et al., 2017).

Industry 4.0 is currently known for identification features such as robots, Internet of Things, Big Data, 3D printing technology, artificial intelligence. (Hyland, Buckley, Seery, Gordon, & Canty, 2018). Although the dimensions of the Industrial Revolution 4.0 did not co-occur, they began to have an impact on current education and shape the future of education. To seize the opportunities and limit the challenges of this revolution, education in countries needs to have corresponding transformations, forming a new form that many people call education 4.0. A report at the 2016 World Economic Forum in Davos with the participation of more than 2500 most influential and powerful people in the world shared some remarkable figures: 65% of learners still learn things related to future careers which no longer exist; 47% of current careers will be switched to automation in the next 2 decades, and by 2020, more than 50% of teaching content in schools at all levels will not be useful in the next 5 years (Ramirez-Mendoza, Morales-Menendez, Iqbal, & Parra-Saldivar, 2018).

Lifelong learning as a mission of future education. Many education experts believe that there must be a radical change in the approach in education, from education in schools to education in life, learn in a classroom or workplace, learn online or offline, taught or not taught, standardised or non-standardized, certified or non-certified. All will have to escape from the old thinking during the 4.0 revolution. Education 4.0 requires a radical improvement of the approach as well as a new vision for the continuous innovation of future education. Future education will meet the needs of Industry 4.0, where people and machines create a world and create new possibilities for society (Chen, Tabssum, & Nguyen, 2019). Future education will tap into the potential of digital technology, a significant personal data source, an open data source, a globally connected technology, and knowledge. It also develops a new learning plan for the future, which is a "lifelong learning" plan, learning from an early age, learning while sitting in a school chair, learn while working, and learning to have a better role in society.

## Future Trends in Educational Technology Development

All universities now recognise the importance of promoting the application of modern technology in education to make radical changes in teaching and learning methods. According to Hadley Ferguson, CEO of the Edcamp Foundation, changing and accessing modern technology is not only about owning computers in the classroom, but also the right understanding of the applications of technology to handle (Phuong, 2019). Reasonable action and bring a better effect. Hadley also predicts that educational needs will change with technology, not technology that will change the nature of education, and state-of-the-art educational technology will assist students in perfecting their learning independently (Miraz, Ali, Excell, & Picking, 2015).

Neither can we accurately predict the speed or applicability of the technology in a future life, nor in education and training? However, the trend of education to be close to high technology is an inevitable trend, and can indicate some of the following educational technology trends: (1) *Digitizing classes*. Instead of treating information technology as an independent tool and skill, digitalisation will emerge and cover every aspect of the modern classroom. Examples include tablets, electronic displays, interactive whiteboards, data projectors.

(2) *Smart tangible equipment*. It is the embedding of existing programming into physical materials through smart devices, connecting everything through the Internet and profoundly and profoundly impacting on the mechanism of learning and receiving personal information. For example reaction materials, reactive furniture, 3D printers, learning real things through digital space.

(3) “Gamification” is the application of learning principles to the design of games. These are the principles that create excitement and stimulate players to participate in learning, addictive principles (L. Zhang, Li, & Phuong, 2019). Create an immediate positive feedback mechanism for participants in in-game activities. For example, student development applications, educational games, educational programming tools, virtual rewards, etc.

(4) *Virtual digital multimedia room*. A place for connecting cyber information between online and offline, providing a tool to reveal potential information in the future. Examples include smart glasses, virtual displays (HUDs), complete imaging equipment (3D spatial imagery is one type), neuroscience data (the brain's multilayered research), virtual simulated reality (material perception in the non-material world).

(5) *Mobile application*. Mobile is a popular technology device with wide coverage to everyone; every field is studying and applying it in association with specific products. Trends based on mobile applications are a trend that has been and is being implemented. Mobile devices and tablet devices are everywhere; it is a tool that directly connects to valuable learning support resources. Distributing courses on mobile phones helps learners easily study anytime, anywhere, saving time and cost as well as easy to use. All learning content is packed into a user-friendly and easily accessible phone (Zhong, Xu, Klotz, & Newman, 2017). With the

above technology development trend, the training trend will gradually become unique and new; given the Royal Society (The Royal Society, 2017), some common trends are easily noticed:

