

Higher Education in the Medical Area of Study Must be Responsive and Anticipatory in the Fourth Industrial Revolution Era

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The alumni of the Medicine Area of Study (KAGAMA) held an event named “Annual Scientific Meeting 2020” on Saturday (29/2) in FKKMK Auditorium. It was an event to celebrate three moments once, which are the anniversary of the 74th Faculty of Medicine, Public Health, and Nursing (FKKMK), 38th RSUP Sardjito, 92th RSUP Dr. Soeradji Tirtonegoro, and 8th RSA UGM. At the event, a speaker named Prof. Dr. Ali Ghufon Mukti, M.Sc. Ph.D. said that higher medical and health education could not be separated from the impact of the Industrial Revolution 4.0 era.

In his remarks, in this fourth revolution era or known as disruption era, people need to pay attention to the detail innovation in education. In this era, the field of medical education need to concern the characteristics and tendency from society such as digital lifestyle, internet of thing, big data, artificial intelligence, robotic, augmented reality, etc.

Responding to this era, Ghufon said that DIKTI had transformed university roles to produce graduated students not only as of the agent of education and research but also as the agent of culture, knowledge, and technology transfer. DIKTI keeps encouraging the universities to renew the roles so that the graduated students can be the agent of economic development.

Thus, the challenge from higher education in the medical study field, including UGM's FKKMK. This challenge aims to seek appropriate research and technological innovation in the health sector. "In

this era, technology like hello doc, online consultation, automatic reading health test, ECG telemedicine should be available anytime, anywhere," he said.

As for the pharmaceutical field, Ghufron explained a challenge is a form of independence in the supply of medicinal raw materials to improve the nation's competitiveness. He revealed that from the BPOM RI Data that there are 280 companies of the pharmaceutical industry in Indonesia. However, the entire industry for the raw materials is not as much as the pharmaceutical industry, so the rest of 95 percent of ingredients have to be imported from abroad.

Ghufron said that the contribution of higher education in medicine, health, and pharmacy study field is now increasingly being demanded to realize a higher degree of public health in the era of the National Health Insurance - Indonesia Healthy Card (JKN-KIS). "The high cost of medical devices and drug prices is still a challenge to realize the Universal Health Coverage (UHC), which in 2019 has not been achieved," he explained.

The three main components that Ghufron needs to adapt to this era of disruption are students, infrastructure, and lecturers. According to him, these three main components are essential in creating an educational atmosphere.

"Nowadays, students are part of generation Z. They are familiar with the digital lifestyle who interact daily; even somehow, they cannot be separated from the digital world. On the other hand, lecturers who are dominated by baby boomers and generation X are digital immigrants. This gap between lecturers and students makes them need to improve their competence so that they can adapt to their students, especially in the teaching process," he explained.

Last, Ghufron reminded thought the existence and contribution of the faculty or higher education in medicine, health, and pharmacy studies only appear through the responsive and anticipatory demeanor. Therefore, he concluded, "Higher education is expected not only to orient curriculum development and learning outcomes that fit development needs, but also to think about how it can be downstream to industry."

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