

# Structure and Content on Twitter: The case of the European Refugee Crisis

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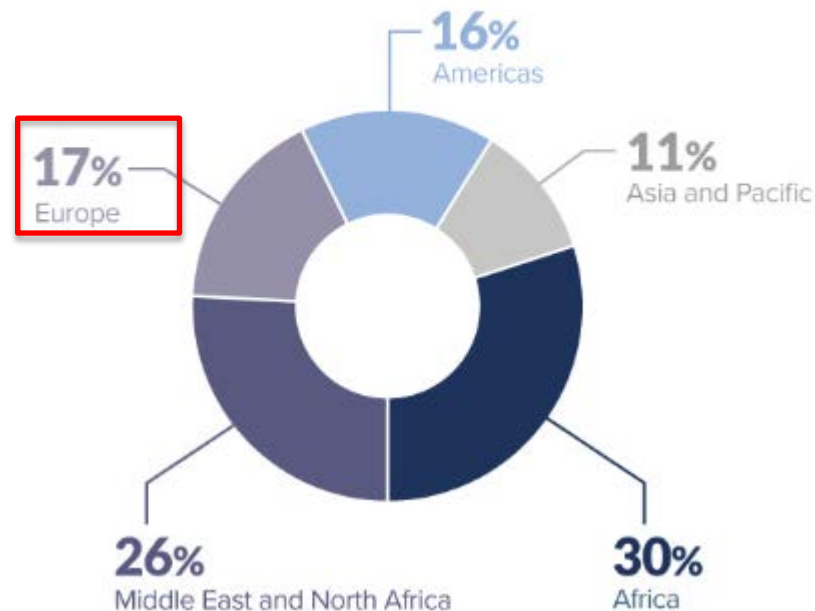


# Refugee crisis in a nutshell (as of April 2018)



**55%** of refugees worldwide came from three countries

**Where the world's displaced people are being hosted**



Source: UNHCR

## Negative comments from political figures in Europe

- Prime Minister **David Cameron**: “*swarms of people coming across the Mediterranean*”.
- Home Secretary **David Blunkett**: referred to child asylum seekers as ‘*swamping*’ some British schools.
- **Marine Le Pen**, National Front party France, referred to the wave of refugees as “*migrant anarchy*.”
- Luxembourg Foreign Minister **Jean Asselborn**: “We are heading into *anarchy*.”
- Greek Prime Minister **Alexis Tsipras**: “We will not accept turning the country into a permanent warehouse of souls.”

A photograph of a woman and two children in a dark, distressed environment. The woman, wearing a patterned headscarf and a brown jacket, is covering her face with her hand. A young girl in a pink shirt sits next to her, looking directly at the camera. Another child in a grey jacket is lying down in the foreground. The background is a dark, textured wall with peeling paint.

# Refugee or Migrant?

Word choice matters.

© UNHCR/Andrew McConnell

 **UNHCR**  
The UN Refugee Agency



# European refugee/migrant crisis



The screenshot shows the Wikipedia article titled "European migrant crisis". The title is highlighted with a red box. Below the title, the text reads: "The **European migrant crisis**,<sup>[n 2]</sup> or the **European refugee crisis**,<sup>[n 3]</sup> is a term given to a period beginning in 2015<sup>[10]</sup> when rising numbers of people arrived in the European Union (EU), travelling across the Mediterranean Sea or overland through Southeast Europe. These people included asylum seekers, but also others such as economic migrants<sup>[11]</sup> and some hostile agents, including Islamic State militants disguised as refugees or migrants.<sup>[12][13]</sup>" A red arrow points from the red box to the text "European migrant crisis, [n 2] or the European refugee crisis, [n 3]".

