



Globalization 4.0

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ABSTRACT

In human society, exchange and interaction processes between individuals, commodities, and services have always existed. Even though the term "globalization" is hotly debated, it has an impact on all facets of human activity and must be considered in the context of human evolution. Globalization has never occurred on such a large scale and with such unique dynamics. In modern vernacular, there have been discussions about why and how globalization is irreversible despite all its challenges, when populism criticized the institutions and ethos that drove forces of global interconnectedness. The concept of "Globalization 4.0," in which disruption and digital technologies have emerged as the defining characteristics of global governance issues, is examined in this study. It tries to highlight the subtleties of this concept with an emphasis on how it might affect global governance structures. Improved interaction with these new domains is necessary to take the subtleties of the shifting environments into account holistically. The sustainable future of the international arena will also benefit from governments taking the appropriate action to address the new circumstances while fully understanding the policy difficulties.

Introduction

Globally, there has been an increase in the influence of various financial and economic activities at the local, regional, and national levels. When combined with environmental, political, and societal forces,

they all illustrate the complex side of globalization. The dynamics of the globalization process are mostly driven by the fact that different actors are not treated equally. In this view, the impact of civil societies and poor countries is far smaller than that of transnational companies and affluent states. One could argue that the concept of "globalization" refers to the process of achieving complete market liberalization and integration. It is possible to characterize this liberalization and integration as humanity's most desirable and unavoidable destiny. Globalization is the process by which nations exchange technology, labour, capital, goods, and ideas in an effort to progressively integrate their economies. The global interdependence of the nations is cultivated by this trade. There have been three full stages of national economies' globalization. "The fourth phase of the industrial revolution, known as Globalization 4.0, is currently underway". [1] The paper argues that significant changes in IT, geopolitics, the environment, and global society are ushering in an era of globalization known as Globalization 4.0. This new phase of globalization will largely depend on how well corporate, governmental, and international governance adjusts to these changes. Deeper involvement and increased attention to detail will be necessary to strengthen our governance design and guarantee its efficacy in this era. Finally, it emphasizes the need for a more robust framework of international collaboration in order to reduce tensions both between and within nations and to expedite progress on common concerns.

Globalization 1.0 to 4.0: A timeline

"As the World Economic Forum's communities gathered for its Annual Meeting 2019 in Davos, there was a widespread sense that international relations and the world economy are at a turning point. This was reflected in the theme of the meeting – Globalization 4.0: Shaping a New Global Architecture in the Age of the Fourth Industrial Revolution." [2]

"Under the rubric of Globalization 4.0, a series of "Global Dialogues" in Davos focused on the interrelated areas namely geopolitics, future of global economy, global dialogue on industry systems etc." [3]

The most recent stage of globalization, known as Globalization 4.0, is defined by the increased interconnection of economies and society and the integration of digital technology. IoT, blockchain, robotics, AI, and other developing technologies are driving this phase. It highlights the significance of sustainable development, inclusive growth, and tackling the problems of inequality and climate change. In general, modern global economic integration has gone through three stages. The first was the years preceding 1914, when there was a very small global institutional architecture despite significant levels

of immigration and trade, with very few international commercial agreements and institutions, people moved unrestricted across borders with little or no restraints by the governments.

The 2nd era of globalization took place between the World War II and the late 1990s. A great deal of the current international economic enabling architecture, such as trade, financial, and development agreements and institutions, were formed during this period, and with the aid of both policy liberalization and enhanced communications, multinational corporations greatly expanded their operations throughout the world. Some estimates place the time it took for trade and money movements to reach the level of cross-border integration that existed just before World War I at almost this long.

The 3rd phase, which spanned from the latter half of 1990s until very recently, was marked by the WTO, the growth of the internet, and China's admission to the WTO. During these decades, there were also significant advancements in information and communications technology. “The integration of markets and cross-border expansion of value chains reached a new level thanks to significant advancements in information and communications technology, financial risk management tools, and ongoing trade and capital liberalization, particularly through regional free trade agreements and bilateral investment treaties. Since the mid-1990s, trade has increased by half as a percentage of global GDP”. [4]

The emergence of globalization 4.0 is quite recent. But as Brexit, US policy changes, immigration, data privacy and security, China's BRI, fastened European integration, and automation's impact on the future of work and economic development demonstrate, we have entered a distinctly new era in which many of the assumptions of earlier periods no longer hold true. Similar to its predecessors, technological advancements and governance choices will influence Globalization 4.0. As emerging technologies disrupt our systems of health, transportation, communication, manufacturing, distribution, and energy, to name a few, countries must forge new alliances between institutions and public policy on the one hand, and corporate behaviour and norms on the other. This will allow humanity to overcome the false choices that are occasionally presented.

