A new Ohio University study brings needed attention to the digital divide issues in Appalachian southeast Ohio, a region lagging behind the rest of the nation. Lack of quality internet access, skills, and motivation are creating even more challenges as the nation and world transition to conducting vital business and communications to online environments during the COVID-19 pandemic.

The study, led by Dr. Laeeq Khan, an assistant professor and Director of the Social Media Analytics Research Team (SMART) Lab in the Scripps School of Communication, reveals that digital inequality in the region is particularly apparent, and troubling, when it comes to vital internet uses that help them to be more active in society.

"Digital inequality in the Appalachian Ohio: Understanding how demographics, internet access, and skills can shape vital information use," was being published in Telematics and Informatics in July.

While the fact that Appalachia has significant areas with no or poor internet access is well documented, this study focused on how well people can use the internet for vital tasks that help them to be more active in society.

The study found that even when Internet is available, several digital inequalities arise because citizens often lack the skills and motivations to pursue Vital Information Uses (VIU's) that can improve their quality of life. VIU can determine citizens' political and civic participation, societal contribution, and overall benefit to their communities. These Vital Information Uses are four key ways people can use the internet for basic social needs—health, employment, education, and social media.

"A significant percentage of Appalachian Ohio residents either have no internet at home, or have below average quality and reliability," Khan said. "This demonstrates the ongoing economic and infrastructure gap in the area, which leads to a development gap for people in the region."

Public facilities such as libraries help to bridge the access gap, though half of these internet users said they did not believe they were highly skilled in using the internet. Moreover, the region's institutions of higher education serve as the backbone of the local economy, providing employment and the needed education and training.

"There is a pressing need to strengthen federal and state initiatives and funding in areas that are already imparting such skills in the region," Khan said.

The study was completed early in March, and its findings have only been magnified since the global coronavirus pandemic forced many people to work or learn from home or lost employment as schools and businesses closed.

"Ready access to high quality internet has arguably never been more important in our society, highlighting the need to do all we can to ensure all
of Appalachia gets access to this basic service," Khan said. "Digital access and ability are key factors in ensuring citizens are able to participate in society to the highest extent possible and benefit their communities as a whole."

The study focused on the four VIU's in an effort to focus on goal-oriented internet use, as opposed to purposeless time-wasting activities. These four are:

- Health, including health tracking, appointments and services, and doctor-patient interaction. There is a benefit to having health information online, and while Appalachia is prone to diseases such as obesity, heart and lung disease, smoking and cancer, it’s an area that has less access to that health information. Due to COVID-19 and social distancing measures, tele-visits or telehealth services have become common and necessary in various parts of the country; however, without quality internet, the digital divide is set to further widen in Appalachian Ohio.

- Education. The internet provides a wealth of educational opportunities, both formal and informal, and internet access also has the potential to improve quality of learning. Statistics show that one in four low-income teens do not have a computer at home and one in five don’t finish their homework due to lack of digital access. Education levels in Appalachia trail the national average. While there have been efforts to provide laptops to those in need, access to quality internet requires timely infrastructure investments.

- Job searching. Internet availability could level the playing field for those seeking better employment opportunities. A person might get a job because the internet provides information about job opportunities. The Appalachian region has experienced higher levels of unemployment and lower income levels than the national average in part due to a lack of diverse employment opportunities. Lack of internet could also prompt companies looking for locations to avoid the area, as well.

- Social media use: Research has shown that if used well, social media can provide enormous benefits for disadvantaged individuals and communities. Social media can also serve as a vital source of news and information, though users also need a high level of information literacy to wade through the rampant misinformation often found there.

The study was conducted through surveys of people visiting libraries, farmer’s markets, and community centers in seven Appalachian counties in the Southeast Ohio region: Athens, Hocking, Meigs, Morgan, Washington, Perry, and Monroe counties.

Provided by Ohio University