



# Inferring User Interests in the Twitter Social Network

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## 1. Overview

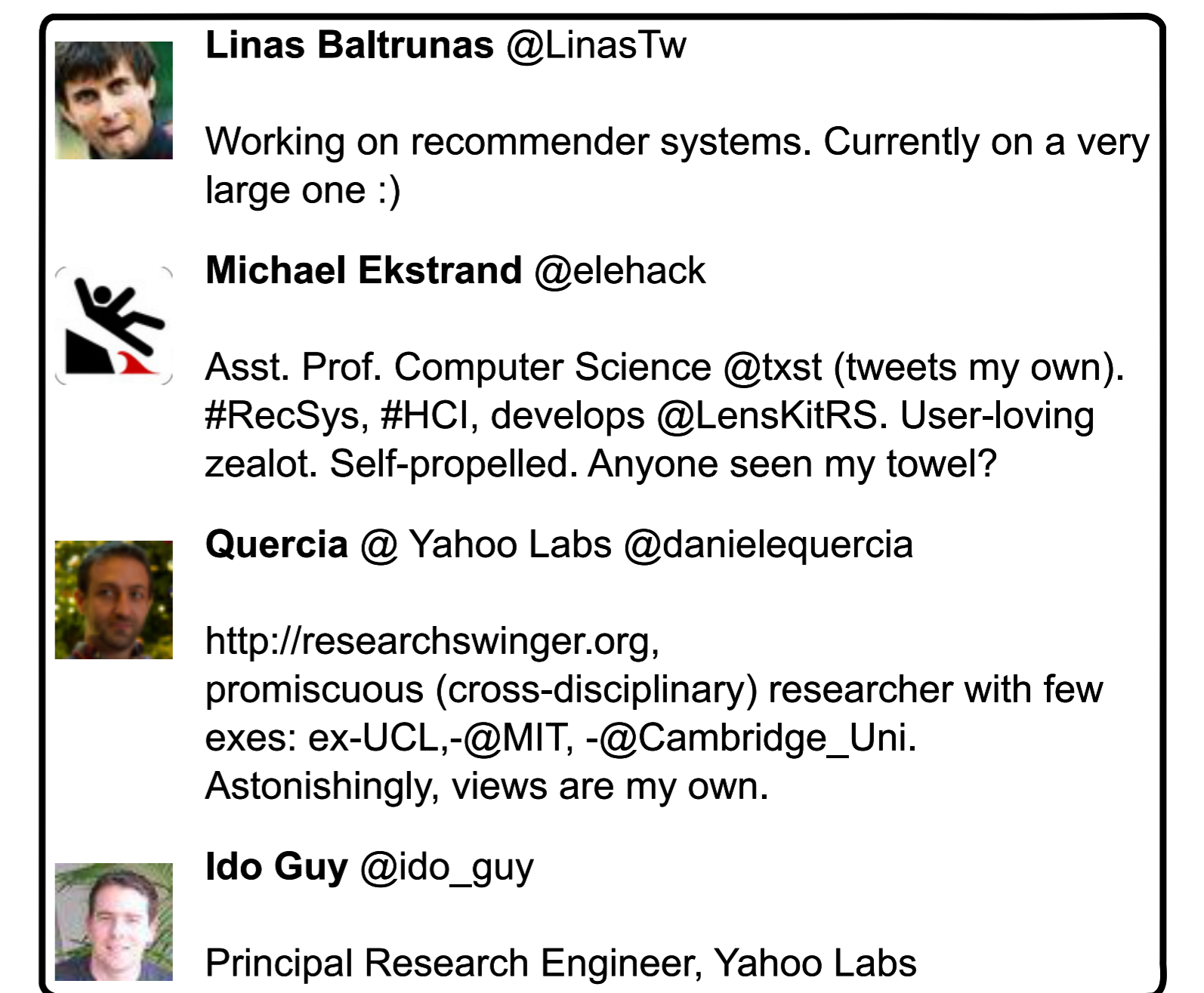
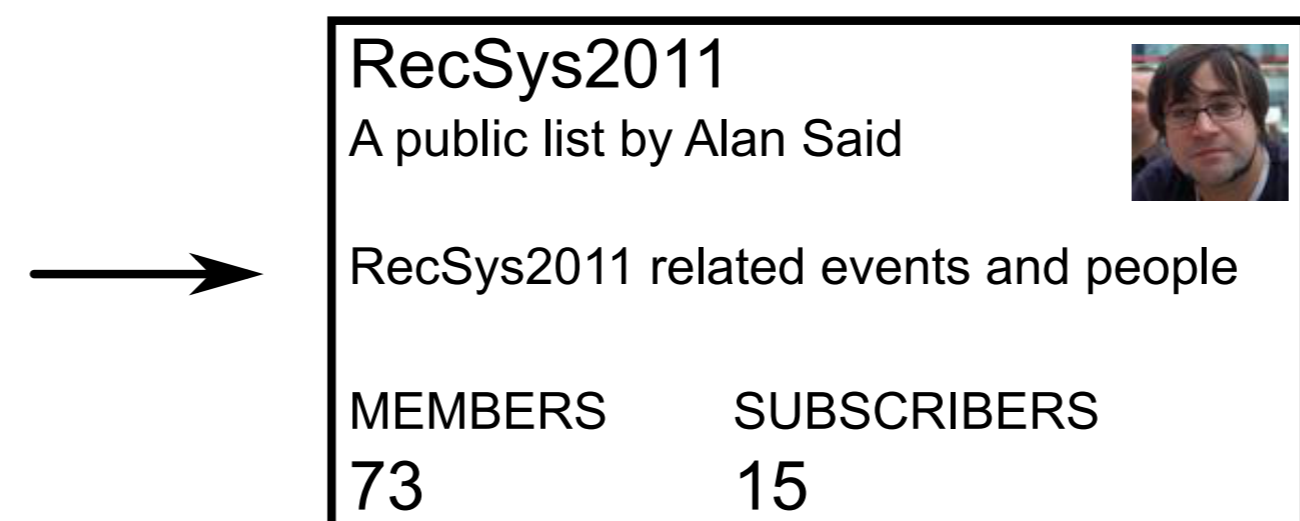
- How to find the topics of interest of a Twitter user?
- Intuition: Users follow experts on their topics of interest
- Novel method to infer user interests at scale
- Live system to infer interests for all active Twitter users
- Comparison against state of the art shows superiority

