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Phone Networks Transcend Borders, But All Too Often Are Taken For Granted

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By Mitchell Moss

Business activity is no longer defined by the size of a town or the boundaries of a nation, but rather by telecommunications networks that transcend barriers of time and space. The nation's telecommunications infrastructure - a complex system of optical fibers, communications satellites, microwave transmitters, copper wire, cellular telephones and electronic switches - influences virtually every facet of our business and personal lives.

Almost half of the U.S. work force is employed in information-handling activities, and that percentage is even higher in the Bay Area. Information is different from natural resources such as iron ore, coal or oil that are depleted with use; it gains value when it is processed and used.

More and more, intelligence is built into computer terminals and telephone networks, allowing them to link offices around the world, control inventory through just-in-time manufacturing, improve delivery of business and government services, and enhance our daily lives.

Just think of the ease and efficiency with which California operates its lottery system, for example. That same technology, transmitted over telephone lines, is equally applicable to public services such as voting, motor vehicle registration, jury duty, and food stamp and Medicaid disbursements.

In the past hundred years or so, Americans have become so accustomed to low-cost, universal telephone service that they take their telecommunications infrastructure for granted. Yet the potential of the ubiquitous touch-tone phone, to take an obvious example, remains largely untapped. Until we are able to manage our households from a distance via our kitchen phones, we will not be participating fully in the Information Age.

Information is of limited value unless it can be transmitted from supplier to user, from headquarters to back office, from laboratory to factory. And this can best be accomplished, in my opinion, through a state-of-the-art public telecommunications network that is available to all American households and businesses.

All citizens have a stake in maintaining a robust telecommunications infrastructure, one that improves our productivity by harnessing technology to meet a diverse variety of individual and business needs.

For example, current telecommunications technology can readily improve public-sector productivity by making medical monitoring available in the home rather than the hospital, by facilitating the electronic filing of taxes, and by equipping the elderly with sophisticated home security systems. It also makes it possible to improve our schools by using telephone lines to connect classrooms with specialized instructors and curriculum materials. It is particularly meaningful to residents in rural areas, although it has obvious benefits for people in metropolitan areas as well.

However, we can no longer assume that traditional telecommunications regulatory policies will promote the levels of innovation and investment we need to provide advanced information services, fuel our economic development and meet the challenges of global competition. Our nation's long-term economic future hinges on our ability to maintain a high-quality, comprehensive telephone network - a network that allows individuals and businesses to compete on a worldwide basis.

To do so, our public policy must first recognize the strategic importance of telecommunications to domestic economic growth. It must then foster investment in communications, eliminate barriers to new information services, and regulate prices rather than earnings. Furthermore, our policy makers must acknowledge

the vital importance of stimulating domestic research and development and strengthening our nation's capacity to compete in the manufacture of telecommunications equipment.

The rise of New York, London and Tokyo as global financial capitals demonstrates that while telecommunications technology is not a substitute for face-to-face contact, it is a powerful way to extend human beings' geographic reach. Businesses today rapidly convert ideas and decisions into goods and services that are distributed and marketed through telecommunications networks that span the globe.

Information is the most valuable raw material the Bay Area produces. But maximizing the use of that information via technology - especially in the realm of telecommunications - will require new policies to ensure that our technological advances are not hampered by outmoded regulations.

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