Currently, therefore, technology and globalization go hand in hand. The movement of people, goods, and ideas is facilitated and expanded by new means of communication and transportation. Furthermore, the global reach and diversity of views promote even greater technical advancement. Technology has been a defining factor in determining opportunities and threats at every stage of globalization.

Globalization is currently entering a new phase known as "Globalization 4.0," driven by the Fourth Industrial Revolution. "Both the Fourth Industrial Revolution and Globalization 4.0 are opportunities to fix what went wrong in previous eras. And that starts with building a shared commitment to a shared future, based on those values which are truly cross-cultural: striving for the common good, safeguarding human dignity, and acting as stewards for future generations".[5]

Understanding Globalization 4.0 in the context of Industry 4.0

Globalization 4.0 uses technology to solve some of the drawbacks and difficulties of earlier stages of globalization in an effort to build a more equitable and sustainable global economy. Its multifaceted characteristics help to clarify its meaning. First off, new business models and efficiencies have resulted from the broad adoption of digital technologies across industries. Second, improved worldwide connectedness made possible by digital platforms, which facilitate instantaneous cooperation and communication. Thirdly, the speed at which technology is developing is spurring innovation and upending established sectors. Fourth, an emphasis on environmentally friendly practices and resolving environmental issues as a component of international economic integration. And finally, measures to guarantee a more equitable distribution of the advantages of globalization, tackling concerns of social justice and inequality. Newer migration patterns are another way to define globalization 4.0. Faster internet connections and the nature of the work, which might not require physical presence, could result in a global tele-migration of skilled people who never have to leave their homes. Rich country services like web design, accountancy, and architecture are becoming more competitive with practitioners in emerging economies because to increasing data connection speeds and new AI techniques like big data and machine translation.

It also foresees a "major turbulence for the Service Sector. While Globalization 1.0, 2.0 and 3.0 were mainly a concern of people who made/manufactured products for a living (since globalization focused on things that we made), Globalization 4.0 is going to hit people in the service sector".[6] So, "*Unlike the previous waves, which have mainly affected goods-producing sectors, Globalisation 4.0 is predicted to have a much greater impact on services*".[7] It should be noted, nevertheless, that Industry 4.0 is a subclass of Globalization 4.0, and as such, it is intentionally integrated to quicken transition and data transfer procedures. In this case, AI orchestrates the Industry 4.0 process, which in turn accelerates data connection speed. Various tasks, like accounting services and architectural contexts, are carried out with an eye on utilizing artificial intelligence's power in a larger context. In order to take advantage of the

quick network connection and gain technological advantages, corporate organizations have implemented a variety of migration systems that have made business activities easier. The developed world's financial sectors are allowed to limit their business services through diversification.

In addition, some issues are clearly stated in terms of national disputes, political crises, fluctuations in the economy, and a shortage of human resources. The revival of global disputes is readily apparent everywhere since only developed and developing sectors can handle and operate digital technology effectively. This is one of the main challenges faced in the implementation of Globalization 4.0. It may result in industry unemployment and more intense rivalry. Infrastructure-related issues may also confront industries, potentially undermining the benefits of globalization 4.0. Furthermore, because of their lower productivity and growth, developing nations like those in North America and some Asian nations would not be able to benefit.

The competition for technological superiority also establishes the groundwork for geopolitical power, which includes the capacity to shape the direction of globalization. Technologies have always conferred varying degrees of economic, military, and political dominance onto those nations and institutions that could master them. Countries are spending much in technologies like quantum computing and artificial intelligence these days. Utilizing new technology well is probably going to have a much bigger impact than creating them.

Globalization 4.0 and Global Governance

The concepts of global governance and globalization 4.0 are related to one another and deal with how economic systems, technological developments, and international interactions are changing. The collective management of common transnational concerns by nations, international organizations, and other entities is referred to as global governance. This includes developing and enforcing international laws, rules, and policies to deal with issues including economic injustice, global health, security, and climate change. Key players in global governance include organizations like the WTO, the IMF, the WB, and the UN.

