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On

Impact of Industrial Revolution 4.0 &
Consequences of the digital revolution

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The Impact of the 4th Industrial Revolution (4IR)

Human well-being is intertwined with the environment. From local communities to the global commons, the environment provides natural resources that fuel the growth of industries and economies and influences public issues as diverse as health, natural disaster response and recovery, and food and energy security. With the planet increasingly under stress, action on environmental issues – such as climate change, biodiversity, and ocean health – constitute some of the most urgent and large-scale challenges. The innovations of the Fourth Industrial Revolution (4IR) hold great potential for improving management and governance of the global environment and delivering the systems change required to create clean, resource-secure and inclusive economies. For example, it is predicted that by the year 2050, global climate change will induce an increase in food production due to the increase in population and losses of arable land. This encourages 4IR technologies to develop revolutionary sources of food production. With biorefineries emerging to produce genetically modified microbes which present a variety of useful chemicals and food components which could be an essential part of the 4IR landscape, they could ensure the use of flexible food stocks which might include cellulose, simple sugars, and biomass to enable large productions of fuels, pharmaceuticals, and food products in massive quantities, which will hence enable a reduction in the usage of fossil fuels for decades to come.

Consequences of the Digital Revolution

Digital technologies are fundamentally changing how people and businesses work together.

Across the globe, the pace of digital transformation is accelerating. The private sector continues to invest in disruptive technologies to get ahead of the competition. They adapt their business models to meet ever increasing customer expectations.

The pace of change continues to blur the boundaries of the physical and digital worlds. It is redefining traditional industry sectors and the way we live and work. Emerging technologies, growing amounts of data and smarter ways of getting insights are changing the way people, businesses and governments interact.

On the contrary, some human skills are now considered much more valuable despite the incredibly powerful and influential digital technologies, while other mediocre skills have been deemed worthless to modern-day employers. Digital technologies are considered one of the key driving forces in today's economy. The dilemma is, people do not fully understand the technological impact on employment and instead choose to be concerned with off-shoring, taxes, and regulation. For the society to guarantee its place within the technological world, it must race ahead with the machines, rather than race against them, thus using them as allies rather than adversaries. Fostering organizational innovation can help with maintaining labor. Meaning, co-inventing new organizational structures, processes, and business models that use advanced technology and human skills. Investing in the human capital to provide people with the right resources for them to take advantage and make use of them in their future is crucial to maintaining human workers. Without proper resources or education, innovation may cease, causing a crisis for millennials and upcoming generations.

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