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Digital technology and telemigration

Globalization is simple. Arbitrage drives globalization. When the cost difference across countries is larger than the trade cost, companies exploit the cost gap by buying low and selling high. Traditionally, this arbitrage mostly concerns trade in goods because it is easy to ship “things-that-we-make” across borders. It was much harder to ship across borders the “things-that-we-do” – what economists call “services”. But why is that? Why is it easier to ship goods than services across borders?

The answer lies in the reality of services. For many services, the service-provider and service-buyer have to be in the same place at the same time. The technical difficulty of getting service-providers from one nation into a room with service-buyers from another nation is the reason why globalization, up until now, has mostly been about goods, not services.

Digital technology, however, is changing that reality. In a whole host of ways, digital technologies, or digitech, are making remote people seem less remote, making it easier for people sitting in one country to work in another country. But looking at how digitech is doing this, consider the international cost differences that make this profitable.

A professor of economics in Zurich, for instance, earns about 20 times

what an economics professor earns in Manila. If we lived in a Star Trek world, where professors could teleport from Manila to Zurich and back, it is likely that the University of Zurich would engage in at least some arbitrage of professors. Of course, teleportation is not real thing, but digitech is moving reality in that direction. It is enabling what I call “telemigration” in my 2019 book, *The Globotics Upheaval: Globalization, Robotics, and the Future of Work*, namely people sitting in one nation and working in offices in another nation.

Putting it plainly, the incentives for telemigration are enormous, but so too are the technological barriers. I believe that emerging market exports of services will explode in coming years, since digitech is tearing down the barriers at an eruptive pace. I would focus on four aspects of this technological lowering of barriers to telemigration. First is domestic telecommuting.

Many have switched to telecommuting, and our companies are reorganizing things to make this domestic telecommuting easy. They are investing in new collaborative, cloud-based software packages as well as in telecommunications hardware and services that make remote workers seem less remote. Having arranged things to make telecommuting possible, companies will find it profitable to use foreigner

freelancers, at least for some tasks. Of course, using remote foreign talent might not be as good as using in-person domestic talent, but the foreign labour will be a whole lot cheaper.

The second is online freelancing platforms. These are like eBay, but for services, not goods. Just as eBay made it easy to buy and sell goods online, these platforms are making it easy to buy and sell services online in the form of freelancing. They will be like the “container ships” of telemigration. They are how companies in rich nations will find, hire, pay, manage and fire telemigrants from poorer nations.

The third factor is machine translation. It has improved radically. The key breakthrough was when, from 2016, the United Nations, the Canadian Parliament, and the European Parliament and European Commission posted online millions of human-translated sentences. This allowed the artificial intelligence geniuses at Google, Twitter, Facebook, Amazon and Microsoft to train AI models to translate text contextually, instead of word by word. That made a huge difference.

This is revolutionary. Hundreds of millions of talented, low-cost freelancers who have been excluded from telemigration by their lack of language skills will soon be able to communicate, via translation

technology, in “good-enough” English, or French, or any other widely spoken language. And some of them will be able to do at least part of many service jobs for a whole lot less than the people doing them today. It will even have a big impact on goods trade, since standard estimates suggest that a common language boosts trade by more than 50 per cent.

The fourth factor is technologies creating ways to make it seem as if you are in the same room with colleagues or clients in a different country. One of the new technologies is called telepresence rooms. These are common in large banks, some large companies and in some government departments.