"Learning society": The development of society has created an open learning environment with many opportunities for exchanges and cooperation. With an integrated society, accessing and exchanging information more conveniently and making the best use of professional resources to share and exchange knowledge easily can be done globally. Social interaction enables learners to exploit knowledge at different levels and levels. With diverse access to information resources, learners can easily collaborate with experts in the field of expertise to find solutions to the problems they are looking for and motivate those with specialised skills. Maximise efficiency in social cooperation. While working and studying by yourself, each individual must have a "learning society" strategy; if you do not participate in the process of self-training through social interaction, you will be left behind. When social interaction is part of an organisation's development, workers have more opportunities to participate in the process of self-training and benefiting the organisation. Organisations also see benefits as well as innovation and creativity in society and expect employees in the organisation to achieve.

*"Breaking up lessons"*: This is an inevitable trend in the period of information technology development; students always want to quickly find information in a concise, easy to understand, spend less time, and easily record information. With many assistive technology tools, learners can access many different types at the same time (videos, podcasts, questions ...), with the content being broken down, condensed will make learners fascinated and create excitement when learning. The trend of using smart devices such as mobile phones and tablets allows the delivery of courses with reduced content, broken down into many parts to create a flexible learning environment, dynamic, comfortable for learners to access anytime, anywhere.

*"Open educational resources and personal learning equipment"*: A learning society is formed, open educational resources are teaching resources, study without copyright, or are released under an intellectual property license and are provided free of charge on the Internet. The difference between open educational resources is to allow the whole society to have free access, copy, modify and build according to the users' purposes. Open source of learning material has real meaning for sharing free knowledge, quality is always updated, and development costs are reduced. Sharing will speed up the development of open-source materials, promote innovation, innovation, and reuse of resources. Open learning resources and open social sharing are the basis for the development of personal learning devices such as devices read e-books, smartphones, tablets, notebooks. Learners quickly access their learning materials and courses based on tools such as email, Dropbox, Google Drive, Evernote, Blog, Facebook, Twitter. It is these things that require changing the educational method as well as the approach to education to suit the modern technology devices that support the daily training of every one of us. These

are also development trends that education cannot be ignored and prohibited (He, Zhang, Ren, & Sun, 2016).

The future of learning is no longer confined to one classroom; it is beyond the scope of a classroom, learning will continue in life, in everyday work through many different situations. Learning will last a lifetime and be voluntary, learners actively acquire knowledge for personal and professional goals, strengthening social integration and proactively developing oneself to increase personal competitiveness in the profession, meeting the requirements of the 4.0 revolution.

### **Necessary Skills of Workers during the 4.0 Revolution**

According to the book “Applied Sciences and Technology” (Lexcelent, 2019), the human has to up to 35% of the skills needed for the present will have to change during the 4.0 revolution. By 2020, the fourth industrial revolution will bring us advanced people and automated operations, artificial intelligence, and automated machines will appear more, advanced materials, biotechnology, and genes will develop. These developments will change the way we live; the way we work. Some jobs will disappear; some jobs that do not exist at present will become popular in the future. The workforce will have to change its skills to keep up with the trend. Some jobs will disappear; some jobs that do not exist at present will become popular in the future. The workforce will have to change its skills to keep up with the trend. According to forecasts, ten skills needed in the future include Complex problem-solving skills; Critical thinking; Creation; HRM; Collaboration and coordination; Emotional intelligence; Assess and make decisions; Service-oriented; Negotiate; Cognitive flexibility.

**Complex Problem-Solving Skills:** This skill is considered to be the essential skill in the 4.0 revolution, which is the ability to solve new and challenging problems to identify in a new and complicated real situation. It demonstrates the flexibility to solve problems and the ability to recover spiritually in a context of continuous change and increasingly complex. With this skill, you will see a bigger picture of the problem, look more clearly in a complex transforming space, and make a difference for yourself. This skill also continues to become one of the top skills that employers demand from potential candidates. Soft skills such as persuasion, emotional intelligence, coaching, and guidance will also be highly required in all professions. Meanwhile, professional skills such as programming or operating and controlling machines will no longer be highly required. In essence, besides professional skills, workers always need to supplement social and group collaboration skills.

