



Law must be adapted for the Fourth Industrial Revolution

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Impact of Fourth Industrial Revolution on Law

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First Industrial Revolution took place in Europe and North America in 17th Century with invention of steam engine. First industrial sector i.e. textiles and iron industry begin journey in Europe. Second Industrial Revolution was driven by invention of new sources of power like electricity, oil and gas in the beginning of 19th century. Third Industrial Revolution begins in 1969 with invention of newer sources of energy like nuclear power, innovation of computer technology, massive progress of semi-conductor and microchips. Electronic and electrical sector started its miracle from the beginning of Third Industrial Revolution.

A new revolution which is Fourth Industrial Revolution knocking at the door, characterized by a run of unused advances that are combining the physical universes, affecting all disciplines, economies and businesses. It combines the capabilities of both the human and the machine, enveloping a wide swath of zones such as artificial intelligence, genome altering, biometrics, renewable vitality, 3D printing, independent vehicles and the Web of Things. Tech positive thinkers set that the wave of exponential development in keen tech, fake insights, machines and the inter connecting of all viewpoints of present day life through innovation will bring significant changes to society, and makes an phenomenal move from the way we are recognizable with — how we carry on, associated and think.

In any case, just like the mechanical insurgencies going before it, the shifts in control brought almost by such human-technological frameworks moreover bring around issues of disparity in terms of who benefits, as well as challenges to security, protection and community. The onset of the Fourth Industrial Revolution can offer assistance social orders build up communities that diminish destitution, permit for great measures of living, increment feasible vitality sources, and progress social cohesion and consideration — on the off chance that explored shrewdly. Great administration, appropriate direction, and adaptability of the law have to be the core of the approach to dealing with Industry 4.0.

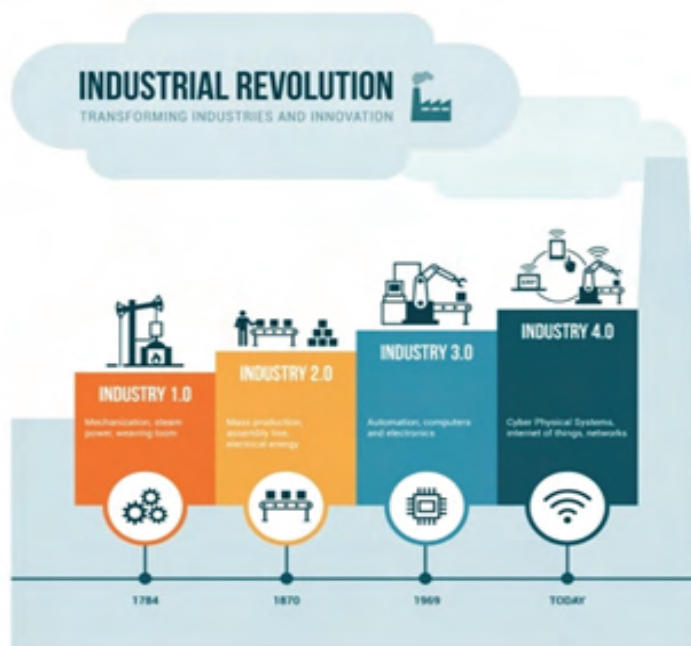
The legal impediments forced by

the Fourth Industrial Revolution are both unused and more prominent. Information has presently ended up a profitable trade resource which cultivates development, and attorneys must start to inquire the proper questions in arrange to get it the creation handle of information resources, its financial esteem, and how it drives commerce. There exists a desire that companies will utilize huge information to screen and ensure their supply chains and to get more prominent understanding into their clients. With huge information devices getting to be more capable and standard, it may be office holder on companies to predict potential security and security issues with modern items and unused innovations. In this regard, attorneys would have to beget it the information of companies and what may be learned from the information to address challenges and moderate legitimate dangers. To some extent, information can be

compared to the unused oil, with the 'datafication' of each perspective of human social, political, and financial action. Information too characterizes present day geopolitical substances. The activity for official worldwide agreement such as the Trans-Pacific Association and the United States-Mexico-Canada agreement reflect a battle to rebuild the worldwide economy around the assurance of computerized resources. Nations and private firms that can use counterfeit insights to industrialize learning and development will have an exceptional degree of political and financial impact. On the other hand, the existing multilateral institutions don't have the capacity or foundation to bring approximately such use. They were not planned to direct intangible resources. In like manner, alterations to the administrative design of multilateral organizations just like the International Monetary Fund

related Support may be basic in forming the Fourth Industrial Revolution. With the World Trade Organization right now debating unused rules for advanced exchange, nations such as China, Russia and Brazil have as of now started to define their possess.

Courts will play a basic part within the thrust for modern rules for computerized exchange. But in numerous nations, they have been criticized for slow speeds and tall costs. In case the Fourth Industrial Revolution is to bring almost positive alter to worldwide communities, the law must make required alterations to stay compelling and utilize the mechanical advancements taking place. Lawyers have to imagine the effect on the courts of artificial intelligence, block chains, bio-engineering and independent machines. As of now, a court in Cleveland at United States is using an artificial intelligence for sentencing. As such, artificial intelligence can be utilized as an equipment to assist foresees the result of cases.



Transformation of Industrial Revolution

Fourth Industrial Revolution advances might hence require Fourth Industrial Revolution laws. The obscure within the advancing situations within the digital age requires an unused story. Such a story can no question develop from the law. By building up boundaries, the law can incentivize unused businesses to act in ways which are not inconvenient to humans. It is vital to be beyond any doubt that innovation is approximately choices and with the Fourth Industrial Revolution underway, it is vital for people to be clear about the choices they are making. Major innovation companies have

both the cash and impact to actualize innovation at a more prominent scale than ever experienced. The positive externalities from this may be boundless — but so can the hazard that industry is bowed toward the benefit and impact of companies, and not to individuals of communities.

Technological and commercial advances bring new compliance challenges, because legislation may have been written before more recent inventions. This has the potential to expose businesses to risk. For example, a system which automatically assigns workers to a particular role may contribute efficiency but may also open employers to risks of violating anti-discrimination laws which would require human-based decisions. It has been argued that the reason the First Industrial Revolution was so successful was the respect given to Intellectual Property, which encouraged innovation. Protecting both innovators and the users of innovation is essential to ensuring its growth. Generally law changes its nature with surrounding circumstances. New situation demands new laws or amendments of old laws. Progress is inevitable. The First Industrial Revolution witnessed the emergence of mechanical production and the second was fuelled by electrically powered mass production. It can be said that first and second industrial revolution has been established the notion of factory law, company law, intellectual property law, labour law, air law, railways law, petroleum law, construction law, automobile law etc. Law of Human Right is another subject matter which is



Pillars of the Fourth Industrial Revolution

involved with first and second revolution consequences. Later on the concept of environmental law has been developed by the negative impact of first and second industrial revolution.

The Third Industrial Revolution was driven by the internet and automated production. Cyber law and Information Communication Technology law are the classic examples laws relating to Third Industrial Revolution. However Digital security law and intellectual property (copyright, integrated circuit layout design, data protection, trademark) law also deals with Third Industrial Revolution. All three revolutions focused on scalable efficiency (doing things right) and moved towards scalable adaptability (doing the right thing).

The Fourth Industrial Revolution will be different. It will bring significant changes to the way we live, interact and do business. It is the future of technology where objects, machines and various devices (all things) connect with each other in a secure, networked environment. The fourth will be

as a consequence of the digital transformation, a result of the fusion of technologies that is breaking down the limits between the digital, physical, and biological spheres. Its submitted that Fourth Industrial Revolution will affecting the right to work, rights at work and the right to social protection and the capacity of states to protect, respect and fulfil those rights. To some extent, using technologies actually helps better protection of human rights through universal healthcare and universal education. But with the emergence of new technology, the protection of human rights in certain areas gets equally challenged. This technology can also be used in fully autonomous weapons, commonly known as Lethal Autonomous Weapons (LAWs), able to select and engage targets without a human agent. These weapons such as armed drones are being developed and deployed by nations including China, Israel, South Korea and United States. While they are meeting the military necessity and improving their weapons, simultaneously they are being threats to fundamental right to

life, the principle of human dignity and has the potential of contravening different principles of the laws of armed conflict. Artificial Intelligence (AI) is one of the core subject matter of Fourth Industrial Revolution. However, the question of ownership over a product generated by AI comes when it can produce something which falls within the definition of Intellectual Property (IP). Still AI has got no legal status irrespective of its 'intelligence' feature under the IP law. An AI can produce something which will satisfy all the three criteria of copyright, namely: creativity though a minimum amount, fixation, and originality. But none of the legal systems over the world does permit an AI to get copyright over its work and the same is true for patent. In 2018, the Ninth Circuit of USA held in case of *Naruto et al v David Slater* that animals, other than humans, cannot sue for copyright. From the judgment, it is clear that the US legal system allowed only human to get protection under IP laws. Moreover, the countries who are members of WIPO enact law under which a non-human cannot get the protection of IP law. There

is another threat that in upcoming future the robot may violate the human rights by doing subversive activities against human. Now we have to wait for the upcoming changes of law regarding robot (AI) activities which is one of the corner stone of Fourth Industrial Revolution. At last it can be said that there are close interlink between industrial revolution and law. Every state has enacted their own laws according to the change of surrounding circumstances and surrounding circumstances largely depends on industrial revolution.

Right now Fourth Industrial Revolution is one of the foremost talked about issues in Bangladesh. There are some concerns regarding the impact of Fourth Industrial Revolution in the Bangladeshi legal arena. Few points are; there are no specific laws for data protection, no laws or rules exists regarding artificial intelligence, no guidelines for the violation of human rights by the Robot or artificial intelligence, existing laws are backdated and not suitable for the Fourth Industrial Revolution, current legal system and Court infrastructure are not so appropriate for digital legal

system, Bangladeshi social, economic, political and cultural environment are not quite ready to accept the Fourth Industrial Revolution etc. Job crisis is a big problem in Bangladesh and Fourth Industrial Revolution will create more job crisis because machine and artificial intelligence will take most of the jobs. Jobless person may conduct various offences, in that sense crime may increase in the time of Fourth Industrial Revolution. It is submitted that Bangladesh will face multiple types of challenges including legal challenges during Fourth Industrial Revolution. So it is the high time for Bangladesh to construct the new laws and reform the legal system to adjust with Fourth Industrial Revolution. Comprehensive efforts are needed by the legislative, executive and judiciary to tackle with the negative impact of fourth Industrial Revolution.

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