


## BEND and Information Maneuvers

Dr. Kathleen M. Carley  
[kathleen.carley@cs.cmu.edu](mailto:kathleen.carley@cs.cmu.edu)

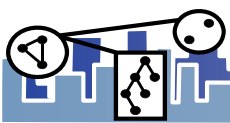

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### Information Maneuver

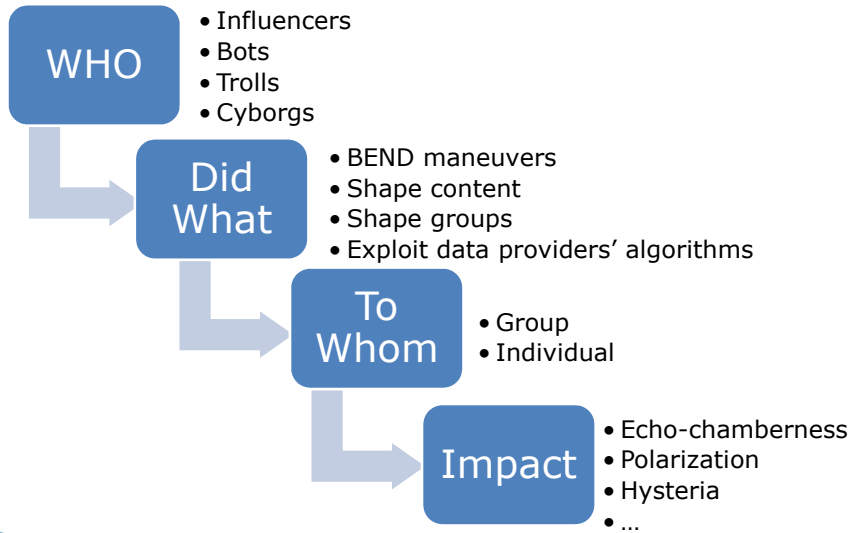
- An **information maneuver** is an action taken by the sender to achieve a specific effect with respect to the target.
- Sender – can be individual or group, may employ secondary actors
- Action – which of BEND categories
- Target – can be an individual or group



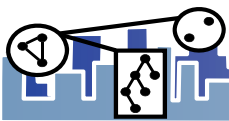
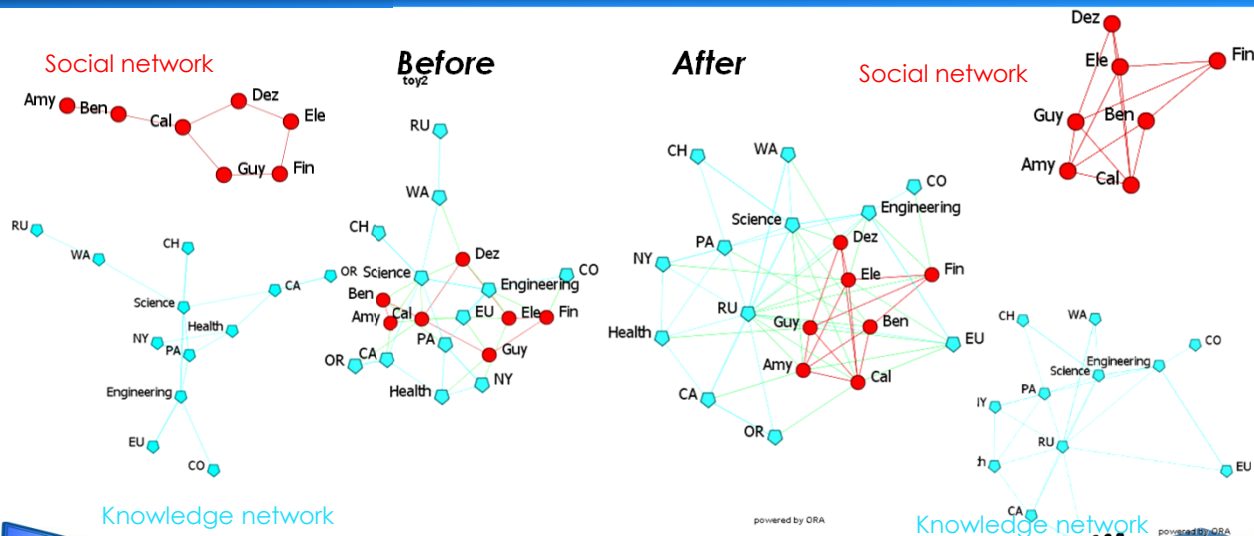
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## BEND Framework for Influence Campaigns



