



Essence of Globalization 3.0

Matthew N. O. Sadiku¹, Olusola A. Okhiria², Sarhan M. Musa¹

¹Roy G. Perry College of Engineering Prairie View A&M University, Prairie View, TX 77446, USA

²Microbiology, Public Health Wales, Cardiff, UK

Email: sadiku@ieee.org; olusola.okhiria@wales.nhs.uk; smmusa@pvamu.edu

Abstract The Internet has wired the world to make all nations next-door neighbors, which has continued to increase the integration between nations, making globalization a fact of life. It has gradually shrunk the world to a “size tiny” and creating a borderless world. Globalization may be regarded as the integration of economies on a global scale. Arbitrage drives globalization, allowing any business to become international. Digital technology is making it easier for people to live in one country while conducting business in another country. Although we still rely heavily on Globalization 3.0, Globalization has already reached 4.0 and multinationals are struggling to catch up.

Keywords globalization, outsourcing, multinational corporations

Introduction

A global pandemic, job automation, rapid pace of change, environmental concerns, and geopolitical tensions are just a few of the challenges facing humanity today. Global institutions, powerful business leaders, government officials and activists see this as an opportunity to remake the world and reset the global economy. “The Great Reset” is the plan to transform the global economy, the most ambitious and radical plan the world has seen in recent times, which will be a revolutionary phenomenon. Every nation needs to participate as every industry needs to be transformed [1] and no two nations participating in global supply chain will fight a war against each other.

Globalization, the act of globalizing, refers to the integration of goods, services and culture among the nations of the world. One can consider globalization as the world order that succeeded the Cold War as a global order. Globalization may also be regarded as a process involving the absorption of developing economies into the world economy dominated by developed countries. Figure 1 shows some causes of globalization [2]. The triumph of globalization has been one of the greatest achievements of the human race. In today’s global economy, everyone wants to buy goods from other countries—electronics from Taiwan, vegetables from Mexico, clothing from China, cars from Korea and furniture from India. This internationalization of businesses is affecting countries’ cultural, consumer and national identities [3].

The worldwide phenomenon known as Globalization is evident to business leaders and casual observers alike. Globalization is caused by international trade, which is driven by a two-way buy-low, sell-high arbitrage, enabling all enterprises to operate at an international level. It has always been associated with Western cultural imperialism.

Globalization is different from internationalization. Globalization denotes a process of denationalization, whereas internationalization refers to the cooperative activities of national actors with cheaper international shipping and more people purchasing goods from far away. But moving people around is still expensive. Globalization matters because as goods, capital, and people move from one nation to another, it affects our jobs, earnings, income distributions, culture and so on.



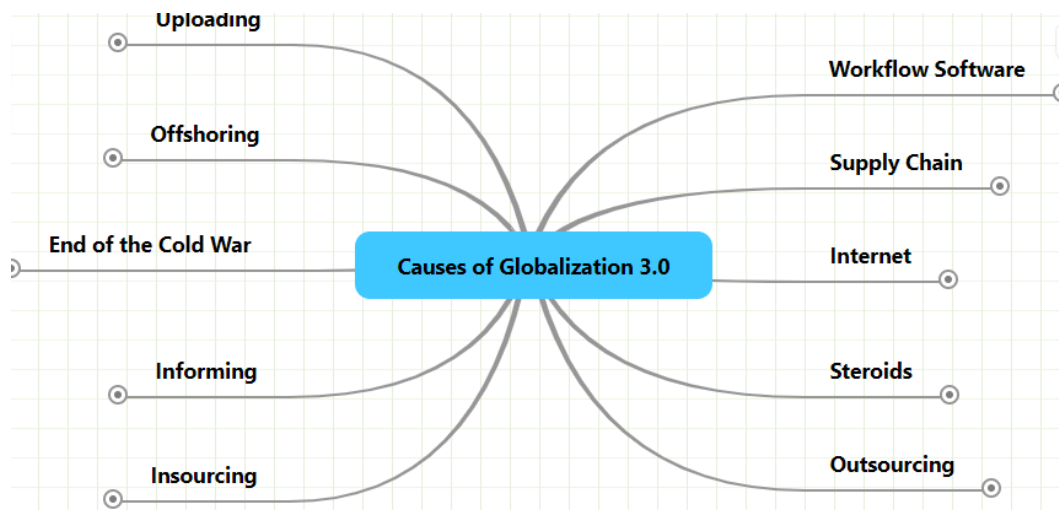


Figure 1: Causes of globalization [2]

