

15. Connect Us

In 2026, we decided to figure out proactively and collectively what we all needed and wanted in our information and communication technology (ICT) infrastructure and systems, rather than just letting whoever could afford it do whatever they wanted, inefficiently and primarily in their own profit-seeking self-interests, that meet some needs but not others, instead of in the public benefit interests of all, leaving many stranded without adequate services, and creating much unfairness in delivery of content.

A giant poll was conducted. It determined:

1. The ability to communicate freely with anyone anywhere, by voice, video or in writing, access public Internet and information services, and access any commercial or not-for-profit electronic information or entertainment services affordably and without discrimination should be a basic human right guaranteed all, regardless of ability to pay, no matter where anyone lives.

That's how we find and get jobs, do much of our work, stay connected with family and friends, learn new skills, get important public information, participate in some communities, file taxes, how we and our children get educated, get home entertainment, get emergency services help, interact with government services, find, evaluate and buy much of what we consume, how many businesses and communities share information and trade goods and services, how we get news, learn about and participate in politics, learn about and connect with others, different from ourselves and far away, and so much more. It's right up there with food, shelter and clothing as a basic necessity in modern society. Anyone without all of this is critically disadvantaged, and that holds us back as individuals, communities, organizations and societies, and harms all of us.

2. We want these essential services delivered to all, everywhere, within reason, as a regulated utility, to avoid natural monopoly abuses and inefficient and unnecessary service duplications, which cost us more as society. We don't value competition or choice in critical communications delivery. We just want them state-of-the-art, ubiquitous, efficient, reliable, safe, fair and upgraded as needed. We do value choice in content available over this critical infrastructure and want all information and content to be delivered without discrimination and under fair and equal terms.
3. We don't want ugly utility poles, lines and gear to be visible and detract from aesthetics of our environments and create fire risks. We want it buried, made as invisible or attractive as possible.
4. We prefer to invest now for our long-term needs in the deployment of optical fiber infrastructure that can deliver any foreseeable bandwidth needs, now and far into the future. Optical fiber can transport virtually unlimited data, without electromagnetic interference or pollution, can only be tapped with great difficulty, can be upgraded by switching electronics and not delivery cables, and can deliver signals across long distances with less expensive signal reproduction, allowing delivery of high-performance services efficiently in remote and rural locations.
5. We want our electromagnetic spectrum used efficiently to meet wireless communications needs; we do not want unnecessary electromagnetic radiation that may harm health of humans or other life forms; and we value availability and reliability of wireless communications everywhere more

than insignificant differences between competitive services. We want all wireless communication services to work reliably, fairly and efficiently everywhere for everyone, in standardized ways.

6. We want communications equipment, jacks, cables and accessories to be standardized, as much as possible, so we don't have problems with something made by one manufacturer not working with something made by another manufacturer. For example, we want device charging cables, earphones, electric plugs, external drives, files and other interconnections to work universally. We want standard interoperability between all communication systems, so all work with all.
7. We want all computer and communications equipment providers to take back and sustainably process all used equipment to eliminate environmental harms from their disposal.

We established a working group, with representatives of government, academia, telecom companies, other businesses, hardware companies, citizens groups, Native Americans and other minorities, public safety experts, environmentalists and others to figure out how to optimally design and deliver what we wanted as a society. They worked on it three years, with all kinds of public polls and comment taking. At the end of that, they came up with a plan, and, collectively, we went to work as a society to deliver it. It took ten years, employing hundreds of thousands of people in good jobs, creating an economic boom.

Telecommunications and CATV infrastructure and services were re-regulated, essentially nationalized. The many years of deregulation, fake competition, oligopoly power abuse and public manipulation for profit were recognized as inefficient and not meeting our collective needs. It didn't make sense to let companies spend billions every year duplicating each other's networks with underutilized capacity, leaving millions unserved. It didn't make sense to let those providing data transport services create unfair advantages for their content creation businesses over competing content creation businesses, and it didn't make sense to have multiple wireless carriers burying the same dense areas with excessive electromagnetic radiation while nobody could get service in many other areas.

A new regulated public utility was created: *Tele-Connections for U.S.*, colloquially known as *Connect Us*. It seized assets of existing telecom and cable TV monopolies used for voice and data transport, compensating them fairly. It proceeded to rip out every telephone pole and copper cable in the U.S., replacing them with optical single-mode fiber bundles, largely in secured underground conduits repurposed from natural gas distribution pipelines, in which cables could be repaired or replaced without digging up the ground again. It coordinated that work with well-regulated electricity utilities, placing their cables in the same or adjacent underground conduits, once and for all, where they could rather easily be repaired or replaced without digging up the ground again. All natural monopolies are now well-regulated public utilities, to curb natural monopoly abuse tendencies and opportunities.