## A Successful Influence Campaign Can Turn a Topic Group into an Echo Chamber



# B.E.N.D.

## Community

(social network)

- Positive
  - Build
  - Back
  - Boost
  - Bridge
- Negative
  - Nuke
  - Neutralize
  - Neglect
  - Narrow

**B**

**N**

## Narrative

(knowledge network)

- Positive
  - Enhance
  - Explain
  - Excite
  - Engage
- Negative
  - Dismiss
  - Distort
  - Dismay
  - Distract

**E**

**D**

## Information Maneuvers to Manipulate the Narrative

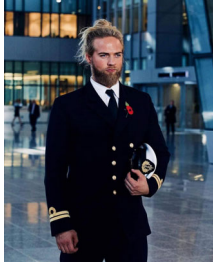
<b>Engage</b>	discussion that brings up a related but relevant topic	<b>Dismiss</b>	discussion about why the topic is not important
<b>Explain</b>	discussion that provides details on the topic	<b>Distort</b>	discussion that alters the main message of the topic
<b>Excite</b>	discussion that brings Joy, happiness, cheer, enthusiasm to group	<b>Dismay</b>	discussion about a topic that will bring worry, sadness, anger to group
<b>Enhance</b>	discussion that encourages the group to continue with the topic	<b>Distract</b>	discussion about a totally different topic and irrelevant



# Influence Operations and Memes

## Russian Meme

### Trident Juncture PR



Excite

Dismay



The Defense Ministers of Sweden, Norway, the Netherlands, and Germany.



The Defense Minister of Russia.

Impact

# Enhanced Narrative Through Evolving Memes

Dismay



The Defense Ministers of Sweden, Norway, the Netherlands, and Germany.



The Defense Minister of Russia.

Dismay

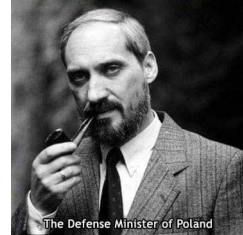
Enhance



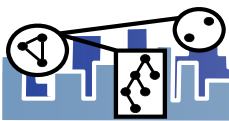
The Defense Ministers of Sweden, Norway, the Netherlands, and Germany.



The Defense Minister of Russia.




The Defense Minister of Poland.



## Enhance

Positive

*discussion about why the topic is important, adding information*



Russia Insider @RussiaInsider · 8h  
Israel's 'Iron Dome' Air Defence is a Failure. Russia's Systems Actually Work - Here's Why [russia-insider.com/en/israels-iro...](https://russia-insider.com/en/israels-iro...)

Russian Insider  
Israel's 'Iron Dome' Air Defence is a Failure. Russia's Systems Actually Work - Here's Why ...

Enhance

Explain


Dismay

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## Dismiss


Negative

*discussion about why the topic is not important, belittling*



Russia Insider @RussiaInsider · Sep 2  
US Reveals Its Syria Strategy: 'Create Quagmires Until We Get What We Want' [russia-insider.com/en/us-reveals-...](https://russia-insider.com/en/us-reveals-...)

SYRIANS ARE BEING ATTACKED?




WE MUST HELP THEM BY ATTACKING THEM TOO


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## Information Maneuvers to Manipulate the Community

<b>Back</b>	actions that increase the importance of the opinion leader	<b>Neutralize</b>	actions that limit the effectiveness of opinion leader
<b>Build</b>	actions that create a group or the appearance of a group	<b>Nuke</b>	actions that lead to a group being dismantled or appearing to be dismantled
<b>Bridge</b>	actions that build a connection between two or more groups	<b>Narrow</b>	actions that lead to the group becoming sequestered from other groups
<b>Boost</b>	actions that grow the size of the group or make it appear to be growing	<b>Neglect</b>	actions that reduce the size of the group or make it appear to be shrinking


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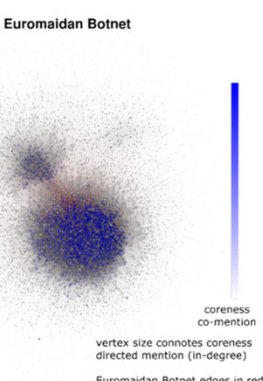