**Critical Thinking:** Critical thinking is a positive thinking process and is proficient in conceptualising, analysing, and synthesising and evaluate the information received to draw

more accurate conclusions about things and phenomena in life. AMSC defines critical thinking as disciplined, self-directed thinking that reflects a high level of skills and ability to think.

***Innovation:*** Changing technology, thinking, working requires people to have creativity; creativity is an essential element different from automated machines and equipment. Creativity exists in any person, any field, and is a critical skill in the future.

***Human Resource Management:*** At any given age, no matter how automated artificial intelligence and machines are, it is still indispensable for human management. Staff and machines are always the core of the organisation, but competence, emotions, expertise are different between people and machines. It will always be a problem that needs to be managed by a person with the intelligence and ability to delegate development.

***Collaboration Ability:*** Communication and teamwork skills, showing the ability to coordinate in work. Collaboration is critical in any work environment, especially in environments with an extensive database of information that needs analysis. Demonstrate a combination of capabilities, weaknesses, and strengths of each individual and cooperate with many different personalities; both robots and humans can perform at the same time.

***Emotional Intelligence:*** An ability to track and control your feelings and emotions as well as those of others, distinguish them, and use this information to guide your thinking and actions. The five parts of emotional intelligence: The ability to understand oneself (knowledge of one's own internal states, preferences, resources and intuition); The ability to control itself (the ability to manage its internal states, impulses and resources); Motivation (emotional trends that guide or assist in achieving goals); Sympathy (the ability to understand the feelings, needs and concerns of others); Social skills (adept at evoking desired responses within others).

***Judgment and Decision Making:*** The ability to make accurate and skilful judgments in important human decisions. The principle of implementation is to find questions, based on big data analysis, to provide accurate, dependable solutions.

***Service Orientation:*** It is a human ability to act to help others, a service-oriented skill that guides others according to their needs. People will face carbon emissions, food safety, labour standards, and personal issues. Businesses must capture faster to anticipate new values adapting to consumer requirements.

***Negotiation:*** Machines will gradually replace people in some future jobs. As repetitive jobs are gradually lost, the social skills needed for rapid change in job handling become more critical. People will better handle machines in communication skills, negotiation with partners, with colleagues, with managers.

**Cognitive Flexibility:** Cognitive flexibility represents a logical mind with all problems at once, and problems are quickly realised before it is solved. The brain is expanded to accept all of your interests flexibly.

#### **A New Vision for Education 4.0**

In future education, learners must know what they need, what knowledge and skills they need to equip and then investigate its nature, contrary to the present, there are many things learners are crammed into and put on their heads without knowing whether it is beneficial for future life. Live and learn according to your passion. Learning together, learning from each other, the learner-centred teaching method, the role of a lecturer is only to support, guide, and build a learning community with the same idea, ambition, and 4.0 education. We can take a look at nine outstanding advantages of education 4.0 from Ricardo et al. (2018) and Jarosław et al. (2017) as follows:

**Study Anytime, Anywhere (Diverse Locations And Times):** Students have many opportunities to study in different periods and different places. Learning becomes easy and convenient with online learning tools that support distance learning and self-study. Classes are likely to be reversed compared to the current traditional classes, the theory will be self-study, online learning outside the classroom, while the practical part will be taught and guided directly in the classroom.

**Personalise Learning:** Students will learn to adapt learning tools appropriate to each individual's abilities. Different levels of difficulty will challenge each group of students with different qualifications. Students have the opportunity to practice more on complicated modules until they meet the requirements. Students will be strengthened knowledge as well as have a positive experience in their independent learning process; they will be more motivated and more confident about their ability to study. Moreover, lecturers will quickly see the level of each student to intervene and help promptly.

**Freedom of Choice:** Although each subject is taught for the same purpose, the path to achieving that goal may be different for each student. Every student can choose their learning strategy with the learning tools they feel are necessary and most appropriate for them. Students will study with different assistive devices, different programs, and different technologies based on each person's unique interests. Traditional learning, combined with online learning, will make an essential change in the current learning trend.

**Project Implementation:** Future careers will be associated with a free economy, so students increasingly have to adapt to project-style learning. This means learning how to apply skills in

a concise time to solve many different situations. Students should be ready to familiarise themselves with project-based skills in university. These are organizational management skills, time management skills that can be taught as the basics that every student can use in their learning process.

