Stochastic Modeling and Data Analysis of Dynamic Post Diffusion in Online Social Platforms

Mots clés: Array

- Directeur de thèse: Naceur Malouch
- Co-encadrant(s):
- Unité de recherche: Laboratoire d'informatique de Paris 6
- Ecole doctorale: École Doctorale Informatique, Télécommunications, Électronique de Paris
- Domaine scientifique principal: Sciences et technologies de l'information et de la communication

Résumé du projet de recherche (Langue 1)

The thesis will study Online Social Platforms, such as Facebook or Twitter. These platforms play a critical role in the circulation of news and ideas, so the mechanisms governing them need to be well understood, and regulated if necessary. In the scope of the thesis, the main questions to be addressed are the following:

Q1. How does the social platform mechanisms affect post diffusion and eventually the user influence over the social network? Special focus will be given on the Newsfeed mechanism, specific platform features (likes, comments, etc.) as well as the spread of fake news.

Q2. What is the appropriate way to include advertising in the platform, in order to respect fair post circulation?

Q3. What is the impact of orchestrated bot campaigns in social networks?

Methodology: The thesis will differ from existing approaches in the study of social platforms, by making principal use of stochastic modelling and performance evaluation tools to derive realistic models that can incorporate both the platform features, as well as the user activity. Once basic models are developed, algorithms of appropriate complexity should be introduced as solutions for real-world size social graphs. A very important part of the work will be to validate the results through the collection and analysis of data from real social platforms.