

FOURTH INDUSTRIAL REVOLUTION

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The world is changing at an unprecedented pace.

The Fourth Industrial Revolution represents a fundamental change in the way we live, work, and relate to one another. It is a new chapter in human development, enabled by extraordinary technological advances commensurate with those of the first, second, and third industrial revolutions.

The HE 4.0 heralds a series of social, political, cultural, and economic upheavals that will unfold over the 21st century. Building on the widespread availability of digital technologies that were the result of the Third Industrial or Digital Revolution, the Fourth Industrial Revolution will be driven largely by the convergence of digital, biological, and physical innovations.

Like the First Industrial Revolution's steam-powered factories, the Second Industrial Revolution's application of science to mass production and manufacturing, and the Third Industrial Revolution's start into digitization, the Fourth Industrial Revolution's technologies, such as artificial intelligence, genome editing, augmented reality, robotics, and 3-D printing, are rapidly changing the way humans create, exchange, and distribute value. As occurred in the previous revolutions, this will profoundly transform institutions, industries, and individuals.

The result of all this is societal transformation on a global scale. It will transform how we communicate, learn, entertain ourselves, and relate to one another and how we understand ourselves as human beings. Furthermore, the sense that new technologies are being developed and implemented at an increasingly rapid pace has an impact on human identities, communities, and political structures.

This revolutionary outbreak, just like the previous revolutions, could yield greater inequality in education and the labor market.

According to the study of the Philippine Institute for Development Studies, based on the World Economic Forum's (WEF) *Readiness for the Future of Production Report 2018*, the Philippines has a low level of readiness for future production, characterized by weak performances in terms of technology and innovation, human capital, and institutional framework, among others.

We need not explore the transformation of Philippine education from the pre-colonial era up to this date. The Philippine educational reforms over time are products of the need to globalize education. The shift from tasks-based learning to human-centered learning will characterize education in the Fourth

Industrial Revolution. Certainly, it will require a much more interdisciplinary approach to teaching, focusing more on research and innovation.

Meanwhile, the Philippine and world labor market will demand workers with extremely profound knowledge of machine operations. Eventually, workers will be displaced by machines causing a wide disparity between capital-intensive industries and labor-intensive industries. More so, skills, more than capital, will play critical factors in the production of goods and services.

Another posing problem is not only the digital divide but the distribution of benefits of using technologies. And the advancement of technologies can also result in the advancement of crimes. So, it is highly important that as we technologically progress, we also need to align common human values with technological progress and ensure that the Fourth Industrial Revolution benefits human beings first and foremost.

We cannot escape this revolution. Let us think of this time as an opportunity to be inclusive and human-centered in adapting to modernize educational models, reducing social inequalities, and value-based approach to the machine-centered labor market. After all, Fourth Industrial Revolution is about much more than technology.

The world is on the cusp of the Fourth Industrial Revolution, or Industry 4.0. It's quite different than the three Industrial Revolutions that preceded it—steam and water power, electricity and assembly lines, and computerization—because it will even challenge our ideas about what it means to be human.

Be ready!

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