***Practical Experience:*** Each study program is associated with a specific career field in society, so the experience in each field will be hidden in each program, each subject. Universities will provide opportunities for students to gain practical skills in each field, representing their degree program. This means that the program will create more room for students to complete through hands-on practice, mentoring, and participating in collaborative projects.

***Data Interpretation:*** Although mathematics is considered a subject that can be calculated and explained. However, this calculation will become unimportant shortly when the computer has replaced the calculation, descriptive statistics, and data analysis as well as the future prediction. Therefore, human interpretation of such data will become a more critical part of the future curriculum. Applying theoretical knowledge to numbers, using human reasoning to infer logic and trends from these data will become a fundamental basis of learning math.

***Exams will Completely Change:*** The foundation of each curriculum will assess each student's performance step by step; measuring student competence through Q&A questions will become inefficient and may not be enough for a subject. Many education experts now believe that students are crammed with a large amount of knowledge before taking the test and will forget it right after the exam. Exams currently do not measure their applicability, which is the ability to do when entering the first job. Testing the ability to apply knowledge into practice is best done when they work on field-based projects that can be measured during learning.

***Student's Ownership:*** Students will increasingly participate in the formation of their training program. Maintain a modern, up-to-date, and useful program only with the simultaneous participation of experts and students. The content and sustainability of training courses is a must for a comprehensive academic program.

***Counselling will Become More and More Critical:*** Students will become more independent in their studies, taking self-study as their primary, teacher as a guide and a focal point in the data source. The huge information that students will have to go through.

Above are the nine basic advantages, stimulating and having far-reaching potential in future education. For each individual and society, the new educational tools and resources promise opportunities for individuals to develop their full capacity, skills, and knowledge and open up creative potentials for people. The Industrial Revolution 4.0 is a period of high technology that has been integrated into almost all areas of society, with every person spending most of the day

working. Therefore, the workplace must be the place where technological change is most visible and has the most direct impact on the physiology of every human being.

During the industrial revolution 4.0, education must familiarise itself with several innovative concepts and be consistent with development trends. Some concepts are presented in (Han and Lee, 2016) documents such as E-Learning: learning through electronic learning devices; Mobile Learning: Learning through mobile devices; blended-learning: learning model combining classroom learning and online learning; context-aware u-learning: learning by context, through location devices; collaborative environments: learn in highly interactive environments; cloud computing: using cloud computing technology.

E-Learning, or "electronic-learning, is a form of learning using advanced technology in education? E-Learning can be self-taught or in combination with an instructor. E-Learning in Vietnam can be called distance training or online training, which can be combined with face-to-face teaching, just like Blended Learning. MobilE-Learning, which is the use of mobile devices in learning. Learners can study anytime, anywhere with a smartphone, with the support of an online learning management system on the network. As smart mobile devices evolve, a reasonably comprehensive development trend in training is Context-aware learning: contextual learning. When it comes to contextual learning, the commonly used term is U-learning - learn anytime, anywhere. U-learning provides learners with the most relevant content anywhere and anytime. *Collaborative learning*: learning in a highly interactive environment, which takes place when two or more people participate in learning together or exploring a problem. Thanks to information technology tools and social networks, interactive learning is growing. The interactive learning environment provides support tools and activities, including Discussion Forum; Investigation tools; Calendar; Integrated Wikis dictionary; Blog tools and tags; podcast. Moodle is an example of an interactive learning environment. *Cloud computing technology*, which is an advanced tool, as social networks evolve, everything we used to do on computers before we can now do on the Internet through the Web.

### **Challenges of Education during the 4.0 Revolution in Vietnam**

"Learning to know, learning to do, learning to live together, and learning to be human. these are the four pillars of education that the UNESCO organisation offers. Education must create values that are truly in line with the rhythm of the new age; virtuous and talented people will devote themselves to the development of society. Revolution 4.0 signals a strong shift for the global workforce, highly qualified and professional workers will move more to developed countries, unskilled workers will move to less developed countries. The world will change; technology development will be interdisciplinary and highly automated. The emergence of groundbreaking modern technologies will disrupt the organisation of production and services, and the world will witness a shift in global change.

