Bridging Digital Divide through Community Broadband Initiatives

Digital Divide is defined as the gap between underserved communities that have limited internet access and the communities that have relatively better access to broadband internet (25 megabits per second download/3 megabits per second upload speeds). While the Federal Communications Commission (FCC) claims that broadband internet is not available to 24.7 million people in the United States, data from Microsoft indicated that 162.8 million (almost half the population of the United States) do not use internet at broadband speeds nationally. The disparity between these calculations may be because the FCC considers an entire census-block connected if one household or business has access to broadband, producing incomplete results.

Broadband internet is still out of reach for many rural communities in Tennessee. As of 2019, only 53.4% of Tennessee residents had adopted broadband. The State of Tennessee's broadband initiative as well as other federal funding opportunities are commendable efforts to improve broadband access, but it may take years before the infrastructure is in place to provide reliable and affordable internet to rural residents. With the shift to digital technology and widespread applications, access to broadband internet has become critical for economic development, specifically for improvements in education, workforce, healthcare, and recreation. Impacts of the digital divide have been highlighted during the COVID-19 pandemic with employees shifting to working at home and K-12 schools, colleges and universities offering classes online. Alongside that, with lockdowns and stay-at-home guidance, many residents are choosing online methods to order retail goods and services. Additionally, people need broadband internet to access up-to-date healthcare, prescriptions, and health services information about COVID-19 from news and media outlets, as well as the state and federal government.

University of Tennessee Extension developed a Digital Divide index in collaboration with Purdue University's Center for Regional Development to measure the gap between counties in Tennessee. The current data indicates broadband infrastructure upgrades and digital literacy skills training are essential components of community economic development.

Based on the success of a pilot study of providing mobile hotspots through public libraries to improve digital connectivity for underserved and economically distressed communities in rural Tennessee, University of Tennessee Extension expanded the library mobile internet hotspot program. The program now serves six public libraries in Hancock, Morgan, Grundy, Cannon, Polk, and Wayne counties as well as eleven elementary schools in Bradley County. This project is funded by a community-engaged seed grant through the Office of Research and Economic Development at University of Tennessee. A collaborative partnership with public libraries and University of Tennessee Extension will help provide the most benefit of this project to residents in these rural communities.

Another project funded by [One UT Collaboration and Innovation Grant](#) is aimed at developing training curriculum and materials focused around digital literacy skills, such as finding information online, communication and netiquette, and digital privacy. This capacity development program will engage, invest, and train rural residents in digital literacy skills across 68 Tennessee counties. Materials will also be translated into Spanish to increase the reach of the program. At the completion of the program a prize competition will be held for communities to create a Community Digital Inclusion Action Plan to promote sustainability of these programs after the project is complete.

These community projects are two efforts to bridge the Digital Divide in Tennessee. The Digital Divide impacts the everyday life of Tennesseans, and through collaborative actions like these, we can improve broadband access across the state.