Technology’s Potential Revealed in the Pandemic

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What You Need To Know

When the novel coronavirus pandemic turned the world upside down, it forced us apart physically and brought our bustling economy to a near halt. Lockdowns and mandated closures forced people to shelter in place for weeks. Nearly all non-emergency or non-COVID medical procedures ceased. Schools and “non-essential” businesses were shuttered.

As disruptive and devastating as this was, it could have been far worse absent the technology and innovation that helped bridge the spatial divide and kept society functioning. Technology connected bosses to employees, doctors to patients, educators to students, and grandparents to grandchildren. Society pivoted almost overnight. Limitations on in-person gatherings forced companies, organizations, and houses of worship to shift meetings, conferences, and services entirely online. Families celebrated milestones and grieved lost loved ones through laptop screens and devices. Bedrooms and home offices became our classrooms and doctors offices. Social media allowed Americans to air their grievances and engage in the most fundamental of our political processes, elections.

Technology is not without its challenges: We sacrifice privacy and security, risk potential for crime and harassment, are exposed to unwelcome images and material, and suffer from fewer in-person relationships in an increasing virtual world. Additionally, many Americans awakened to technology companies’ tremendous ability to shape the public discourse, limit the dissemination of news and information, and eliminate contrary or unpopular ideas and opinions.
All of these are cause for concern, but they do not erase technology’s many positive benefits to our society, which solve myriad problems and were critical to getting us through the pandemic. Continued innovation has the potential to further enhance our individual lives and our society broadly.

**Why You Should Care**

Technology unleashes our potential and advances free enterprise. During the pandemic, innovation made it possible for society to function.

- **Telemedicine**: When in-person medical services were limited, more providers gave patients access online, including via video conference. Regulations that were relaxed temporarily in response to COVID-19 should be repealed or reformed permanently.
- **Telework**: Advancements in telework made it possible for millions of workers to continue their jobs working from home. This positive trend is likely to continue after the pandemic. Innovation that allowed businesses to continue serving customers in spite of the lockdowns also prevented many small businesses from failing and enabled the creation of small enterprises.
- **Education**: Online learning allowed schools to continue serving students. While families, students, and educators faced virtual education challenges that stemmed from poor planning and implementation, this should not be an indictment of online learning or technology’s capacity to facilitate education.

**More Information**

**Technology and the Pandemic**

Most people embrace technology, recognizing the innumerable benefits that it has delivered to every aspect of our lives. Innovation allows us to overcome the limitations of space, time, knowledge, and resources. It enables commerce, increases efficiency and productivity, expands markets, fosters real-time communication, collects and rapidly analyzes data, facilitates the exchange of information and ideas, and more.

Government-mandated shutdowns due to COVID-19 forced Americans to suddenly shift nearly all of their operations to a virtual environment. Video conferencing, social media, eCommerce, and eLearning platforms allowed large parts of society to continue functioning and minimized the pandemic’s devastation.

**Telemedicine**

Telehealth and telemedicine are not new concepts. Telemedicine refers to the use of technology to deliver care from a distance in real time as a replacement to in-person visits.
Digital platforms and audio and video conferencing capabilities connect doctors to patients who are elsewhere. This expands access to care for those in areas with few healthcare providers, such as rural areas, and to vulnerable populations.

Telehealth is a broader concept that encompasses other remote health services, including collecting biometric and other patient data, storing and communicating that data between providers, and telemedicine.

Before the pandemic, telemedicine was viewed as a solution to coming doctor shortages and societal problems such as an aging population, health disparities, and lack of care for chronically-ill Americans. While the deployment of telemedicine has been common in other countries like India, it was not widely adopted in the United States until the pandemic. At the start of 2020, telemedicine accounted for less than one percent of all doctor’s visits. By April 2020, it exploded to nearly 69 percent all visits.