To keep up with that shift, the world higher education in general and the Vietnamese higher education, in particular, must have a fundamental and comprehensive change. Changing the form of teaching from transferring knowledge to developing qualities and competencies as well as the ability to self-study for students requires each teacher to spend more time, learners must have more choices of methods and knowledge appropriate to their forte and passion. Education 4.0 requires the development of necessary skills for learners; thereby, the form of learning must be flexible in time and space, suitable for each learning condition. The application of cloud computing, wireless devices such as tablets, mobile devices helps learners access to many different sources of knowledge and skills. Interaction is extended not only within but also outside of the classroom and promoting social interaction. Learners need to equip the necessary skills to easily change careers and adapt to the challenges and demands of modern industry in the direction of creative thinking.

The challenge is even more significant for higher education and postgraduate; people after graduation must have high qualifications, easy access to advanced skills and knowledge. The training market is getting increasingly fierce competition not only between universities but also with the employers themselves who have internal training. For scientific research, universities face competition with other universities, research institutes, and large and modern enterprises. The training requires more and more realistic, sticking to the skills and knowledge of the labour market needed, closely linked to the operation of the business. Therefore, cross-linking between universities and businesses becomes extremely important in the modern training process.

Another challenge for universities is the ability to "brain drain". This phenomenon is happening and will tend to increase sharply in modern education. That is when the labour market division takes place globally, the competition for high-quality labour takes place across the country, and the domestic labour market tends to sharply reduce the quality of labour by moving to more developed countries. In the context of the constantly changing labour market, workers are required to be able to self-study, the will to learn for a lifetime and non-stop. Another significant competition is gradually developing and will grow in future education, which is the ability of large enterprises to self-train. Universities will have to compete with businesses with self-training of high-quality human resources, and gradually more qualified workers will tend to move to research institutes, scientific institutions have higher equipment and income conditions than universities. In order to reduce competition in this regard, the combination of training with businesses must be promoted, linking training with practical work needs, shorten the time for transferring knowledge from academic knowledge to real life.

The recent change of education 4.0 requires university lecturers to change and catch up with the trend. Otherwise, changes will be left behind and risk unemployment. Lecturers in education 4.0 must be instructors, restrict classes and instead orient and communicate more

with learners and supervisors and supervise and take responsibility for the learners' progress in the self-study process. Instructors must pay attention to the real knowledge needs of learners, motivate and support learners to find appropriate knowledge for each learner. Teachers themselves must be students who continuously improve and supplement their knowledge; self-study must be expanded not only internally in class, in school, but also the society. With education 4.0, there is a full range of technical facilities for learners to interact and learn from a global knowledge base quickly. With education 4.0, learners also change, university students have a greater right to share personal information on social networks, learners feel life faster; the faster association between academic knowledge and real life. Learners easily access a colossal data warehouse, information, and events will appear in just one click online. Social connections are also expanded, learners have the opportunity to interact not only with teachers but also with experts in and outside the field of society, individual learners can communicate themselves through others and reaching out to celebrities becomes easier. Connecting with anyone, any knowledge at anytime and anywhere becomes quite easy via social networks. Everything will change, education will become endless to anyone, and everything becomes small in the world of every human being.

## **Conclusion**

Education 4.0 is an inevitable trend in the future. Everything is changed in the new direction. Each organisation or individual must have a clear awareness of this change and prepare for themselves the appropriate knowledge and skills to easily accept the new change of the world. Education is considered as one of the leading industries in changing to approach the change of 4.0 revolution. The distance education model will be increasingly developed with the fundamental change of educational technology such as digital classes, smart tangible devices, virtual digital multimedia, smart mobile devices, and cloud computing. The future of learning is no longer confined to one classroom; it is beyond the classroom, learning trends will be "socialisation. "sharing learning modules" and "learning with open learning resources and personal learning devices." The labour market also underwent radical changes, from a shift in the labour structure to qualification and regional structure taking place not only within a country but also in the world. Many new modern skills of workers must be formed to meet the requirements of the modern labour market. It is the market that only exists highly qualified human resources, large knowledge and ability to change careers easily. With radical changes in the labour market in the modern era, many major challenges have been imposed on universities, requiring universities to fundamentally innovate from the university governance method to training programs and training methods to suit the development trend of modern technology. Training goals must also change towards training not only human competencies but also personal development and development skills. After graduation, students must have creative thinking and easy access to modern techniques as well as meet the requirements and high demands of society.

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