

# QoE in Collaborative Wireless Local Area Networks

Mónica Alejandra Lora Girón

Communication and Distributed Systems Group, RWTH Aachen University

## ABSTRACT

One of the major's contributions of Collaborative Wi-Fi Networks is to provide a widely distributed Wi-Fi access network in a low cost and ubiquitous way. In order to promote the participation of more actors (both Wi-Fi providers and users) and the success of this kind of emerging solutions is important to satisfy the expectations that the user has regarding the network and the services, increasing the Quality of User Experience (QoE)

As one might expect the wireless nature of the Collaborative Wi-Fi Networks imposes a set of challenges those have to be addresses in order to guarantee the QoE that the users are expecting.

In this talk, we outline research challenges encountered to improve the overall experience of the user of Collaborative Wi-Fi Networks. Our approach is to study the effect of the user's perception firstly modifying the way that the user picks the Access Point during the Wireless Association. We highlight how an association based on the selection of the Access Point with the largest RSSI does not guarantee the satisfaction of the expectations of the users. Second, we explain how avoiding duplicate data packets downloaded in the same BSS, improving the throughput of the BSS and the QoE.