Network impact on opportunistic content distribution

Résumé du projet de recherche (Langue 1)

Concert halls, stadium and bus waiting shelters are just few examples of places where collocation creates common interest between people. In such locations, it could be useful to locally exchange photos, audio files, travel informations, or headline news using what we always have with us: smartphones or tablets. These devices have witnessed a very quick evolution and a wide-spreading market penetration in the last few years, so that it is expected that traffic from wireless and mobile devices will exceed traffic from wired devices by 2016. A large user base wants to share their own generated content (UGC) to their own followers too. This is what currently happens with blogs or with the Web 2.0 and social web applications. In this context, all the evident advantages of opportunistic networks (fault tolerance, locality, scalability, infrastructure offloading) can lead to new content-centric or media-sharing mobile applications such as proximity chat, local social networks, or micro blogs.

Résumé du projet de recherche (Langue 2)

User generated content dissemination in opportunistic networks is particularly difficult, presenting specific challenges such as: -*

{{User interactions.}} Contact and inter-contact times can be extremely different. An efficient content dissemination protocol should be aware of the type of contact in order to modulate the right amount of content to transmit. -*

{{Content dissemination.}} Under these conditions, applications need a very fast, multi-content dissemination protocol to deal with short contact times. Moreover, users generate, consume and share contents that are becoming increasingly larger. -*

{{Wireless phenomena.}} Although opportunistic communications bypass the infrastructure, they still share the same medium, with the relative problematics of interferences. One of the objectives of this thesis is to study the interactions between these two kind of transmissions and how the dissemination performance will be affected.