Researchers aim to boost digital literacy skills of populations vulnerable to scams

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Senior citizens and minority communities are the most common targets for online scams such as phishing and identity theft. These groups stand

to benefit the most from digital literacy, yet they often have the lowest levels of knowledge in these areas, and educational programs are rarely suited to their needs. University of Kansas researchers have tested a program to find out what these adults need in terms of digital literacy and how to teach them those skills.

Researchers successfully designed and implemented an evidence-based digital literacy program for a traditionally underserved group and provided guidelines for future studies on how to serve marginalized groups through community-based research. The study is forthcoming in the *Journal of Applied Communication Research*.

Researchers in KU's Center for Digital Inclusion worked with low-income black adults at a senior center in the Kansas City metropolitan area. They conducted needs assessments for several months, meeting with participants and community partners to understand what the underserved population knew or wanted to know. Researchers then implemented a yearlong program.

"I think our research provides insight into community-based research, especially in terms of developing digital skills and literacy in traditionally underserved groups," said Hyunjin Seo, study co-author and associate professor in the School of Journalism & Mass Communications, who leads the Center for Digital Inclusion. "We hear a lot about disinformation and fake news online, and when you think about it, the people most vulnerable are those without relevant digital skills."

Through formative and evaluative research, including focus groups, interviews, document analysis and participant observations, researchers pinpointed the participants' main concerns:

- Keeping information secure online
- Assessing the credibility of information

- Safely navigating social media
- Finding relevant health information.

Seo wrote the article with Joseph Erba, assistant professor; Darcey Altschwager, master's student, and Mugur Geana, associate professor, all in the KU journalism school.

A top priority was avoiding a drawback that participants experienced in other computer and digital classes.

"There is a lack of programs that are directed at the specific needs of low-income, minority seniors," Seo said. "And we have heard from them and other marginalized groups that researchers and program coordinators can be perceived as dismissive and lacking patience and empathy."

The resulting course focused on delivering lessons in a respectful, empathetic way that emphasized all questions were welcome and could be adapted to meet individuals' learning styles. It also established community partnerships where participants could go to learn more and set realistic expectations for those involved.

Sessions focused on how to create secure passwords and evaluate if information was legitimate through various assessment processes, including fact-checking sites such as Snopes.com. Participants also learned how to keep passwords private and spot schemes seeking to gain web users' private information through methods designed to look official. The course also covered how to adjust privacy settings on social media and not divulge sensitive information. Many respondents reported having used social media in the past, but giving up or being afraid to try it because of fears of losing privacy. Other sessions focused on how users find relevant health information and how they can safely communicate with doctors and health providers online.

Study leaders also identified what kinds of information should not be shared on public computers or wi-fi networks, such as those at the participants' senior center or public libraries.

So far, the Center for Digital Inclusion has engaged more than 100 individuals from underserved populations through the educational and research programs, and programming will continue. Course participants showed much higher levels of digital and information literacy upon completion, and they were eager to share what they'd learned.

"We were very pleased to see how our program participants felt more empowered and how they would tell their friends 'this is how you set privacy settings on Facebook' or 'this is what to do if an email seems suspicious,'" Seo said. "One of the reasons I think we were able to maintain a long-term relationship with our community organizations and partners was our passion and commitment to supporting populations that have been marginalized. Also, I think it helped that our research team is very diverse and that it was clear we are committed to diversity and that it's not just something we talk about."

The researchers argue in their article that the findings show that not only can traditionally underserved populations be effectively reached with digital literacy training but that serving such groups is vitally important, given that they are the most often targeted with online disinformation and scams. However, in order to successfully reach such groups, intensive, multistaged, mixed-methods research is the most effective way to identify and meet their specific needs. That sort of work takes time, Erba said, but is worth it because it helps educate vulnerable populations and can pay off for researchers as well.

"We were very fortunate to have a wonderful instructor who was able to establish great rapport with the seniors. As some participants became more comfortable using computers than others, the instructor started to

pair seniors of different digital literacy levels to help each other, which also enhanced the overall learning," Erba said. "We realize that taking such a tailored approach takes time, but it really demonstrates the importance of knowing who your 'students' are as opposed to proposing a pre-made class."