The U.S. had been slow to adopt telemedicine more widely because federal and state policy prevented its expansion. Standards for telehealth and telemedicine differ from state to state. State licensure regulations for health professionals was, and still is, a significant challenge. Licenses are burdensome because each state has its own standards and requirements for medical professionals. The financial cost, time, and resources required to apply for a license in each state in which a doctor seeks to practice discouraged many from applying. Privacy, reimbursement policies, and other regulations also hampered telemedicine’s growth.

The outbreak of the coronavirus in the U.S. suddenly placed significant demand on the provision of care across the country, forcing federal and state governments to increase the supply of doctors and health professionals. Immediately, they lifted onerous regulations on telemedicine.

The Trump Administration issued an executive order that opened up telehealth to include more services with more access to patients and payments. All 50 states enacted various temporary executive and regulatory changes to increase the supply of medical professionals, but 41 states and three territories specifically modified requirements for telehealth. Seemingly overnight, doctor’s offices went from the traditional in-person appointment to embracing technology and enabling virtual visits.

Most policy actions were temporary. By making reforms permanent, states can strengthen the responsiveness of their healthcare systems to future emergencies, address shortages of healthcare workers, and reduce healthcare costs.

**Telework**

Technological advances have given millions of workers greater flexibility to do their jobs from home. Employees can reach clients and colleagues nearly anywhere at any time by video
conferencing, calls, emails, or texts. This has been made possible by the expansion of wireless connections, secure computer networks, and cloud computing.

Before the pandemic, telework was already on the rise, but most employees worked from the office. From 2005 to 2013, the number of workers who worked at home at least half the time increased by 115 percent. Yet, in 2013, 72.1 percent of workers still worked entirely from the office. Just before the pandemic, only one in five whose job could be done remotely worked from home entirely or most of the time.

The pandemic upended workplaces and encouraged a tremendous expansion of telework. Workers who could work from home did: As of 2020, an estimated 75 million U.S. employees (56 percent of the non-self-employed workforce) worked in jobs that could be done from home. Nearly three out of four (71 percent) of workers teleworked at least part-time according to Pew. However, there is a clear class divide, as teleworkers tend to be college graduates and earn higher incomes.

Although many women lost their jobs due to the pandemic and school and childcare closures, many gained work flexibility. By a margin of 46 percent to 35 percent, women were more likely than men to have the chance to telework in 2020. In part, this is because employed women have higher levels of education and women were more concentrated in occupations that could be done remotely.

The pandemic closures are easing, but telework is not going away: more than half of new teleworkers expressed a desire to continue teleworking even after the pandemic.

Telework has its challenges. According to Pew surveys, half of teleworking parents express difficulty getting their work done without interruptions, likely especially if their children are in virtual learning; about a third of workers are worn out by “Zoom fatigue” or exhaustion from video conferencing; and younger workers struggle to stay motivated to do their job.

Telework may have an economic impact on local economies as well. Bustling lunchtime eateries that cater to office workers are quiet and may close permanently.

However, there are clear benefits to the normalization of telework, especially for workers who value flexibility and have responsibilities outside of their jobs.

Employees have demonstrated to managers that they can be trusted to get their work done at home, which reduces fear in telework. Employers recognize the benefits of being able to recruit new talent from a wider selection of candidates, not just those within one area. Flexible work is also an incentive to retain good workers. Some 83 percent of workers say telework makes them happy and three out of four workers (74 percent) say a remote work option would make
them less likely to leave their current company. Telework reduces commuting time and the use of transportation, benefiting the environment, reducing traffic congestion, and giving workers more personal time.

Although employers had to invest in devices and digital services to allow for remote work, they benefited from cost savings including rent, cleaning services, food and taxes.

**Virtual Learning**

After all school buildings closed in March 2020, school leaders nationwide scrambled to develop and implement remote learning for the remainder of the school year. Results were mixed: By May of 2020, just 44 percent of the districts surveyed by the American Enterprise Institute were offering full online instruction with new content and feedback for students.

