

Unsupervised Scalable Statistical Method for Identifying Influential Users in Online Social Networks

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Resumen:

Billions of users interact intensively every day via Online Social Networks (OSNs) such as Facebook, Twitter, or Google+. This makes OSNs an invaluable source of information, and channel of actuation, for sectors like advertising, marketing, or politics. To get the most of OSNs, analysts need to identify influential users that can be leveraged for promoting products, distributing messages, or improving the image of companies. We propose a new unsupervised method, Massive Unsupervised Outlier Detection (MUOD), based on outliers detection, for providing support in the identification of influential users. MUOD is scalable, and can hence be used in large OSNs. Applying MUOD to a subset of roughly 400 million Google+ users, it has allowed identifying and discriminating automatically sets of outlier users, which present features associated to different definitions of influential users, like capacity to attract engagement, capacity to attract a large number of followers, or high infection capacity.

Sobre Antonio Fernández Anta:

Dr. Antonio Fernández Anta is a Research Professor at IMDEA Networks. Previously he was a Full Professor at the Universidad Rey Juan Carlos (URJC) and was on the Faculty of the Universidad Politécnica de Madrid (UPM), where he received an award for his research productivity. He was a postdoc at MIT from 1995 to 1997. He has more than 25 years of research experience, and more than 200 scientific publications. He was the Chair of the Steering Committee of DISC and has served in the TPC of numerous conferences and workshops. He received his M.Sc. and Ph.D. from the University of SW Louisiana in 1992 and 1994, respectively. He completed his undergraduate studies at the UPM, having received awards at the university and national level for his academic performance. He is a Senior Member of ACM and IEEE.