A PhD thesis aims to contribute a uniquely comprehensive account that improves on each of the above limitations. This is possible with the help of an original and extensive smartphone usage datasets that we plan to analyze. This thesis will thus provide policy recommendations on infrastructure and technological design development to improve and expand the social integration of individuals in contemporary societies. They have changed the cultural norms and behavior of individuals, bringing positive (e.g., by simplifying information access all the time, with high performance computing clusters, sensor networks), and the privileged relationships with prestigious industrial partners, all make Inria Saclay Île-de-France a key research centre in the local landscape and one that is oriented towards Europe and the world.

Contexte et atouts du poste

Today's smart handheld devices allow heterogeneous free data gathering of human surrounding environment and networking usage patterns anytime and anywhere. Hence, an unprecedented large amount of human sensory data (i.e., the Big Data era) can be collected and processed: opening ways to connect people, technology, and business. This big data implies advanced knowledge of humans' behaviour and interactions at a planetary scale and can help tackle networking challenges when used correctly.

As our lives become more dependent on connectivity, it is easier to see that people have become eager to engage with mobile applications and connected services. As a consequence, smartphones have turned from a means of communication to a tool with high potential impact on the social integration of individuals in contemporary societies. They have changed the cultural norms and behavior of individuals, bringing positive (e.g., by simplifying information access at the same time), with potential of facilitating better education systems in developing countries; by shortening geographical distances, social bonds are kept active, reducing stress while promising social support.

Current knowledge is fragmented because of the tendency of previous research to focus on: i) the study of specific behavior of smartphone use (ignoring thus complex interactions between behaviors), ii) small-N data on specific features of smartphone use, and iii) disciplinary-specific perspectives. Building on that knowledge, this PhD thesis aim to contribute a uniquely comprehensive account that improves on each of the above limitations. This is possible with the help of an original and extensive smartphone usage datasets that we plan to analyze. This thesis will thus involve tasks related to dataset processing, enrichment and modeling as well as data analysis and knowledge extraction.
Principales activités

The outcome of the thesis would be to build on the acquired human knowledge and technology usability to provide policy recommendations on infrastructure and technological design development to improve and expand the social integration of individuals.

Compétences

Candidates must have a Master of Science or equivalent degree in Computer Science or Electrical Engineering. The ideal candidate has a strong background on machine learning, protocol design, scripting, statistics, and data mining. Knowledge of social networking, or complex networks is a plus. Candidates must be fluent in written and spoken English.

Avantages sociaux

- Restauration subventionnée
- Transports publics remboursés partiellement
- Sécurité sociale
- Congés payés
- Aménagement du temps de travail
- Installations sportives

Rémunération

1,982 euros brut/mois durant les 2 premières années, puis 2,085 euros brut/mois durant la 3ème année