Article Talk

Read Edit View history

## European migrant crisis

From Wikipedia, the free encyclopedia

*This article is about the 2010s crisis. For the 1940s crisis, see [World War II evacuation and expulsion](#).*

*See also: [Timeline of the European migrant crisis](#)*

The **European migrant crisis**,<sup>[n 2]</sup> or the **European refugee crisis**,<sup>[n 3]</sup> is a term given to a period beginning in 2015<sup>[10]</sup> when rising numbers of people arrived in the European Union (EU), travelling across the Mediterranean Sea or overland through Southeast Europe. These people included asylum seekers, but also others such as economic migrants<sup>[11]</sup> and some hostile agents, including Islamic State militants disguised as refugees or migrants.<sup>[12][13]</sup>

**European migrant crisis,<sup>[n 2]</sup> or the European refugee crisis,<sup>[n 3]</sup>**

Labels imply two different frames:

- 'Refugee' – people **fleeing** conflict or persecution
- 'Migrant' – **improving** economic situation
- Mixed usage and mislabeling have implications for refugees, e.g., negative influence on perceptions of host countries

## Positivity and sympathy



**Lotte Leicht** ✓

@LotteLeicht1

Follow

Wonderful "[#REFUGEES WELCOME](#)".  
Banners draped across football stadiums in  
[#Germany](#) this weekend. Via [@markito0171](#)



**Mhairi Black MP** ✓

@MhairiBlack

Follow

Tired of hearing the word 'migrant' used to  
describe the victims of this crisis. Call them  
refugees or what they actually are - human  
beings

## Negativity



**Donald J. Trump** ✓

@realDonaldTrump

Follow

Refugees from Syria are now pouring into our  
great country. Who knows who they are -  
some could be ISIS. Is our president insane?



**FIXATED INFIDEL** 🤖

@SharonUren

Follow

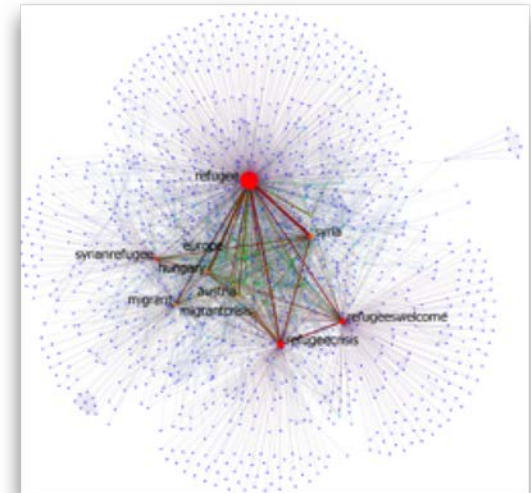
Won't be long before the rapes start.  
[#refugeesNOTwelcome](#) We all know their  
mindset. All Hell is going to be let loose,  
soon. [#auspol](#)

Social media affords users' agency in shaping narratives and in  
changing how events are covered, which in turn may become  
significant influencers of emotions

(Hamdy & Gomaa, 2012; Mäkinen & Wangu Kuira, 2008; Papacharissi, 2015; Sobkowicz et al., 2012)

# Previous work: Refugee or Migrant crisis?

- #Refugee\* is more **positive** and less **intense** than #Migrant\* -> more sympathetic (+H1 )
- Popular (and “influential”) users are **less provocative** and muted in sentiment (~H2).
- Lack of Intensity produces more retweeting (~H3).
- Negativity begets more retweeting than positivity (~H4), but so does #Refugee\* (strongly), which is more positive



Negative F	Positive				
	0	1	2	3	4
0	35.51%	6.15%	4.29%	0.17%	0.01%
-1	23.33%	4.16%	0.88%	0.05%	0.01%
-2	16.54%	2.39%	0.67%	0.08%	
-3	3.61%	1.29%	0.49%	0.01%	
-4	0.28%	0.08%			

(a) Tweets containing Migrant hashtags

Negative F	Positive				
	0	1	2	3	4
0	46.49%	7.81%	5.27%	0.25%	0.01%
-1	17.42%	4.87%	1.69%	0.12%	0.01%
-2	8.16%	2.88%	0.72%	0.05%	
-3	2.86%	0.85%	0.28%	0.02%	
-4	0.19%	0.05%	0.02%		