## 2. Motivation

- Inferring interests a prerequisite for recommendation
- Most current methods use content of Tweets for interests
- We use local network structure and social annotations
- Our methodology is robust towards scaling issues

## 3. Lists contain cues of user expertise

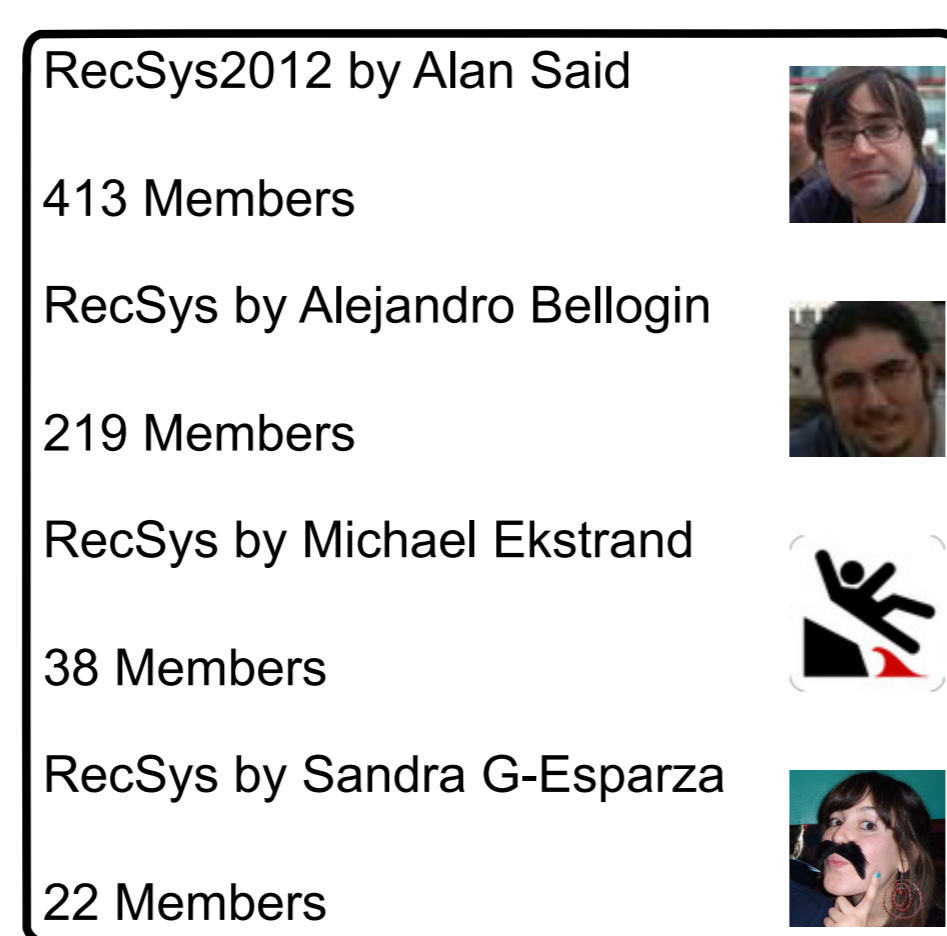
Alan created a list RecSys2011 to organize RecSys conference related users. In doing so Alan has given us cues, that these users are related to RecSys.



## 4. We curate lists from many sources to capture expertise

Xavier is member of a number of lists created by different users named RecSys. We can conclude with some confidence that Xavier is likely an expert in the area.