## Build

Positive



**Euromaidan Botnet**

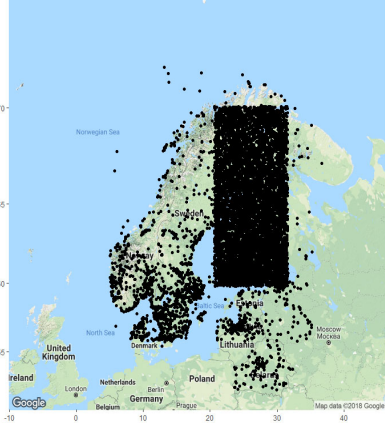


Directed Mention Network


vertex size connotes coreness  
directed mention (in-degree)  
Euromaidan Botnet edges in red

## Nuke


Negative



**Twitter Geo-Fence**



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## Build


Positive







## Nuke


Negative

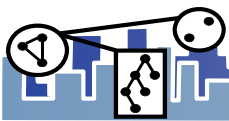


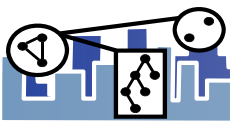
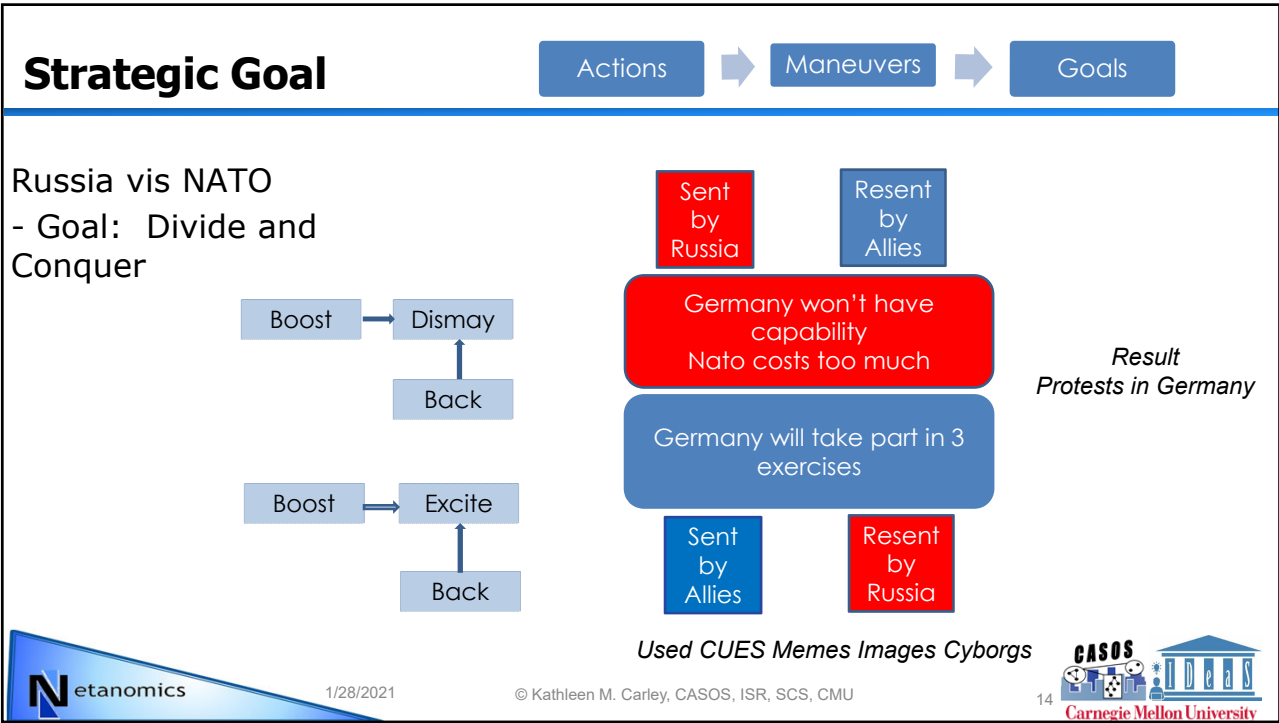
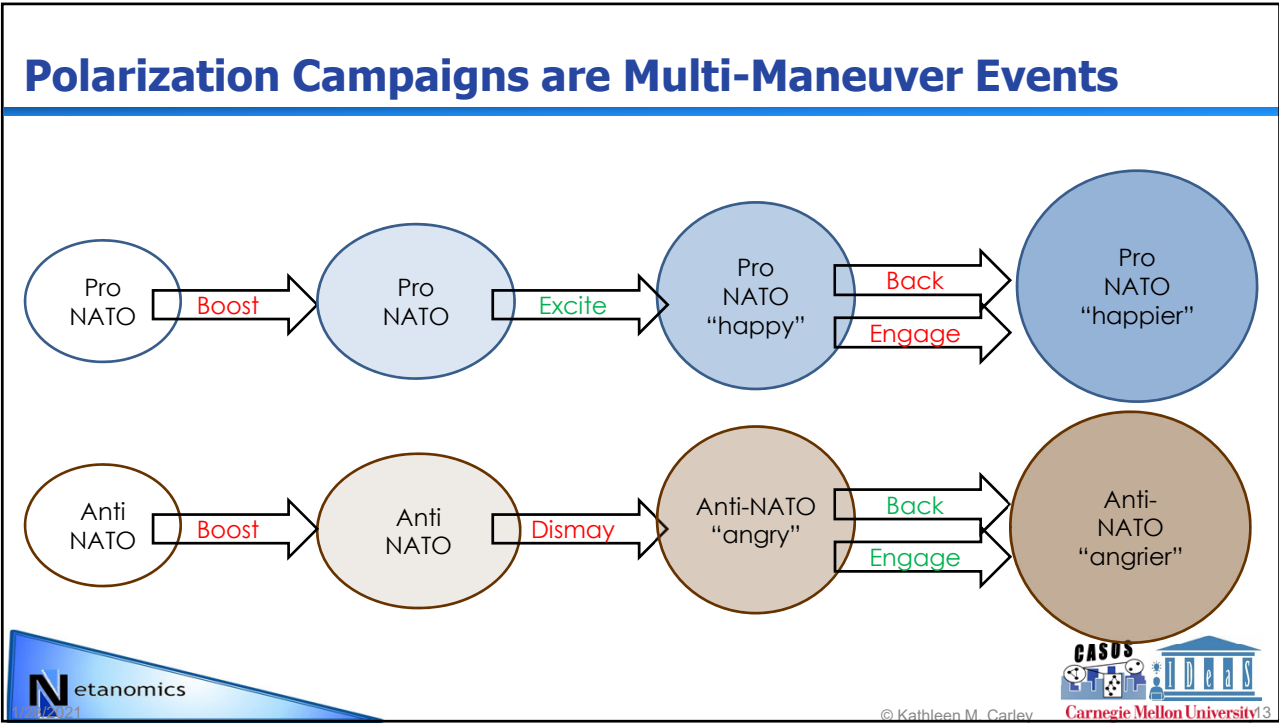



