

Defesa de Qualificação de Tese: Felipe Timbó Brito

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Título: Differentially Private Release of Egocentric Networks with Opt-in and Opt-out Users

Data: **12/11/2019**

Horário: **14:00h**

Local: **Sala de Seminários - Bloco 952**

Resumo:

Egocentric networks are those focused on an individual and the people connected to it. By analyzing egocentric network data, researchers can better understand how an individual is

connected to their neighbors and how strong their relations are. For example, analysts can make more informed decisions about marketing strategies by identifying the most influential people in egocentric networks. Some of these networks may contain data from individuals who either opt-in or opt-out of allowing access to certain private information. However, releasing egocentric network data for analysis and statistical purposes without sufficient anonymization effort can result in privacy leakage for opt-out individuals, since they did not opt-in for the use of personal information by data holders. In recent years, Differential Privacy has emerged as the standard privacy definition for releasing data. It has been applied to a wide range of data sets and applications to provide strong privacy guarantees. In this work, we study the problem of releasing egocentric networks with opt-in and opt-out users while satisfying differential privacy. We propose two approaches based on edge and node differential privacy to publish egocentric graph data. Preliminary experiment results show that our approaches produce useful and private egocentric networks.

Banca:

- Prof. Dr. Javam de Castro Machado (MDCC/UFC - Orientador)
- Prof. Dr. César Lincoln Cavalcante Mattos (UFC)
- Prof. Dr. Jose Soares Andrade Junior (UFC)
- Prof. Dr. Divesh Srivastava(AT&T Labs-Research - USA)