# Globalization, information infrastructure, and equity

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A common definition of globalization is the increasing connection of economies in different parts of the world through greater movement of goods, services and financing. More generally, it also includes growing interconnectedness of nations, people, culture, and ideas. The benefits of globalization, in the form of reduced prices and increased availability of goods, are all around us. It can also be argued that globalization played a part in the weakening of communism in Central and Eastern Europe, and in China, and more generally is offering people around the world expanded access to information, an underpinning of freer societies.

Globalization has downsides as well. One is the economic disruption, such as jobs moving abruptly and prices for commodities fluctuating rapidly in response to market forces, the decisions of transnational companies, or both. Concentration of wealth among people, organizations, and countries best able to compete globally is another (Stiglitz, 2006). We also see smothering of local or even national cultures. In these negative aspects, globalization favors the large or the powerful over the individual, the small, or the less powerful. The manufacturing, shipping, finance, and mass media companies that led the expansion of world trade in the last part of the 20th century are examples of this, operating on an unprecedented scale to drive down costs and reach into the lives of billions.

Most recently, the rise of the World Wide Web has created greater hopes for global information exchange that can benefit smaller actors – whether individuals searching for greater freedom, small businesses looking to compete with global companies, or even less developed nations seeking a more favorable place in the world's economy. The sorts of information that might have reached East Germans in the 1980s over the radio or in smuggled newspapers are now available online with the click of a mouse. Small- or even microbusinesses have direct access to market information and consumers that a few decades ago would have been hard to obtain.



#### Infrastructure matters

But many pundits looking at the more individualistic, information-focused globalization – what Thomas Friedman (2005) calls "Globalization 3.0" – are too dismissive of the role of infrastructure. For example, in lauding the huge advances of IT- and service-related businesses Friedman quotes a business leader saying India is a country that "had no resources and no infrastructure." But infrastructure is a key enabler of globalization, even information-based globalization.

Certainly infrastructure costs for setting up, say, a software or consulting company are lower than those needed to establish, say, a machine tools company. And in terms of larger-scale infrastructure, laying in regional broadband is cheaper than building a new railway network or deepwater port. But in under-estimating the importance of infrastructure, those of us concerned with making globalization more equitable run the risk of allowing large, powerful economic and political actors to shape the direction of information policy in ways that benefits those actors, and the elites that control them, rather than the individual or the less powerful.

Access to broadband technology is a clear example of this, in several ways. The VOIP that Friedman points to as one of the ten enablers of Globalization 3.0 is dependent on it. So too is effective use of complex, interactive websites. Even cloud computing, which offers great potential for storage of information away from a particular place and the ability for computational power to be accessed on simple devices anywhere (both "pro-equity" or "prosmall-actor" factors) requires fast connections in order to move large quantities of information.

If we look at the costs of broadband, many of the least developed countries have the highest absolute costs. In contrast, relatively small but extremely globally connected places such as Denmark, Hong Kong, and Israel have among the lowest. China and India, the big powerhouses of global production, have costs somewhat in the middle (International Telecommunications Union, 2010), but we must remember that these are large countries with disparate levels of IT infrastructure within each. In India, for example, broadband access is much rarer in poorer and more rural states (Singh, 2009).

Similarly, the rise of information delivery through "apps" designed for particular electronic devices (as opposed to web browsers in general) poses an infrastructure threat to

equitable globalization. Although creating an app is as easy for a programmer in Quito as in New York, control of the platforms on which information is held by a handful of global companies. At the moment, device-specific apps are mainly used by high-end consumers in developed economies, but it is easy to imagine a future in which much more computing in the developing world is done on mobile devices (in much the same way that most growth in telephony is through mobile phones, not land lines). In such a future, having the technological platforms for vast amounts of information exchange controlled by a small group of companies would tend to exacerbate the centralizing aspects of globalization.

## Policy implications

Beyond pushing for more widespread access to broadband, what can those of us concerned with more equitable globalization – whether policymakers, information professionals, educators or nonprofit leaders – do? Avoid dependence on proprietary technologies, particular vendors, or specific devices. If a particular technology is most useful over a high-speed connection, enable basic functionality with slower connections and older devices. Most importantly, favor open access to information, not only in who is allowed to access information, but also how.

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