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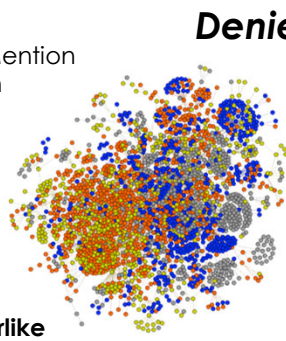


## Bot Campaigns & Structure Differ for Climate Change Deniers and Believers

Orange – Bot Retweet  
 Yellow – Non Bot Retweet  
 Grey – Non Bot Mention  
 Blue- Bot Mention

- Build
- Bridge
- Dismay
- Distort

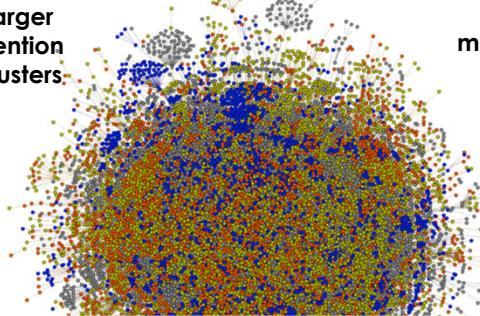
Coordinated retweets  
 Echo-Chamberlike



**Deniers**

Larger Mention Clusters

**Believers**



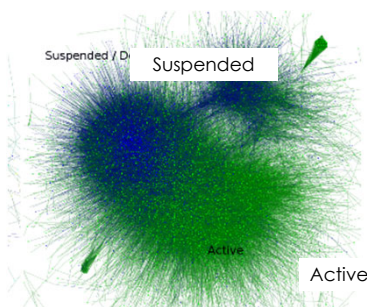
Random Retweet and smaller mention clusters

- Engage
- Explain
- Bridge
- Narrow

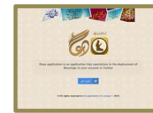
	Deniers	Believers
<b>Echo-Chamberness</b>	0.007 (2,170)	0.006 (15,640)
<b>Super-spreader</b>	0.48%	0.37%
<b>Super-friend</b>	0.38%	0.28%

## Social Influence Bots Can Manipulate Topic-Groups using sets of BEND maneuvers

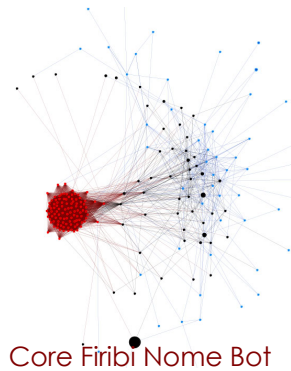
Syria Focused Extremist Topic Group  
 "Dense Community"



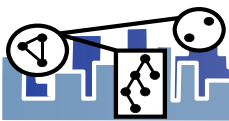
Firibi Benefactor



App Sign Up, solicits donations for children of Syria



Firibi Follower





## B.E.N.D. & Firibi Nome

**Build** – Firibi Nome bot @mentioned each other thus creating a group


**Back** – Firibi Nome bots followed Imam increasing his perceived level of influence


**Bridge** – This bridged a connection between the Imam’s topic group and the Firibi Nome’s group

**Dismay** – Messages were sent about needs of children of Syria

**Back** – Messages were sent directing people to charity cite for children of Syria

*Firibi Nome Used Bots CUES Images*


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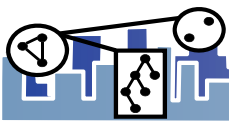


## China-sponsored Actors in Twitter

TOC	Specific Storylines	BEND Maneuvers
Era 1: Pre Nov '19		
Hong Kong Protests	Target protestors of repressive HK law	Back, Enhance, Neutralize, Dismay
	Respond to violence with iron fist	Enhance, Neutralize, Dismay
	Target pro-democracy candidate	Back, Excite
Guo Wen Gui	Love Hong Kong by supporting police	Back, Enhance
	Linking GWG to Steve Bannon & rapists	Neutralize, Dismay
Era 2: Post Nov '19	Linking GWG to far-right in Ukraine	Enhance, Dismiss
Hong Kong Protests	Protestors like thugs against justice	Enhance, Neutralize, Dismay
	Support police to protect Hong Kong	Back, Enhance, Neutralize, Dismay
	Hong Kong is part of China	Excite
	Ridiculing Hong Kong elections	Enhance, Neutralize, Dismay
Guo Wen Gui	Calling GWG a fugitive	Back, Explain, Enhance, Neutralize, Distort
	Calling GWG and NY Times hypocrites	Explain
	Linking GWG to Steve Bannon	Excite


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## Network clusters with the most bots involved *excite* and *dismay* campaigns