(b) Tweets containing Refugee hashtags

Negative F	Positive				
	0	1	2	3	4
0	43.32%	6.28%	9.24%	0.10%	0.01%
-1	16.86%	5.90%	0.93%		
-2	12.76%	1.08%	0.25%		
-3	1.99%	0.34%	0.15%	0.01%	
-4	0.77%	0.01%			

(c) Tweets containing both Migrant and Refugee hashtags

# Previous work: Refugee crisis: Label Use and Perceived Agency, Economic Cost, Permanence, and Threat

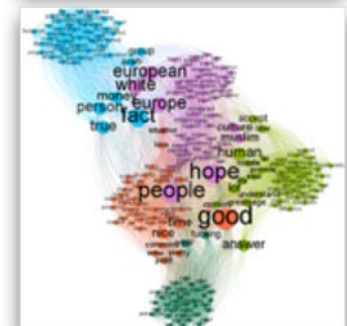
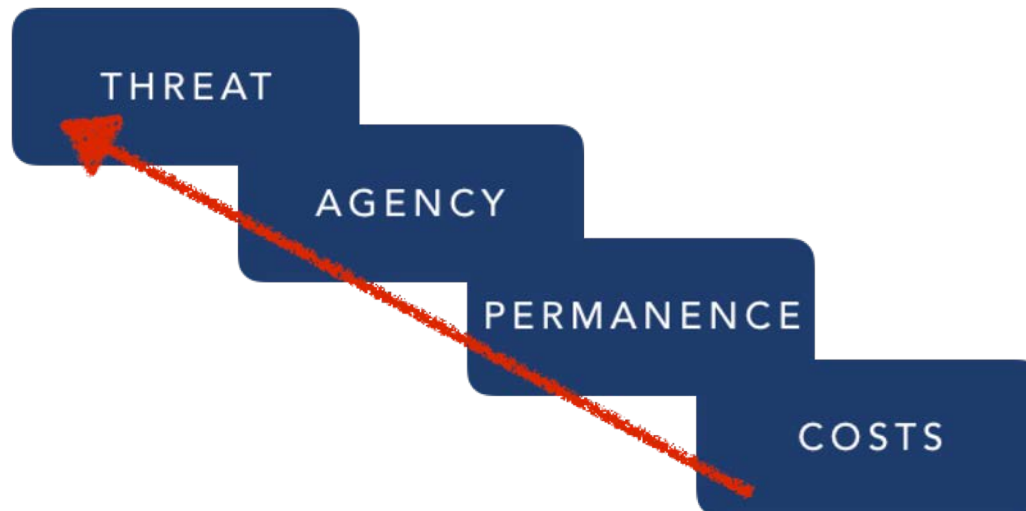
<i>Dependent variable:</i>	
	Sentiment
Agency	-0.242*** (0.033)
Economic Cost	-0.109* (0.053)
Permanence	-0.194*** (0.054)
Threat	-0.586*** (0.053)
Observations	60,184
Log Likelihood	-100,934
<i>Note:</i> ** $p < 0.01$ ; *** $p < 0.001$	

**Agency:** actors' having relatively higher agency in crossing-borders

**Permanence:** whether or not actors are expected to permanently reside in a host country

**Economic Cost:** refers to the expectation of economic costs incurred by the presence of these actors in a host country

**Threat:** actors have been portrayed as constituting a criminal threat to host societies





## So what next?

The dynamic co-evolution of opinions and influential Twitter users in the refugee crisis debate

- Dynamics of Twitter opinions on the refugee crisis
- Co-evolution of opinion leaders and content on Twitter
- Positioning of influential Twitter users in the refugee crisis debate