In cities, it coordinated that work with efforts to replace and bury all utility service infrastructure, electricity, water and sewer. Cables were terminated in former telephone network Central Offices and CATV distribution hubs, all tied and networked together with fiber in smart communications networks that used state of the art computer systems and artificial intelligence to optimize performance.

Connect Us also seized all electromagnetic spectrum and assets of all U.S. wireless service companies, compensating them fairly. A single wireless network was created that covered the entire United States. On the sides of homes and buildings, where optical fiber networks terminate and interconnect with our in building networks, and in the inside of buildings, wireless equipment functionality was integrated with

wireline equipment functionality, providing low-power wireless coverage for areas in and around homes and buildings that reduce overall electromagnetic emissions from current levels, and radically improve network coverage and performance. Other wireless radios were installed along fiber routes, as needed.

All wireless traffic backhaul is carried over fiber, improving the performance of all wireless systems. Capacity and bandwidth of wireless systems massively exceed previous levels, because electromagnetic spectrum is used efficiently, with broad ranges of consecutive frequencies and wavelengths.

Any organization or individual offering non-transport electronic information or entertainment services can connect to networks at any location, because wired transport bandwidths, reliability and performance are not limited at any home or business location. Each determines and manages whatever it does or does not charge for its services, and how, based on consumer demand and evaluations.

Standard connections at any home or business location are at 1 gigabit per second, bi-directional. Additional gigabit or 10-gigabit per second connections can be turned up in a day or two, by connecting additional fiber strands from existing bundles and/or adding or changing network interface cards. Service rates are standard, equal and fair for each home or business in the U.S., regardless of location.

Each U.S. citizen received one share in the new utility and one vote in critical management decisions. Capital was created by simply printing the money. The public understood its shared cost of erosion in the dollar's value from inflation would be compensated by overall returns to society and to us as individuals and enterprises, by increasing uses and efficiencies of the enabling capacities of the system.

Connect Us is managed as a non-profit. Like AAAA, or the public healthcare system, at ends of years, costs to serve all are tallied up and compared with total revenues from serving all. That information is used to adjust future rates for services, so the system is always state-of-the-art, without overpaying.

OMG, did *Connect Us* ever pay off for us! We ended up printing about 2 trillion dollars for the effort, before it was all over, but it's estimated that investment is returning about 1.5 trillion dollars a year in improved productivity, economics, efficiencies, improved delivery of government services, better health, improvements to education, reductions in transportation needs, creation of new businesses, rehabilitation of failing towns and economies throughout the rural U.S., and in many other ways.

Now, in 2060, we take it for granted that all are connected to all, always, anywhere, if we want to be. We realize all kinds of associated advantages: improved health through remote monitoring and telemedicine, access to any information or tutorial anywhere to help us do what we want, access for all to public education and information networks, the ability to speak with anyone anywhere any time, regardless of what language anyone speaks, abilities to record anything by voice or video anywhere and distribute it in real time, 2D or 3d remote video conferencing anywhere, 3d image sharing, ability to access files to 3d print all kinds of things remotely, being able to do monetary transactions with anyone anywhere, any time, remote participation in live entertainments, use of all kinds of sensor networks for environmental monitoring and other purposes, reduction in growth of cities, and so many other things.

Many incredible new products and services have been created and delivered over this infrastructure. This effort has accelerated human development and evolution intensely. Many can work anywhere, anytime, making livelihood easy anywhere, even in remote communities. Improved chip densities, electronics miniaturization and battery efficiencies have led to extraordinary micro-devices we can carry anywhere easily: wireless phones and computer devices as jewelry pinned to clothes, embedded in

glasses, or almost invisible earphones; watches that are computing devices and 2D or 3D projectors; computing and entertainment screens in eyeglasses and contacts; universal translation earbuds; medical devices embedded in bodies; and technologies supporting all sorts of other specialized applications, like transferring data to 3D printing stations that can produce all kinds of standard or custom goods.

We've learned to engage with technology in moderation, as tools for our benefits, as individuals, groups, communities, systems and societies. We use them, rather than let them control us. Great efforts help us address media addictions. We commonly take at least one day a week to turn it all off, go outside and simply enjoy being present in nature, with friends, lovers and families. Many leave it off and only turn it on when we need it for a specific purpose. These abilities exist to assist human spirits in individual and collective lives and evolutions. We recognize threats of becoming lost in them and make efforts to avoid that. No unsolicited advertisements, marketing or sales efforts intrude on us.