The virtual experience during the pandemic has been fraught with challenges and disappointments for parents and students, including a lack of structured environments; curricula and lesson plans; and connectivity issues. Parents particularly struggled by suddenly having to oversee their children’s education. The latter was especially an issue for working mothers, over a million of whom left the labor force.

However, it is still important to recognize the important role that technology played in providing learning opportunities during the shutdown, and how moving forward, technology has the potential to create new and better learning opportunities for students of all ages.

Virtual learning isn’t just limited to the online classrooms that were forced upon millions of K-12 students in 2020 and 2021. Technology can play many roles, from supplementing classroom instruction on an occasional basis to providing students with full-time programs. Virtual learning continues to evolve and can provide education models that are increasingly more personalized.

Distance learning played a significant role in higher education prior to the pandemic. In fall 2018, a third (5.7 million) of all undergraduate students participated in distance education and 14 percent (2.3 million students) were in distance education courses exclusively. Of students in post-graduate studies, over a third (1.2 million) were in distance learning classes, and a significant portion were exclusively online. For nontraditional students, distance learning offers flexibility to pursue an education while balancing other commitments, such as raising families, caretaking, and working, that may conflict with the traditional college schedules. Online education can also help students, especially those in rural communities, access advanced or specialized courses that are not available in local schools.

The pandemic shifted traditional institutions of higher education into remote learning and exposed how they too have lagged in adopting innovation to deliver high-quality digital...
educational options. It also heightened questions about the value proposition of traditional institutions as students and parents increasingly question whether the price is worth the results.

Many issues that frustrated parents and students during the pandemic could be mitigated by greater investment and adoption of technology. Virtual learning may not be the best environment for every student but it has demonstrated success in many arenas. For example, online charter schools have figured out how to effectively employ virtual learning and closed the achievement gap for low-income students.

At the K-12 levels, as public schools resume in-person learning, parents, policymakers and educators should consider how virtual learning tools and strategies can augment students’ opportunities to learn. Colleges and universities should also consider how to innovate to better serve students the kind of high-quality and personalized educations that will prepare students for opportunities in the workforce.

Final Thoughts
As devastating as the coronavirus pandemic has been, without technology there would have been no virtual world for us to shift to. Technology helped mitigate the losses in commerce, learning, working, medical care, and even socialization. Ongoing technological innovation has the potential to continue to solve problems and provide new opportunities for better and richer lives in the future.

Technology Saved Small Business

Hundreds of thousands of businesses likely closed for good during the pandemic, but many more were saved because of technology. Technology also spurred the creation of small enterprises and helped more workers enter the workforce on their own terms.

To stay afloat, small businesses created online services or boosted their online presence. According to one survey, over half (59 percent) of local businesses did not have an eCommerce store before COVID-19, but about third of them (33 percent) created one during the pandemic. A Small Business Association survey found that across the country, large majorities of small enterprises depend on digital platforms. Eight out of ten use at least one major platform to show products and services and to advertise, and nearly as many use digital tools to communicate with customers and suppliers.

Government data also points to a boom in new businesses. Applications for employer identification numbers used to start a business passed 3.2 million by the fall of 2020, compared with 2.7 million at the same point in 2019. Undoubtedly, many of those small businesses employ digital tools.
What You Can Do

Get Informed
Learn more about how technological advancements are improving our lives. Visit:

- American Telemedicine Association
- Pew Research
- Department of Education

Talk to Your Friends
Help your friends and family understand these important issues. Tell them about what’s going on and encourage them to join you in getting involved.

Become a Leader in the Community
Get a group together each month to talk about a political/policy issue (it will be fun!). Write a letter to the editor. Show up at local government meetings and make your opinions known. Go to rallies. Better yet, organize rallies! A few motivated people can change the world.

Remain Engaged Politically
Too many good citizens see election time as the only time they need to pay attention to politics. We need everyone to pay attention and hold elected officials accountable. Let your Representatives know your opinions. After all, they are supposed to work for you!