If one is included in many lists on the same topic, one is likely to be an expert on the topic.

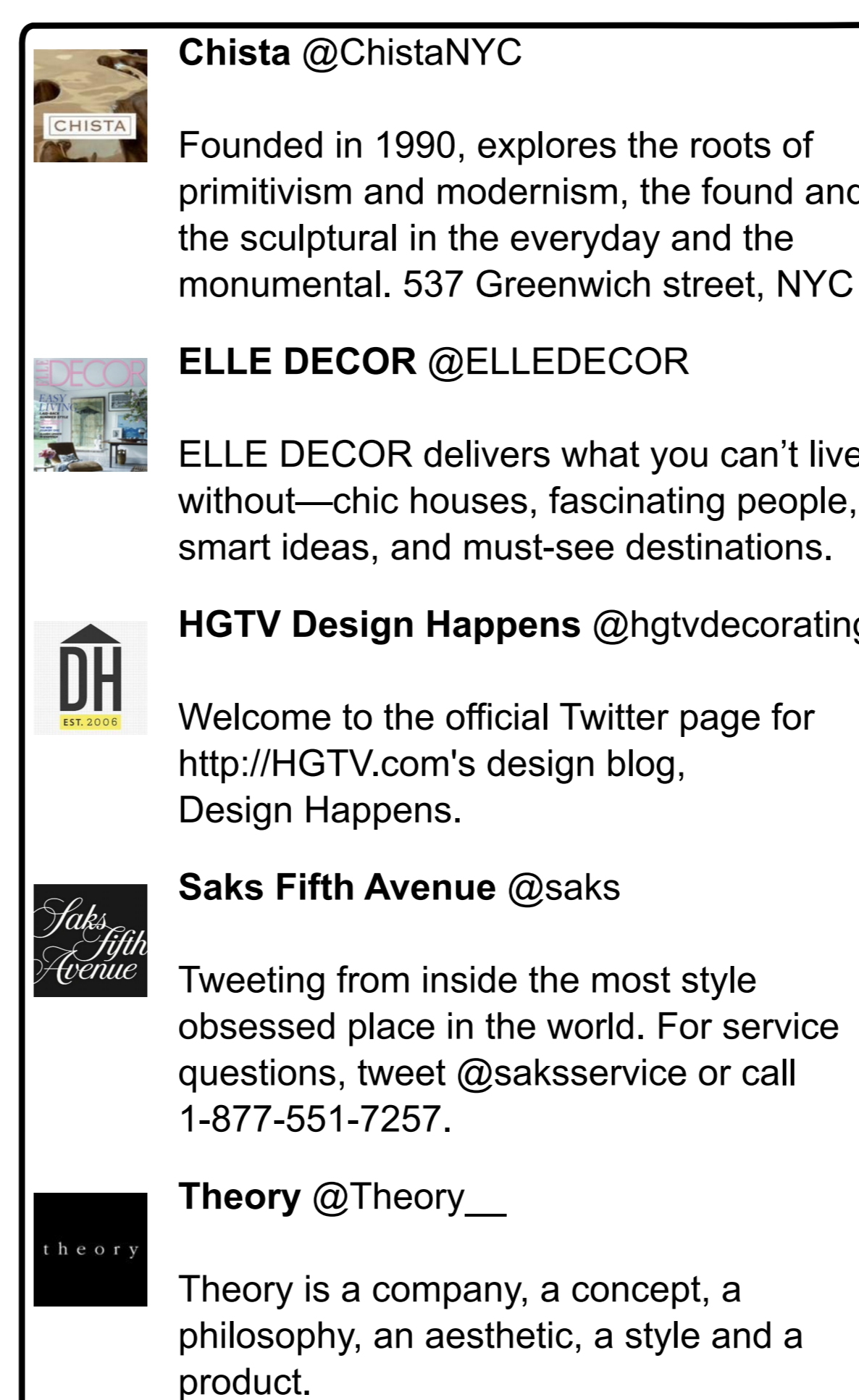


Tags obtained for Xavier Amatriain

## 5. We infer user interests from the expertise of users they follow

Michelle follows a number of known experts on interior design and retail shopping. So we can conclude that Michelle is likely interested in the topics of interior design and shopping.

If one is following many experts on the same topic, one is likely to be interested in the topic.



Interests for Michelle Zhou

## 6. Evaluation

- Compared with interests obtained from user bio
- Our method captured user interests when available
- Compared with interests obtained from Labeled-LDA on Tweets
- 10 volunteers compared interests obtained by the two methods
- Our method was judged more accurate and complete in 9/10 cases

## 7. Key Insights

- Social signals can be a better alternative to content based methods for interest inference
- Interests are passive traits which may not be visible in Tweets posted by the user
- Our system can be used as a platform for developing personalized recommendation systems in Twitter



[twitter-app.mpi-sws.org/who-likes-what](http://twitter-app.mpi-sws.org/who-likes-what)