World Economic Forum coined the term globalization 4.0 to refer to the most recent stage of globalization, which is marked by “the rapid development of Industry 4.0 technologies like artificial intelligence (AI), blockchain, the Internet of Things (IoT), and sophisticated robotics, as well as the integration of digital technologies”. [8] This stage of globalization highlights how digital revolution has

an international impact on economies, cultures, and governance systems. “The successive stages in the construction of global economic architecture were characterized by the progression of economic integration from country-level (Governance 1.0) to regional integration (Governance 2.0) and global/multilateral institutions (Governance 3.0). These stages in the evolution of global governance have reached limitations and constraints that call for new approaches towards modelling the global economic architecture. The advent of Globalization 4.0 and the Fourth industrial revolution are set to be accompanied by the emergence of Global governance 4.0 that incorporates the rising role of technology into the multilayered edifice of the global economy”. [9]

In addition to contributing to the financial market's capitalization and the global GDP, technology will inevitably become more and more significant in the labour market. “It is true that a new super-structure expressed in a shifting global economic architecture is required to reflect the profound changes occurring at the base of economic relations, particularly in the technological domain. This makes the following the primary question for the new global governance framework: what are the shortcomings of the current economic system that the new governance structure must address?” [10] Is it something else entirely, like a lack of innovation in technology or rigidity in the international governance framework? At this point in time, it seems that the North-South divide and the predominance of national interest over international cooperation are the more pressing global challenges.

The 2008 financial crisis, the unprecedented wave of protectionism, and the risks of a global economic slowdown and possibly even a recession in the years to come should be given more priority in the new global governance framework than just allowing for more cooperation across a wider array of programs and initiatives or simply giving technological factors more weight. In World Economic Forum report "Globalization 4.0 Shaping a New Global Architecture in the Age of the Fourth Industrial Revolution,"[11] the sketch of a creative vision for the future global governance architecture was provided. Greater flexibility at different levels of governance to pursue plurilateral agreements in particular sectors without having to guarantee full support for new liberalization initiatives from all countries was a defining feature of the proposed governance structure. According to the report, “a more integrated, interoperable and agile approach to economic governance and cooperation can help the international community transcend the technology policy dilemmas, trade policy frictions, impediments to shared value creation and financing gaps that are preventing markets and economies from growing to their full potential. At the same time, a more multidimensional, outcome-oriented and human-centred

approach is needed to stabilize humanity's environmental footprint within sustainable boundaries while diffusing the benefits of technological progress and economic growth more widely through stronger broad-based progress in living standards.” [12]

Uniting working groups, organizations, projects, and programs ranging from technology and global trade to climate change and human capital development is the goal of the WEF's global governance design. The entire concept downplays hierarchy and focuses on taking advantage of horizontal connections between different industries, corporates, think tanks, and geographic areas.

Thus, there are several actions and policy adjustments involved in the interaction between Global Governance and Globalization 4.0. To ensure that emergent technologies are used responsibly and ethically, global governance authorities must set rules and laws. Strengthened cooperation between nations and institutions is crucial in tackling global issues such as cyber threats, the digital divide, and climate change. Promotion of equality and inclusion, wherein legislators must concentrate on developing frameworks that encourage growth that is inclusive and lessen the inequities that are made worse by the quick changes in technology. Global governance frameworks need to be flexible to keep up with the rapid changes resulting from Globalization 4.0.

“Addressing the challenges of globalization 4.0 is evidently a multidimensional ambition for which there is no predefined roadmap”. [13] So prior to enjoying the advantages of a rapidly developing Globalization 4.0, attention should also be paid to tackling cybersecurity risks, controlling technical disruptions, protecting data privacy, and minimizing the social effects of automation. Like its predecessors, globalization 4.0 may have mixed effects. For example, even though nations are now more interconnected than ever, political unrest and international violence have also escalated. Another issue can be economic marginalization. There won't be many work chances, and many people could not have the necessary abilities for jobs in the future. Issues can get worse if nations and communities are not ready for Globalization 4.0. Populations that are already marginalized are disproportionately affected negatively by globalization. While globalization 4.0 can lead to greater wealth creation, it may also exacerbate income inequality. Given their large population and poor rate of job creation, nations like India may already be facing a demographic catastrophe if they do not rise to the skill demands of globalization 4.0. The world is ill-prepared for the many unexpected effects that may result from Industry 4.0 and Globalization 4.0. There are still unanswered questions about the legal, ethical, and environmental implications, and no clear framework has been established. Developing nations must install the necessary infrastructure and technology in addition to skilling their workforce to

fully benefit from globalization 4.0. The industrial revolution and globalization have benefited the European continent, North America, and certain Asian nations, while many African, Latin American, and Asian nations have not benefited as much. Many Asian and African countries who were previously left out of the advantages of previous waves of globalization would face new difficulties because of globalization 4.0.

