International Telecommunication Union

MetMUNC XLVIII

Topic: Inequality of Technological Advancement

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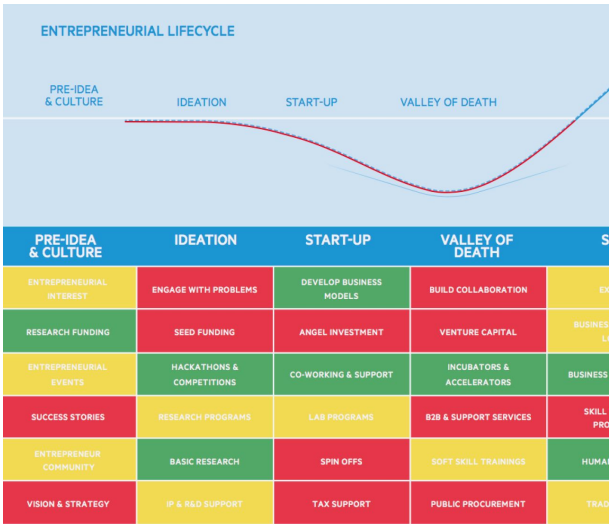
"If nurtured appropriately, technological advances and digital connectivity can spur innovation in business models, business networking and knowledge transfer while also facilitating access to international markets."

-International Chamber of Commerce (ICC)[1]

Introduction to Inequality of Technological Advancement

Economic competitiveness is increasing as the global economy becomes more open. Digital innovations are needed in order to develop environments in different sectors that enable people to have access to the world's newest technologies. ITU research within the past few years has shown that there is a growing innovation divide among countries. As the innovation divide increases, the market becomes more monopolistic and leaves little room for new companies to profitably continue their advancements. For example, some can argue that

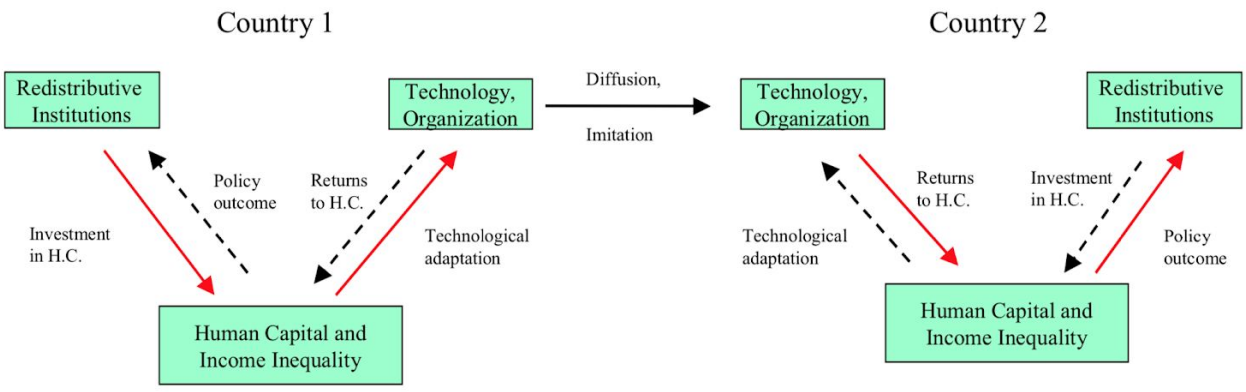


[1] https://iccwbo.org/global-issues-trends/digital-growth/

companies like Google and Amazon have quasi-monopolies on their respective industries and destroy the chances of other countries to compete with them and profit from that industry.[2]

This topic raises an issue that the ITU is currently tackling, making it even more applicable in the real world. Using the current ITU framework, ways in which countries can work together and maximize benefits will need to be created by thinking from political, economic, and social standpoints. The ITU framework is a structure set by the World Telecommunication Standardization Assembly (WTSA) that essentially determines the standard protocol for all member nations regarding telecommunications and everything else within the scope of the ITU.[3] While the ITU framework is an ideal set of goals, it is easier said than done to get countries on the same page because it's important to nations that their interests are also protected.