### Twitter - #Refugee\* and #Migrant\*

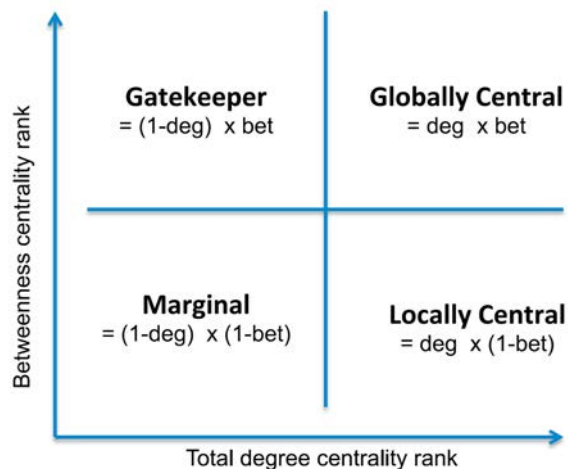
- Tweets including top 10 used **hashtags**
- 103,995 original tweets and 48,495 unique users

Dataset	Period	All	EN Tweets	Per Day
<i>Sep15</i>	04-09-2015 – 05-09-2015	497244	50411	25205.5
<i>Oct15</i>	01-10-2015 – 07-10-2015	164847	22455	3207.9
<i>Apr16</i>	01-04-2016 – 07-04-2016	106296	13664	1949.1
<i>Oct16</i>	01-10-2016 – 07-10-2016	95758	10814	1544.9
<i>Apr17</i>	01-04-2017 – 07-04-2017	61196	6651	950.1
Total		925341	103995	

# Methods (ii): Network Measures

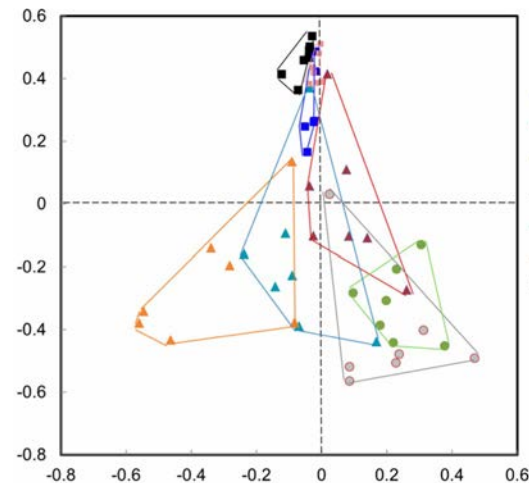
## Socio-semantic networks (2-mode)

- Linkages between actors and semantic structures
- Characteristic of users: Influence
  - Weighted Degree centrality
  - 2-mode Betweenness centrality (Everett & Borgatti, 2005)
- Structural space or 2-mode networks



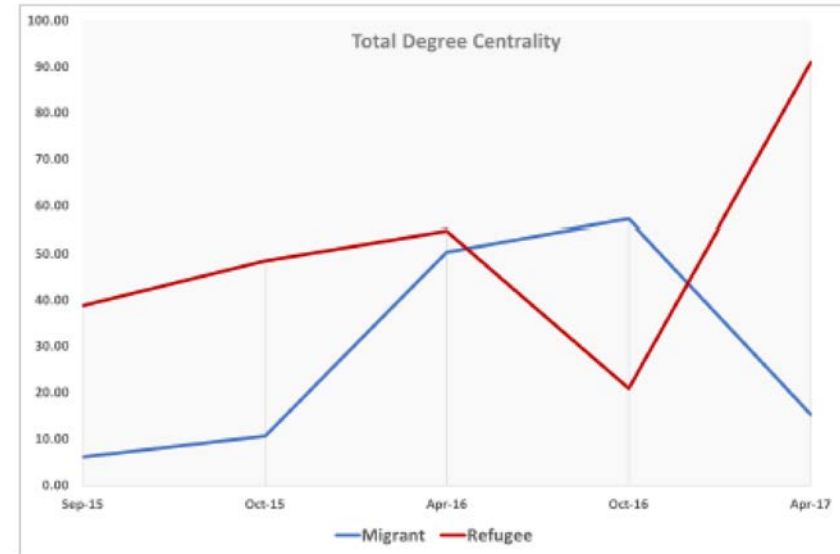
## Semantic networks (1-mode)

- Structure of co-occurring concepts (i.e., words and hashtags)
  - Weighted Degree centrality
  - Betweenness centrality
- MDS representation of network dissimilarity based on QAP correlations

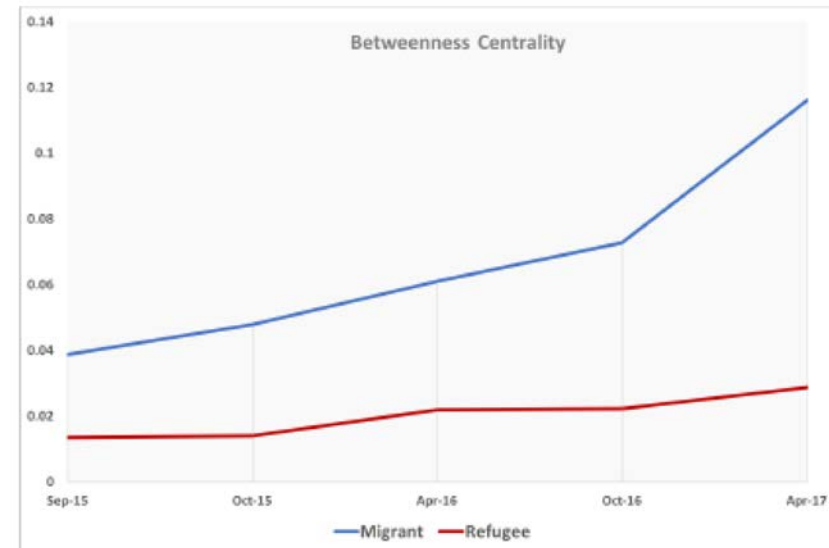


# Refugee vs. Migrant

- Rise in the co-usage of these key concepts among other concepts (degree)
- Sharp upturn for 'migrant' after Oct15
- By Oct16, 'migrant' more co-used than 'refugee'
- Apr17, 'refugee' more relatively prominent than before
- Notable coinciding shifts in the positioning of these two concepts throughout the crisis



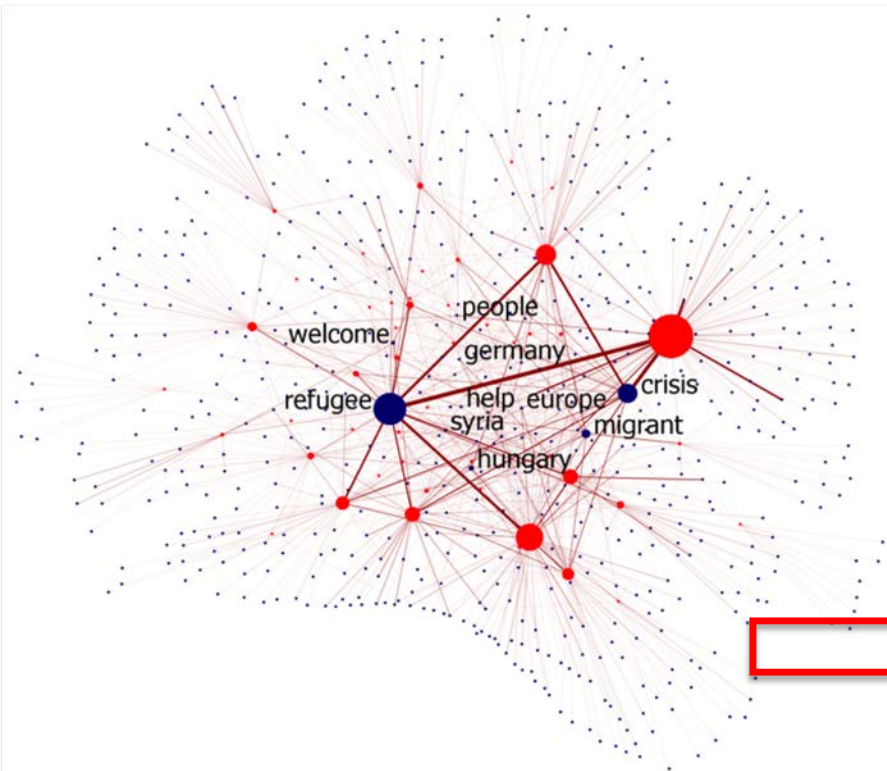
(a) Degree



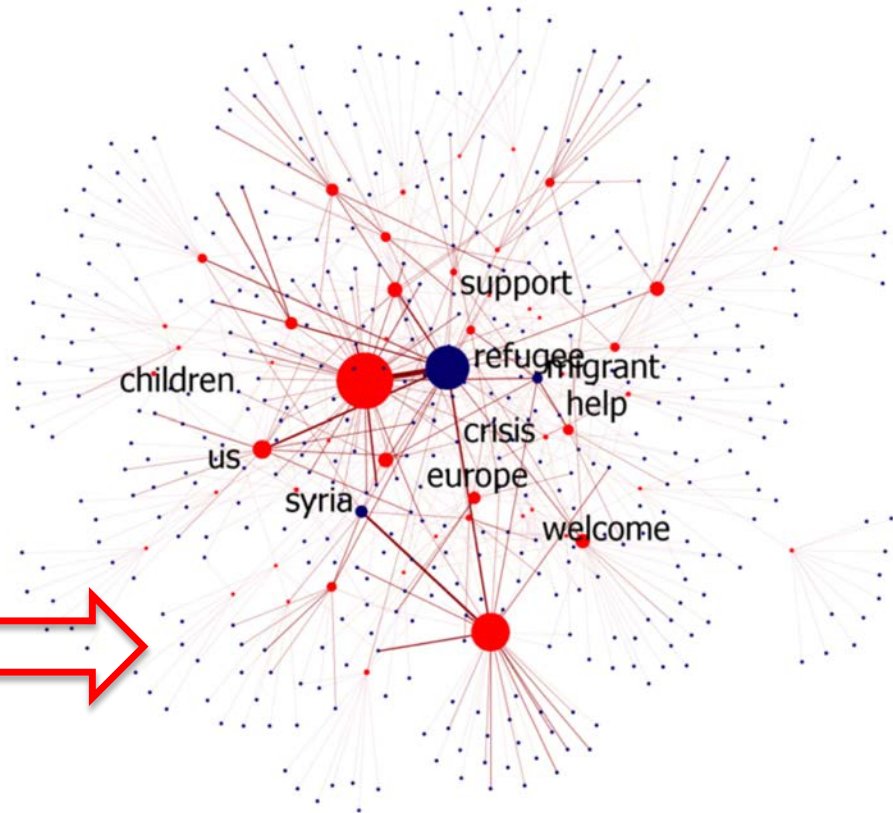
(b) Betweenness

# Socio-semantic Networks:

## 50 highest influential users and their concept usage



(a) Sep15



(e) Apr17

● User

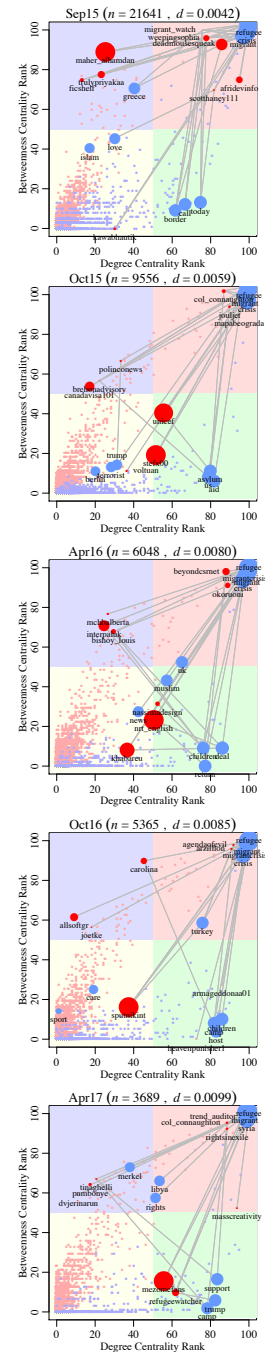
● Concept

\*Nodes sized by weighted degree centrality

\*\* Force-directed algorithm

## Structural Space Results

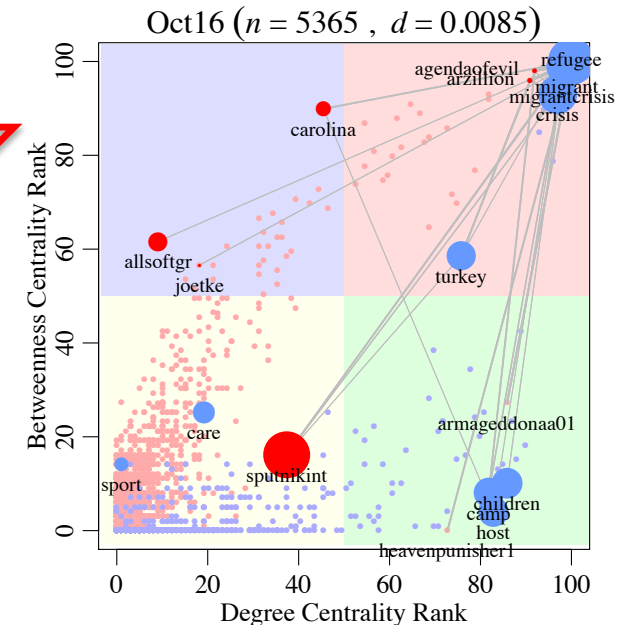
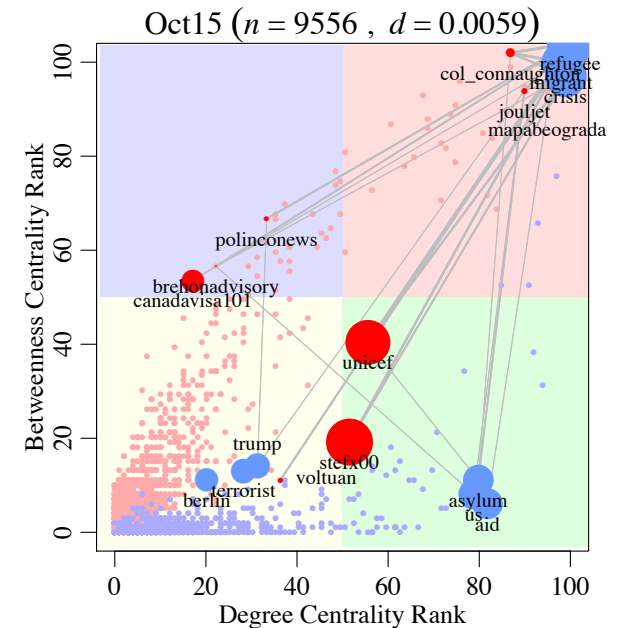
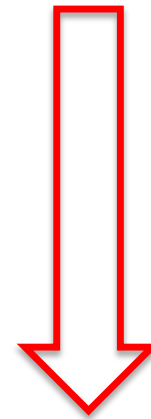
- 'refugee', 'migrant', and 'crisis' at the center of the debate (GC) throughout
- Aid organizations enter the debate strategically positioned to span discussion communities
- By Oct16, charitable and issue-oriented organizations are replaced by 'self-proclaimed' activists
- Marginalized issues and individual enter the debate (refugee camps within Africa)





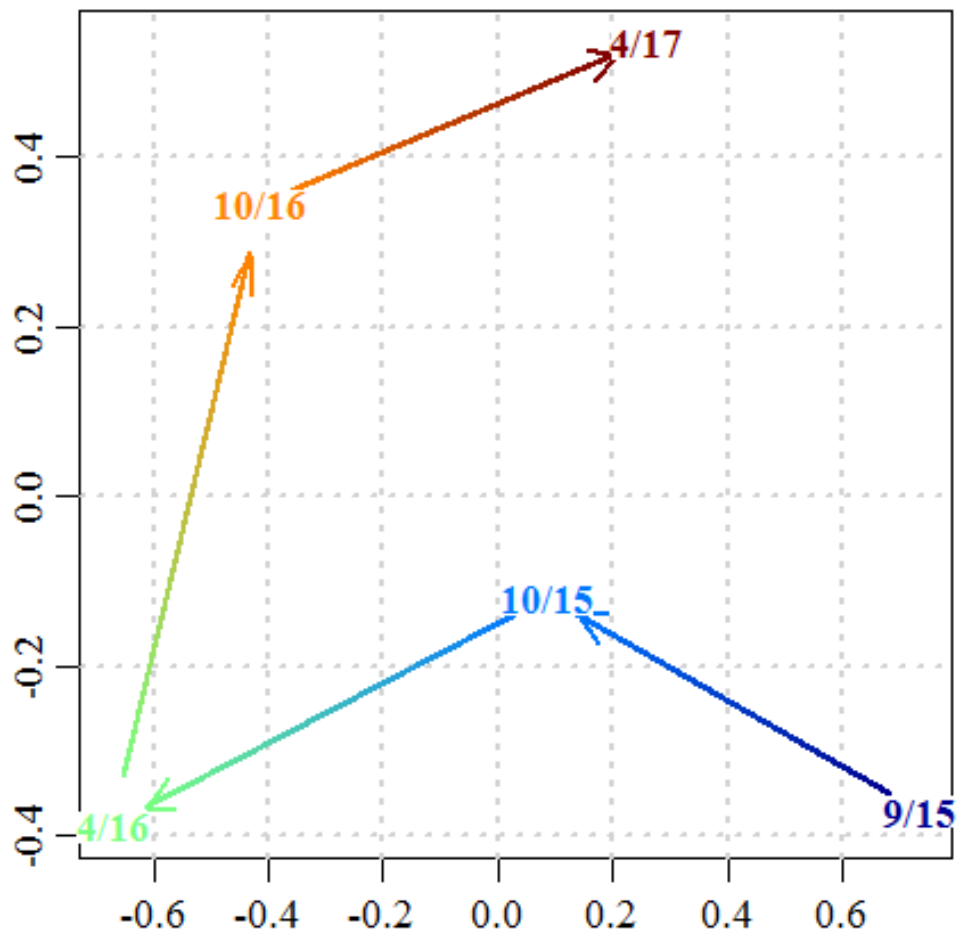
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# Dynamics of Discussion: MDS of Semantic Network dissimilarity

- Sep15 and Oct15: exhibit as much dissimilarity as the other period jumps do (as already observed through the structural space)
- Apr17 exhibits a return to the earlier Sep15
- Oct15: most overall similarity to all the other time periods
- The debate circles that of Oct15 rather than departing away into a new trajectory.



	Sep15	Oct15	Apr16	Oct16	Apr17
Sep15	—	0.201	0.059	0.100	0.134
Oct15	0.201	—	0.153	0.260	0.353
Apr16	0.059	0.153	—	0.189	0.126
Oct16	0.100	0.260	0.189	—	0.194
Apr17	0.134	0.353	0.126	0.194	—

## In a nutshell...

- Increasingly elaborative co-use of **contrasting** characterizations of the crisis
- Debate dominated by 1-2 constantly **changing** users
- Twitter users -- highly relevant -- emerge as both **central** to their own discourse as well as **gatekeepers** in divided thematic areas
- Uniquely **positioned** to (re)shape the narrative on the refugee crisis, these users **do not** maintain their strategic positions in this divided debate
- A **reversal** in the primary focus: from 'refugee' to 'migrant' and back to 'refugee'
- Discussion becomes increasingly **muted**: prominent discussants being less influential, less prolific or irrelevant.
- A **(re)shaping of the narrative**, as previously marginalized concerns embed themselves in the discussion
- The trajectory of the semantic structure: “**interest waves**” eventually return to a status quo (Lamba, Malik, & Pfeer, 2015)

# Thank you!



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