Phases of Globalization

Modern globalization started in the 19th century in tandem with the Industrial Revolution. Many people consider globalization a modern phenomenon, but Friedman classifies globalization into time phases [4]. Professor Richard Baldwin, of International Economics at the Graduate Institute in Geneva, calls the pre-1914 period Globalization 1.0, the post-1945 era Globalization 2.0, our most era as Globalization 3.0, Globalization 4.0 is distinctively disruptive, while Globalization 5.0 follows 4.0 [5].

- *Globalization 1.0*: This is the first phase of globalization. Basically, it is the globalization of countries that began with Christopher Columbus; globalizing their countries and exploring the world on behalf of their countries. It was pre-World War 1 globalization, which came with almost no government support. Transoceanic steamships, undersea telegraph cables, and railroads tied the world together. It gradually shrank the world from a “Size Large” to a “Size Medium.” Globalization 1.0 started in 1820 and ended with World War I. It benefited rich nations such as the G7 (France, Germany, Italy, Britain, US, Japan, and Canada) and led to rapid growth of their exports and incomes. It drove northern industrialization and southern de-industrialization. The growth differences between north and south generated the huge north-south income asymmetry that exists till today. It produced the Great Convergence.
- *Globalization 2.0*: This is the second phase of globalization. It was essentially about the globalization of companies, the post-World War II phase. It began after World War II and ended around 1990 when manufacturers in the US and other advanced economies began outsourcing work to Asian countries. Globalization 2.0 focused on ameliorating many of the excesses of Globalization 1.0. Cross-border movements of goods, services, capital, and people seemed to be on an ever-upward trajectory. The invention of the telegraph, telephones, PCs, satellites, the World Wide Web, the fiber-optics, and the software capabilities that connected them -drove globalization. Globalization 2.0 shrank the world from a “Size Medium” to a “Size Small.”
- *Globalization 3.0*: This is the new phase of globalization. It is commonly regarded as the globalization of individuals as it is shifting power from nations to cities around the world. It uses the Internet and the worldwide web to allow individuals worldwide to talk, work, and enjoy leisure activities. Globalization now meant factories crossing borders. According to Thomas Friedman, Globalization 2.0 may be regarded as Western companies globalizing, while Globalization 3.0 is non-Western forces globalizing. Globalization 3.0 is invariably called the second unbundling, the new globalization, hyper-globalization and off-shoring, bring the intensification of everything that was invented in Globalization 2.0, but intensified to such a degree that it became a difference in kind. Globalization 3.0 shrank the world from a “Size Small” to a “Size Tiny.” It is creating new opportunities and causing new pains. It leaped forward in the late 20th century when information and



communication technologies (ICT) radically lowered the cost of moving ideas globally. Multinational corporations thrive in Globalization 3.0. Figure 2 illustrates the three eras of globalization [6].

- *Globalization 4.0*: This has only just begun. Globalization 4.0 followed Industry 4.0 (which referred to the digitization of manufacturing). While Globalization 1.0, 2.0 and 3.0 were mainly concerned with people making things for a living, Globalization 4.0 is going to hit the service sector, making service-sector workers in advanced nations to be exposed to the challenges and opportunities of globalization. It will reshape the world of many white-collar and service-industry jobs. It will increase the demand for new skills since many old skills become irrelevant. This requires that governments and companies retrain older workers. Globalization 4.0 is not necessarily good for all countries.