The international diffusion of technology caused more flexible and skill-based technologies to develop in countries with more unequal social contracts (e.g., income inequality). This may cause other countries to adopt this unwritten policy, generating a "chain reaction" that pushes the whole system towards technological, economical, and political inequality.[4]



[2] https://techcrunch.com/2017/03/29/is-technology-contributing-to-increased-inequality/
[3] https://www.itu.int/en/ITU-T/about/Pages/default.aspx
[4] https://www.princeton.edu/~rbenabou/papers/HEG%20ITSC.pdf

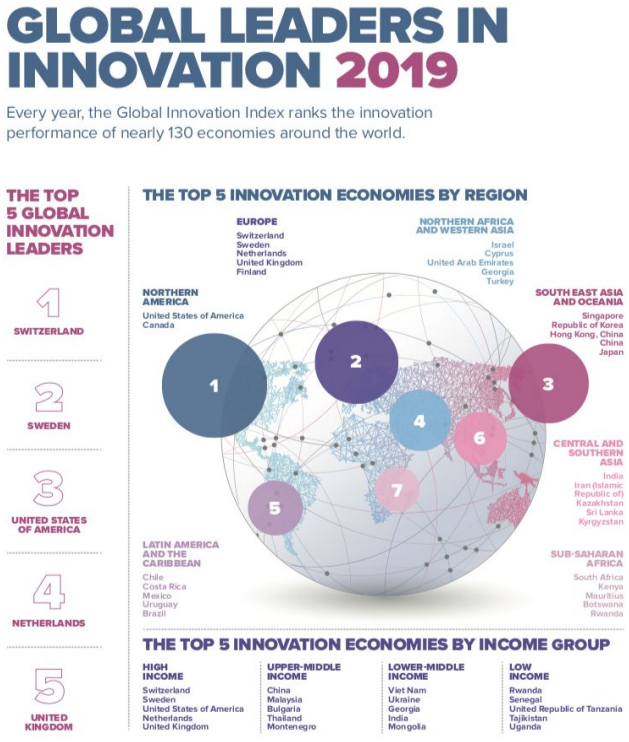
Many countries today, such as the U.S. and Britain, have developed reliable infrastructures to provide a connection to the Internet for the majority of their citizens, but many developing countries without these infrastructures are struggling to access the Internet. There are 35 countries as of 2017 that have a user penetration rate (amount of people with access to Internet) of less than 20 percent.[5] This number is due to lack of infrastructure (stemming from a lack of money to build a reliable infrastructure), war, civil unrest, and poverty. Some countries don't allow their citizens to use the Internet, such as North Korea, but do have a reliable infrastructure.

Physically, the Internet is connected by 550,000 miles of undersea Internet cables, and millions more on land.[6] Many island nations are susceptible to losing internet because they only have one cable coming into the country and could lose internet for weeks.

Currently Affected Nations

There are multiple ways in which one can determine how technologically "advanced" a country is, relative to other countries:

1. Global Innovation Index (GII): Determined by the World Intellectual Property Organization (WIPO), the GII ranks the



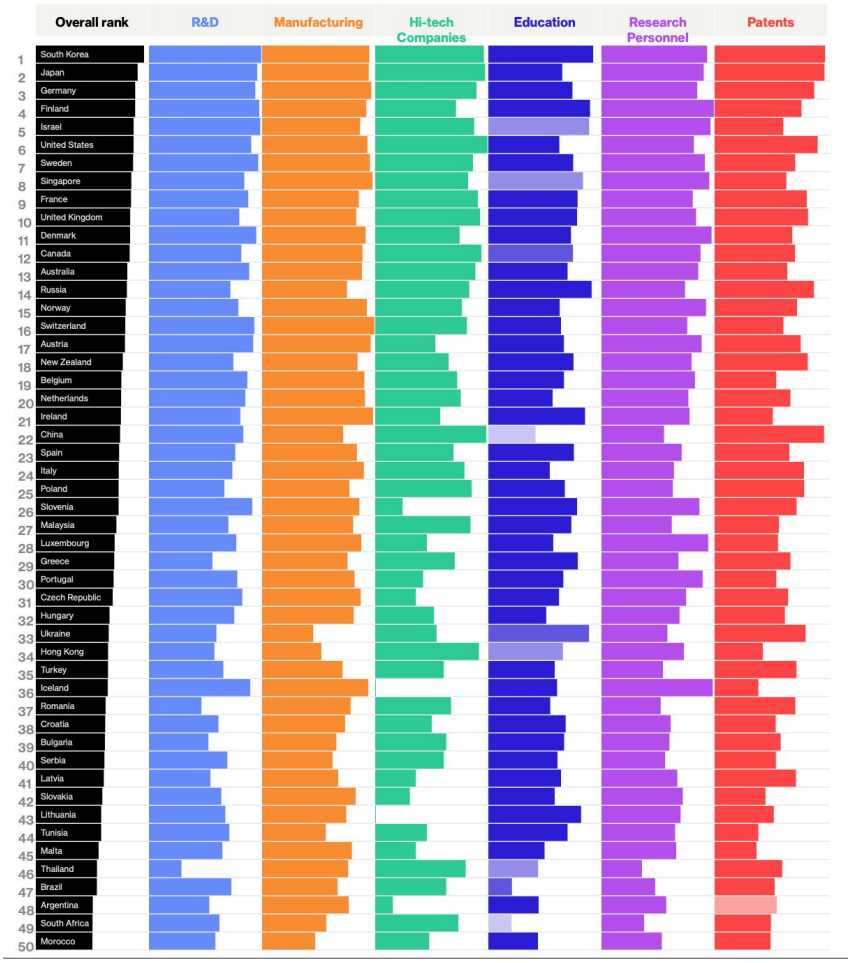
[5] https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICT

[6] https://www.businessinsider.com/how-internet-works-infrastructure-photos-2018-5#in-the-most-basic-sense-the-internets-job-is-to-carry-information-from-point-a-to-point-b-1

innovativeness of 129 countries, while also taking into consideration other factors that may affect that country's productivity, such as income and economy. However, it is important to note that the GII for 2019 was determined with an emphasis on medical innovation.[7]

2. <u>The Bloomberg Innovation Index</u>:

This Innovation Index is slightly more inclusive than the previous, as it ranks the innovativeness of a country by analyzing six various fields and industries. These fields are: Research & Development, Manufacturing, High-Tech Companies, Postsecondary Education, Research Personnel, and Patents. However, while this Index uses more categories in its determinations, it doesn't take into



[7] https://www.wipo.int/global_innovation_index/en/2019/

account other circumstances that may affect a country's innovation potential and only breaks down the top 50 countries.[8]

Current Efforts

1. The Telecommunication Development Bureau (BDT) has composed a Digital Innovation Framework,[9] in which countries are encouraged to accelerate their digital transformation.
2. Multi-stakeholder governance is used. The ITU provides platforms and databases that prompt global representatives to engage in dialogue and innovation.
3. Earth stations in motion (ESIM) address a complex challenge – how to provide reliable and high-bandwidth Internet services to what are – literally – moving targets. They provide broadband communications, including Internet connectivity, on mobile platforms. There are currently three types of ESIM: ESIM on aircraft (aeronautical ESIM), ESIM on ships (maritime ESIM) and ESIM on land vehicles (land ESIM).

Delegates should work together to allocate funds and decide where to improve infrastructure to create a more reliable connection to the Internet for all countries. As always, it's important to take into account circumstances surrounding different nations on economic, political, and social levels.

[8] https://www.bloomberg.com/graphics/2015-innovative-countries/

[9] https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2017/WSIS/Innovation-Dialogues-to-Accelerate-Digital-Transformation.aspx

Questions to Consider

1. What is the most effective way the ITU can allocate funds to assist countries in innovation? For example, should they distribute funds based on past innovation performance, population, form of government, or something else?
2. How can the ITU advance technological innovation in ways other than providing funds?
3. How can the ITU encourage technological advancement without encouraging unequal social contracts that have been known to accompany more technologically advanced societies?
4. To what extent can the ITU aid in technological advancement without impeding on a nation's culture and traditions?
5. How can the ITU ensure they will continue to have funds available to enable future advancements?
6. Should the ITU specifically encourage certain fields of innovation that are deemed most relevant/necessary for that time? If so, how can these categories be determined and what are some examples?
7. Part of the ITU encouraging further technological advancement will inevitably include more collaboration between countries. How can the ITU set international standards for the protection of intellectual property?

Helpful Links

- https://iccwbo.org/global-issues-trends/
- https://www.itu.int/en/ITU-D/Pages/default.aspx

- https://www.itu.int/en/ITU-D/TIES_Protected/OP2019-2022.pdf
    - It's not necessary to read the entire document, but you may find there are pages that are helpful to you.
    - Pages **13-14** are the **4 objectives** of the Telecommunication Development Bureau.
    - The guide on Page **105** will provide you with the pages you can find the **regional initiatives** pertaining to **your country**.
- https://www.bloomberg.com/graphics/2015-innovative-countries/
- https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf