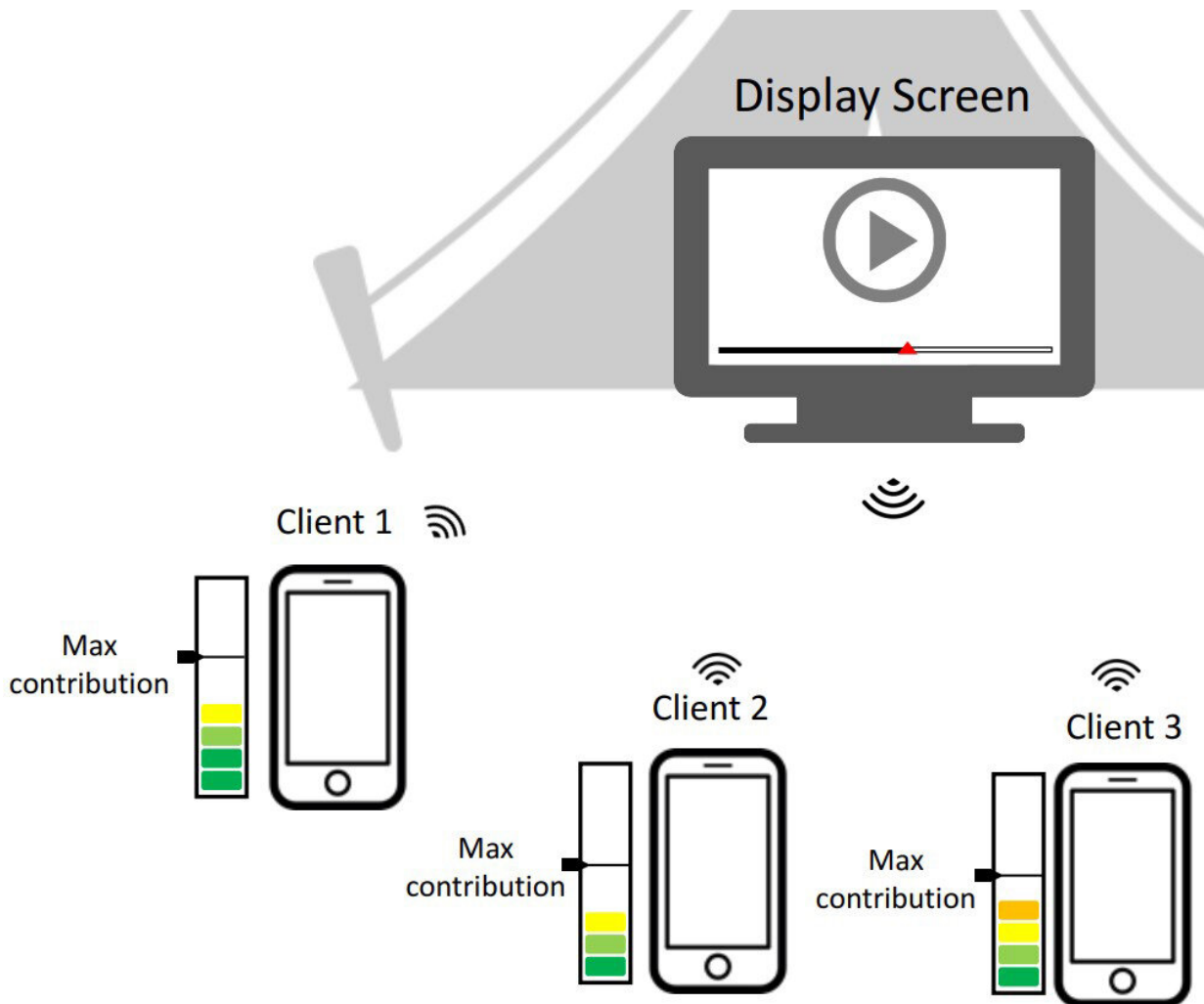


Video streaming framework allows users to download content collaboratively

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The Purdue algorithm technology accounts for different user preferences, data limits and provides an efficient streaming of the content with reduced stalls and high quality. Credit: Purdue University

Sharing a streaming video or watching the big game on a single electronic device can lead to a big fight: whose data plan is going to be used up for the event? Purdue University researchers have come up with technology that could open a new door for video streaming.

The researchers developed a novel [video](#) streaming framework that allows users to download content collaboratively. This [new technology](#) is an algorithm that allows everyone in that group to share the [video stream](#), which means higher video quality and lower data use per person.

"The key challenge was to develop an efficient streaming algorithm, which allows good user experience when watching high-quality video in challenging network scenarios," said Vaneet Aggarwal, an assistant professor in Purdue's College of Engineering and director of the Cloud Computing, Machine Learning, and Networking (CLAN) Research labs.

The Purdue algorithm technology accounts for different user preferences and data limits, and provides an efficient streaming of the content with reduced stalls and high quality. Aggarwal said the algorithm uses the different network interfaces provided by different devices and networks to create a seamless connectivity for improved user experiences. With multiple people's data being used, it also creates a higher streaming quality.

"Even though the advances in networking have been helping, the users' desires for higher quality video is still not met," Aggarwal said. "This technology is important and has the potential to fix the issues in watching content where the network of multiple devices and interfaces could be used collaboratively with individual preferences."

Aggarwal also said the technology could improve reception for campers in remote areas who want to share data and watch content.

Aggarwal and the team, including former doctoral student Anis Elgabli, have worked with the Purdue Research Foundation Office of Technology Commercialization to patent the [technology](#). They are looking to license it and are seeking collaborators for further development.

Provided by Purdue University

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