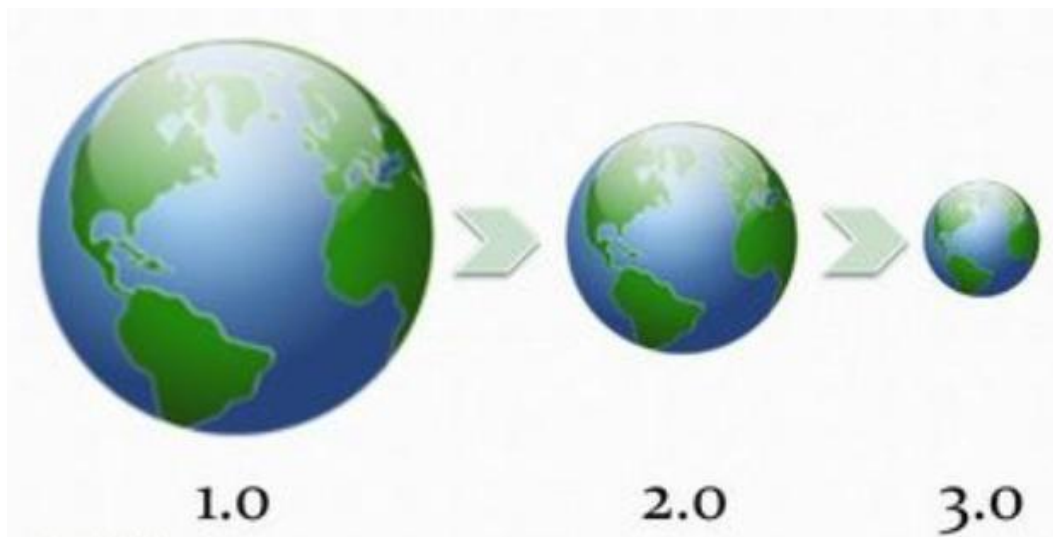


Figure 2: Three eras of globalization [6]

Consequences of Globalization.....

We live in a new era, with an international economy that is being transformed into a world economy. Globalization is a trend that is changing everything and against which national states can do much. The consequences of globalization for the state, the economy, and civil society includes economic globalization, cultural globalization, financial globalization, global governance, social justice, and future cities. We will elaborate on some of these.

- *Economic Globalization*: The economies throughout the world have been impacted greatly by globalization. Economic globalization takes place when goods, ideas, people, services, and capital move from one nation to another. It requires commerce and exchange among nations, regions, and continents on a massive scale. It has grown significantly in affluent nations. It has been associated with numerous pressures on welfare states. Globalization matters because these flows affect our jobs, salaries, income distributions, and so on. Participation of the late-moving nations in economic globalization is paved with thorns.
- *Cultural Globalization*: One of the consequences of globalization is the end of cultural diversity and the super-imposition of the global, homogenized culture serving the needs of the developed nations. The culture of a society is the way of life of its members, the collection of ideas and habits which share, cherish, and transmit from generation to generation. Culture is acquired through enculturation. Cultural globalization is driven by the worldwide marketing of Western cultural industries. It was initially perceived as a process of homogenization and the global domination of American culture at the expense of traditional diversity [7]. With multinational corporations (McDonald's, Pizza Hut, Radio Shack, Starbucks, etc.), there is an inevitably a spread of culture. The influence of national and local cultures continues to play a strong role in spite of the converging factors of globalization.



Consequently, managers and employees must understand how to work across cultural boundaries and deal with team members with different cultural background.

- *Global Governance*: Globalization saw the establishment of rule-based global governance, such as the United Nations, World Trade Organization, the World Health Organization, World Bank (the International Bank for Reconstruction and Development), the International Monetary Fund, and other international bodies.
- *Social Justice*: There has been a concern whether globalization is consistent with social justice. The social justice indicator is based on five sub-indicators: poverty prevention, equitable access to education, labor market inclusiveness, social cohesion and equality, an intergenerational justice. Globalization may well influence sub-dimensions of social justice. Opponents of globalization believe that global trade and globalization are inimical to social justice and that globalization jeopardizes gender equality and human rights [8].
- *Manufacturing*: Globalization created a new world of manufacturing in which high-tech was combined with low wages. The vast wage differences made this manufacturing-location arbitrage profitable. Most of the G7's share loss in manufacturing went to just seven rapidly industrializing nations. Globalization of the manufacturing sector is taking place at an accelerated pace.
- *Future Cities*: In the wake of globalization, cities across the world are now deploying technology to prepare their citizens for the new age of Creativity and Innovation. For example, the Internet of Everything (IoE) (through which we are technologically connected with everyone, everywhere, all of the time) is helping cities to ensure safer communities, better transportation, health care, clean air, and environmental services. Art and culture are important ingredients to future cities.
- *Anti-globalization Social Movements*: Globalization has often perpetuated poverty, widened economic inequalities, sustained militarism, fragmented communities, marginalized subordinated groups, fed intolerance and deepened crises of democracy. The uneven nature of globalization has provoked a counterhegemonic resistance and political counter movements around the world. These social movements raise awareness of the economic, political, and social consequences of globalization. Critics of globalization regard globalization as a tool of hegemony to expand its control over human orders. Their view of globalization is that globalization somewhat contributes to the denationalization of various nation-states' policies and laws [9,10].

Benefits and Challenges

Globalization helped most rich nations grow faster because it was easy to ship goods, but hard to ship knowhow. They exploited the poor nations by using their labor to make goods, and then ship the goods across borders. Some of the advantages of this include the following [11]:

- The ability to locate expertise and labor around the world.
- The agility to operate 24 hours a day. With employees in different time zones all around the world, an organization can literally operate around the clock.
- A larger market for their products. Once a product is being sold online, it is available for purchase from a worldwide consumer base.
- As the world becomes flat, efficiency is increased, profits are raised, and product development times are drastically reduced.
- For businesses, there is the big draw of unbounded profits in a world without walls.

As with most things in life, there is a bad side to globalization. Globalization is often linked to inequality both within and between countries [12]. Other challenges of globalization include [11]:

- Each country has its own infrastructure, many of which are not of the same quality as the US infrastructure (average 4.60 Mbps).
- Different countries have different laws and regulations.
- Many countries have restrictions on what can be sold or how a product can be advertised.



- Every country has its own (or several) unique culture(s), which a business must consider when trying to market a product there.
- Shipping products between countries in a timely manner can be challenging.
- There are challenges in dealing with employees and customers from different cultures. Culture refers to a people's common norms, beliefs, and practices.
- Globalization is causing problems for white-collar employees in the US due to the outsourcing challenge.
- A lot of people in advanced economies could lose their jobs due to globalization. The future for unskilled jobs is dim.
- Some people are seeing globalization as a threat to the US as jobs are being outsourced to India or China. Some consider this as unethical.
- Crosscurrents of cooperation and competition pose a challenge for companies of all sizes.
- A negative effect from globalization is the widespread organization of terrorist networks.
- Globalization is responsible for the cause of today's financial collapse, growing inequality, unfair trade, and insecurity.
- Digital divide. As the Internet continues to make inroads across the world, it is also creating a serious social gap between information "haves" and "have-nots." The digital divide consists of three stages: economic, usability, and empowerment.

These challenges tend to discourage some businesses from expanding globally.

Conclusion

Globalization is flattening the world. It is setting new rules of the road for multinational companies, expecting business leaders to respond to a changed operating environment. *Globalization 3.0* will dominate the business and policy agendas of companies and governments for the next several decades.

Future globalization will be different from the past and current globalization, which will bring us to a better world if we prepare well. Globalization 4.0 is fast approaching. Corporate leaders must understand Globalization 3.0 so that they can better prepare for the changing world order. Globalization is like a wild fire, it has started and nobody knows where it is taking us. No person, family, religion, or nation is immune to it [13]. Globalization is a concept that is here to stay and it is a force for good. More information of globalization can be found in the books in [14-22] and the following related journal: *Journal of Law, Policy and Globalization*.

