

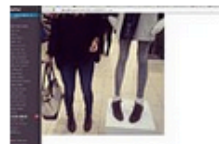
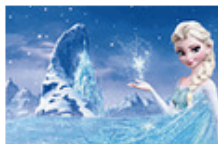
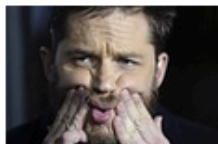


CS 8803 Social Computing: Trust

Munmun De Choudhury

munmund@gatech.edu

Week 11 | October 29, 2014



TOP POST
528,921 VIEWS



A Photo Of A Woman In A Homemade Hazmat Suit At The Airport Has Gone Viral

The passenger in the viral picture was seen at Dulles Airport in Washington, D.C., where U.S. Ebola victim Thomas Eric Duncan had a layover.

posted on Oct. 19, 2014, at 4:30 p.m.



Rachel Zarrell
BuzzFeed Staff

Follow 2.3k Follow



BuzzFeed NEWS



The Undocumented Immigrants Who Rebuilt New York After Sandy

by David Noriega

Connect with BuzzFeed News





TOP POST
528,921 VIEWS

A Photo of a Passenger in a Hazmat Suit Gone Viral

The passenger in a hazmat suit who was on a plane when U.S. Ebola cases were first reported

posted on Oct. 19, 2014, at 4:30 PM

 **Rachel Zarrella**
BuzzFeed Staff



NEWS



entertained
Rebuilt
Sandy
iega

Trust Breaks Down in
Electronic Contexts but Can
Be Repaired by Some Initial
F2F Contact

Summary

- The paper examines trust emergence in online contexts – one of the early works in this space (aka 1998).
- Experimental approach
 - » Groups of size six people were constructed, who met 3-5 times a week in a laboratory setting – there were 12 groups in all
 - » Main task was monetary investment in a market. The economic model was that of “social dilemma”.
 - » Email lists, supporting text based communication were used as the electronic communication tool
- Main finding – in the context of groupware technologies, a prior F2F meeting facilitated trust building in later electronic communication

Inferring Binary Trust Relationships in Web-based Social Networks

Summary

- The article examines trust in online social networks.
- Proposed two algorithms to infer trust relationships between individuals who are not directly connected.
 - Algorithms use structure of social network and trust ratings for the purpose.
 - Use only momentary snapshots of the social network, without any historical data.
- TrustMail, a prototype that uses variants of these algorithms to assign trust scores to emails in a user's inbox.
- Several properties of trust are discussed:
 - Transitivity
 - Asymmetry
 - Personalization, individual opinions aggregated into a collective score

Summary

- How the algorithms work:
 - Basic idea is trust label propagation – start with a source node, aggregate all edges with trust value 1, and propagate the score to the net node in the path of the target.
 - In the first each node rounds off the aggregate trust to a binary value, in the second, only the last node to the target rounds it off to a binary score.
 - The first algorithm outperformed the latter.

Twitter Under Crisis: Can
We Trust What We RT?

Summary

- The article examines use of Twitter in the context of a large disaster, the Chilean earthquake of 2010.
- Crisis tweets contain less diversity in their vocabulary usage, and are bursty in nature.
- Main finding – the propagation pattern of rumors are different from that of legit news, since rumors tend to be questioned more by the Twitter audience.
 - Rumors also lead to chaos, in the absence of verifiable information from traditional sources
- Hand curated set of confirmed truths and baseline rumors.

Summary

Case	# of unique tweets	% of re-tweets	# of unique "affirms"	# of unique "denies"	# of unique "questions"
Confirmed truths					
The international airport of Santiago is closed	301	81	291	0	7
The <i>Viña del Mar International Song Festival</i> is canceled	261	57	256	0	3
Fire in the Chemistry Faculty at the University of Concepción	42	49	38	0	4
Navy acknowledges mistake informing about tsunami warning	135	30	124	4	6
Small aircraft with six people crashes near Concepción	129	82	125	0	4
Looting of supermarket in Concepción	160	44	149	0	2
Tsunami in Iloca and Duao towns	153	32	140	0	4
TOTAL	1181		1123	4	30
AVERAGE	168,71		160,43	0,57	4,29
False rumors					
Death of artist Ricardo Arjona	50	37	24	12	8
Tsunami warning in Valparaiso	700	4	45	605	27
Large water tower broken in Rancagua	126	43	62	38	20
Cousin of football player Gary Medel is a victim	94	4	44	34	2
Looting in some districts in Santiago	250	37	218	2	20
"Huascar" vessel missing in Talcahuano	234	36	54	66	63
Villarrica volcano has become active	228	21	55	79	76
TOTAL	1682		502	836	216
AVERAGE	240,29		71,71	119,43	30,86

The basic premise of the first paper (Rocco et al) is that people face challenges in collaborative tasks involving electronic communication, because of risks deceitful behaviors. Is it less prevalent 16 years later?

The experimental setup by Rocco et al used the social dilemma model of economic investment. Could that have naturally lead participants to be suspicious of each other?

Would today's groupware tools like Skype, Google hangouts etc. help curb this mistrust perception observed by Rocco et al?

To what extent identity is important for building trust. Does anonymity naturally indicate lowered trust in networks?

If historical data on a user's SNS activity can be considered, how can this improve trust inference in networks?

Trust can be contextual and often times unlikely to be binary, rather continuous. How can user rating based methods scale to this observation?

Could reddit's link or comment karma be useful to infer trust? How would you use it? What are its limitations?

On Facebook and Twitter, users can't assign trust scores to others, except Facebook's "like" feature. Could the "like" feature be used for trust inference in any way?

On Twitter, what cues would you use to infer trust?

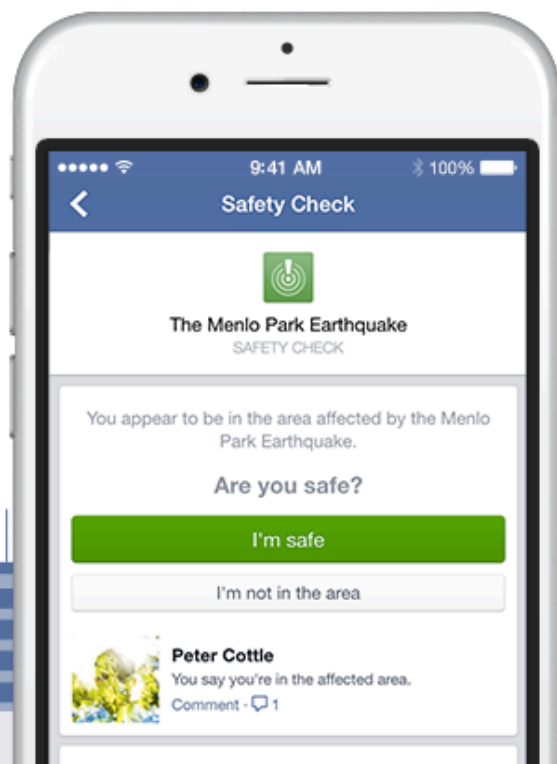
Mendoza et al study veracity of information related to a crisis event. Would the findings vary if it were not related to a crisis?

More questioning around a topic may also be because the topic is controversial. It doesn't necessarily mean it is a rumor. How can we distinguish between these two cases?



Safety Check

Connect with friends and loved ones during a disaster.



Next class

- Monday 11/03
- Topic: "Polarization and Selective Exposure"
- Assigned readings due by 11:59 pm Sunday