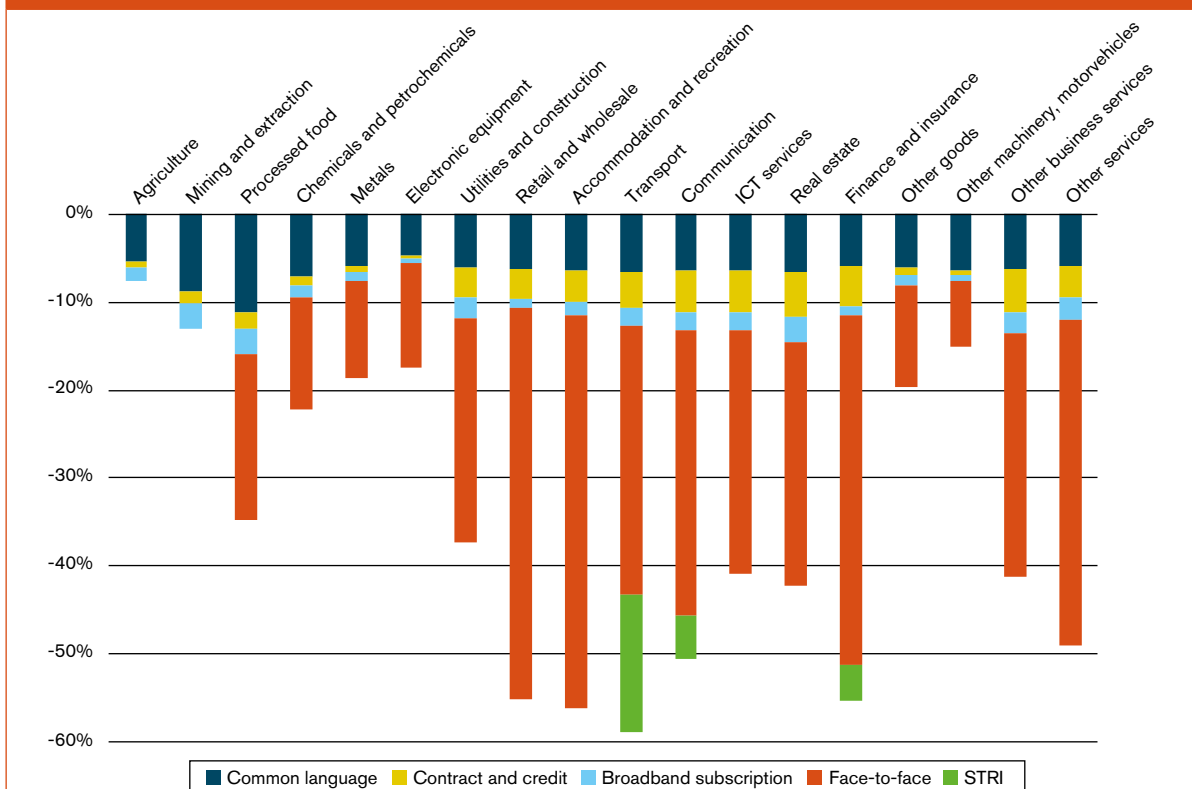
Another is “telepresence robots”. These are like a Skype screen on a simple robot body, where the robot is driven by the person on the screen. They are often used in US hospitals so that doctors can talk to patients without driving to the hospital. Some companies use them to allow managers to visit field offices without travelling. The telepresence robot remains in the field office and when the manager wants to interact with people in the field office, he or she fires up the telepresence robot and drives it around the field office. People say that the physicality of the robot really changes the quality of the communication. It boosts trust, understanding, and the authority of the telemigrant.

The progress to date is impressive, but it will accelerate radically in the next few years as 5G is implemented and raises transmission speeds by two orders of magnitude.

This development will be disruptive in advanced economies, where service workers have been mostly shielded from globalization, but it is a huge export opportunity for emerging market workers. In a nutshell, telemigration allows developing nations to exploit their comparative advantage directly based on low labour costs, without having to build a good with the labour and then export the good.

Figure D.33: New technologies are projected to reduce trade costs in different services sectors

Ad valorem equivalent trade cost reductions 2018-40 – different trends (sector averages)



Source: WTO calculations based on various methodologies as described in the text.

Notes: Figure D.33 displays the contribution of different variables to the reduction in trade costs in the different scenarios. Common language, credit and contract, and broadband subscription measure the reduction in trade costs because of a reduced impact of the absence of a common language, poor credit and contract environment, and a low number broadband subscriptions, respectively. Face-to-face measures the reduction in trade costs, because of a reduced importance of face-to-face contact for trade costs. STRI measures the reduction in trade costs because of an improvement in services trade regulation. The methodology is described in the text. Note that percentage reductions are not additive. The corresponding numbers are in Appendix Table D.6