References

- [1]. D. Hongfei, "Blockchain technology: A remedy for de-globalization?" May 2020, <https://cointelegraph.com/news/blockchain-technology-a-remedy-for-de-globalization>
- [2]. "Causes of globalization," <https://www.mindmeister.com/41642724/causes-of-globalization-3-0>
- [3]. "Addressing 'Globalization 3.0,'" January 2006, <https://thejournal.com/articles/2006/01/01/addressing-globalization-30.aspx>
- [4]. T. L. Friedman, *The World Is Flat*. New York: Farrar, Straus and Giroux, 2005, pp. 48–159.
- [5]. "An alternative view of Globalization 4.0, and how to get there," January 2019, <https://www.weforum.org/agenda/2019/01/globalization-4-alternative-view-guy-standing/>
- [6]. "Globalization," <https://www.goconqr.com/slide/3075088/globalization->
- [7]. "History of globalization," Wikipedia, the free encyclopedia, https://en.wikipedia.org/wiki/History_of_globalization
- [8]. B. Kauder and N. Potrafke, "Globalization and social justice in OECD countries," *Review of World Economics / Weltwirtschaftliches Archiv*, vol. 151, no. 2, 2015, pp. 353-376.
- [9]. E. O. K. Prempeh, "Anti-globalization forces, the politics of resistance, and Africa: promises and perils," *Journal of Black Studies*, vol. 34, no. 4, March 2004, pp. 580-598.



- [10]. T. Myint, "Globalization and the institutional dynamics of global environmental governance," *Indiana Journal of Global Legal Studies*, vol. 18, no. 1, Winter 2011, pp. 395-420.
- [11]. D. Bourgeois and D. T. Bourgeois, "Globalization and the digital divide," in D. Bourgeois, *Information Systems for Business and Beyond*. Lulu.com, chapter 11, 2014.
- [12]. M. Mills, "Globalization and inequality," *European Sociological Review*, vol. 25, no. 1, February 2009, pp. 1-8.
- [13]. M. A. Adedimeji, "Globalization and the survival of the Nigerian cultural and linguistic heritage: The American paradigm," <https://fliphtml5.com/soyt/afbl/basic>
- [14]. R. Baldwin *The Globotics Upheaval: Globalization, Robotics and the Future of Work*. Oxford University Press, 2019.
- [15]. F. J. Lechner and J. Boli (eds.), *The Globalization Reader*. Wiley-Blackwell, 6th edition, 2020.
- [16]. J. T. Roberts, A. B. Hite, N. Chorev (ed.), *The Globalization and Development Reader: Perspectives on Development and Global Change*. Wiley-Blackwell; 2nd edition, 2014.
- [17]. G. Ritzer (ed.), *The Blackwell Companion to Globalization*. Malden, MA: Blackwell Publishing, 2007.
- [18]. B. Waters, *Just Capitalism: A Christian Ethic of Economic Globalization*. Louisville, KY: Westminster John Knox Press, 2016.
- [19]. M. Wolf, *Why Globalization Works*. New Haven, CT and London: Yale University Press, 2004.
- [20]. A. Ehteshami, *Globalization and Geopolitics in the Middle East: Old Games, New Rules*. London, UK and New York: Routledge, 2007.
- [21]. D. Rodrik, *The Globalization Paradox: Democracy and the Future of the World Economy*. New York and London: Norton, 2011.
- [22]. J. D. Sachs, *The Ages of Globalization: Geography, Technology, and Institutions*. Columbia University Press, 2020.

About the Authors

Matthew N.O. Sadiku is a professor emeritus in the Department of Electrical and Computer Engineering at Prairie View A&M University, Prairie View, Texas. He is the author of several books and papers. His areas of research interests include computational electromagnetics and computer networks. He is a fellow of IEEE.

Olusola A. Okhiria has a PhD degree in Microbiology from Cardiff Metropolitan University, Cardiff; Postgraduate Certificate in Education (PGCE) from Cardiff University, Cardiff, UK. She is a Biomedical Scientist in Microbiology department, University Hospital of Wales, Cardiff and also involved in training, mentoring and consultancy in academic careers. Her areas of research include biofilm. She is a Fellow of IBMS, UK.

Sarhan M. Musa is a professor in the Department of Electrical and Computer Engineering at Prairie View A&M University, Texas. He has been the director of Prairie View Networking Academy, Texas, since 2004. He is an LTD Sprint and Boeing Welliver Fellow. His research interests include computer networks and computational electromagnetics.