Hence, “in order to expedite action on shared challenges—some of which are truly planetary in scope—the enabling architecture of Globalization 4.0 must marshal a much wider geometry of actors and governance arrangements than the post-war governance architecture of Globalization 2.0 and 3.0, which was primarily designed to mediate national interests through formal norms negotiated by states”.[14] The ability for states and other players to identify and give real voice to their shared interests in our increasingly multipolar and metaconceptual world is one of the advantages of this more flexible and multidimensional notion of global cooperation. In later phases, such measured, cooperative actions can contribute to the development of trust required to raise the bar for global norms and collective action.

The way forward

“Globalization 4.0 is what most consider the next step forward for humanity, namely the emergence of new technologies such as artificial intelligence, robotics, the Internet of Things and driverless cars being among them. Klaus Schwab, founder and executive chairman of the World Economic Forum, has been quoted, in this world, globalization won't disappear; it will deepen. If in the past global integration grew as trade barriers came down, it will now rely on the connectivity of national digital and virtual systems and the related flow of ideas and services. This is the core of Globalization 4.0.”[15]

Investing in bolstering local and regional economies is one way to address the difficulties presented by Globalization 4.0. Countries need to develop robust local and regional systems that can engage in the upcoming changes in the nature of globalization. This involves ensuring that areas have the appropriate balance of infrastructure, employment opportunities, and education to generate and maintain jobs locally. by giving inclusivity and sustainability top priority. It is critically necessary to design a plan from the ground up that can capitalize on fresh prospects and give sustainability and inclusion greater weight than before. Global and local institutions must create both general and specialized plans to

improve outcomes for all parties while ensuring that the most vulnerable groups are not disregarded by focusing on the most vulnerable populations.

If funds that could be used to combat climate change instead of bolstering local economies and educational systems, the problems of Globalization 4.0 will only get worse. Therefore, global action is required to combat climate change. Through encouraging creativity in curricula and educational institutions. “By 2022, at least 54% of employees globally will require re- and up-skilling. Not only do we need to support people in getting the training they need for jobs in the next five years, but we need to prepare young students with the skills to adapt to the types of jobs we will need in the next 20 years. New Zealand is implementing a national technology curriculum to teach students to be digital creators, as well as consumers”. [16]

To conclude, many issues have been brought about by globalization 4.0, the most significant of which are a slowdown in global growth, decreased productivity, and an aging population. Major corporations now hold a greater share of the market in places like the US, and wealth inequality is rising globally. Pollution and a decline in well-being result from the unsustainable depletion of finite natural resources. Globalization 4.0 is driven by various factors, such as economic systems that yield larger returns on capital than labour, automation, and artificial intelligence (AI). The challenges that this new wave of globalization brings about will probably need the participation of many different stakeholders in order to be solved. In the end, political considerations are crucial for adapting to the demands of Globalization 4.0. There are issues with political fragmentation everywhere in the world. Political in nature, problems like automation, climate change, and migration cannot be resolved solely by managerial or technological means. This also applies to communication, considering a conceivable future in which China and the US may accelerate their technology war to the point that the internet splits regionally. Any agenda to address Globalization 4.0-related problems will need a broad spectrum of policy solutions, from supercomputing and agricultural innovation to areas like genetic technology control and plastics recycling.

“We must make sure that the technologies advancing the next stage of globalization are values-driven and human-centred”. [17] Specifically, we ought to strive toward inclusive, reliable, and sustainable systems and technology. Globalization 4.0 and 4IR both present chances to correct the mistakes made in earlier eras. Establishing a shared commitment to a future based on the cross-cultural values of upholding human dignity, promoting the common good, and accepting the role of stewards for future generations is the first step in achieving that.

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