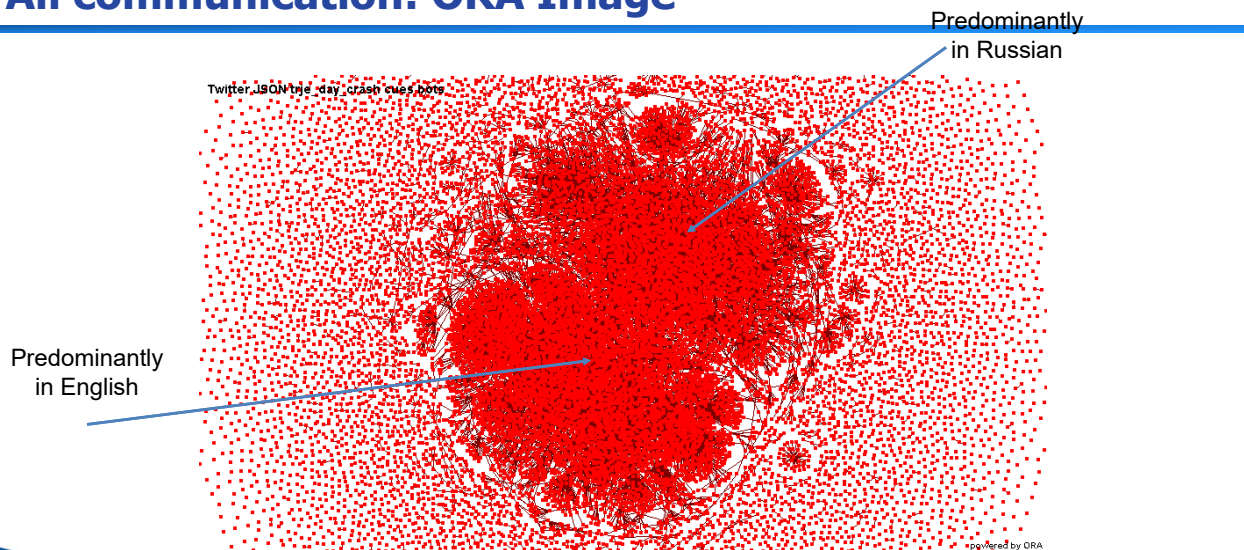
- **Excite** campaigns had to do with framing opposition candidates as ideal leaders
- **Dismay** campaigns treated opposition as corrupt leaders wanting power

Table 3. Top hashtags in topics with most bot activity.

Case study	Topic	Bot activity	Hashtags
Philippine elections	Opposition campaign (focused on Roxas)	22.93%	OtsoDiretso, MarRoxas, RoxasTayo, OposisyonKoalisyon, TheLeaderIWant
	Opposition campaign (focused on Hilbay)	12.82%	HilbayForSenator, MarRoxas, TeamPhilippines, OtsoDiretso, OposisyonKoalisyon
	Anti-opposition, pro-Duterte	13.18%	NoToLiberalParty2019, NeverAgainToLP, ImeeSolusyon, NoToNeri, TeamDDS2019
Indonesian elections	Campaign for peaceful elections	11.11%	pilpres, pemiluadamai, KPU, Pilpres2019, kampanye
	Campaign for opposition (Subianto)	6.60%	AkalSehatPilihPrabowoSandi, SumbarMemilihPrabowoSandi, 2019PrabowoPresidentRI
	Campaign for incumbent (Widodo)	1.40%	OrangBaikDukungJokowi, 01Indonesiamaju, jokowilagi, 2019TetapJokowi

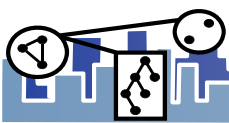


## All communication: ORA Image

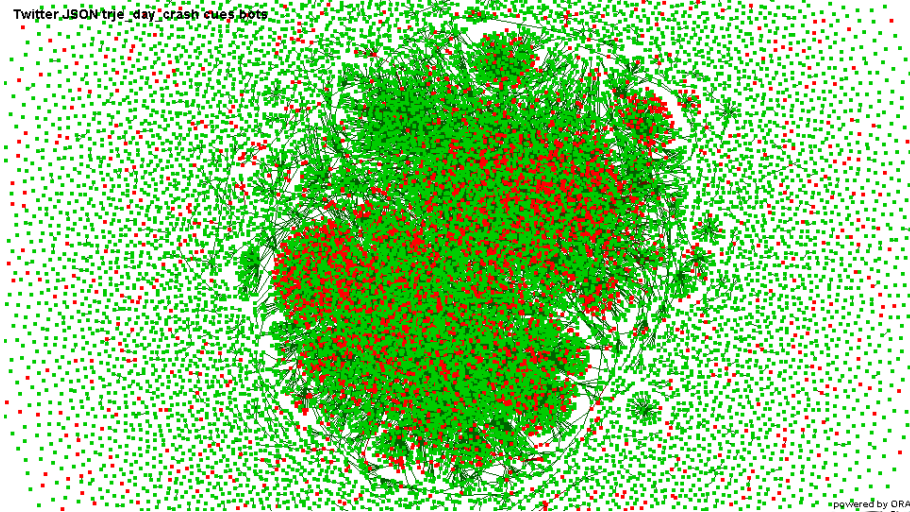


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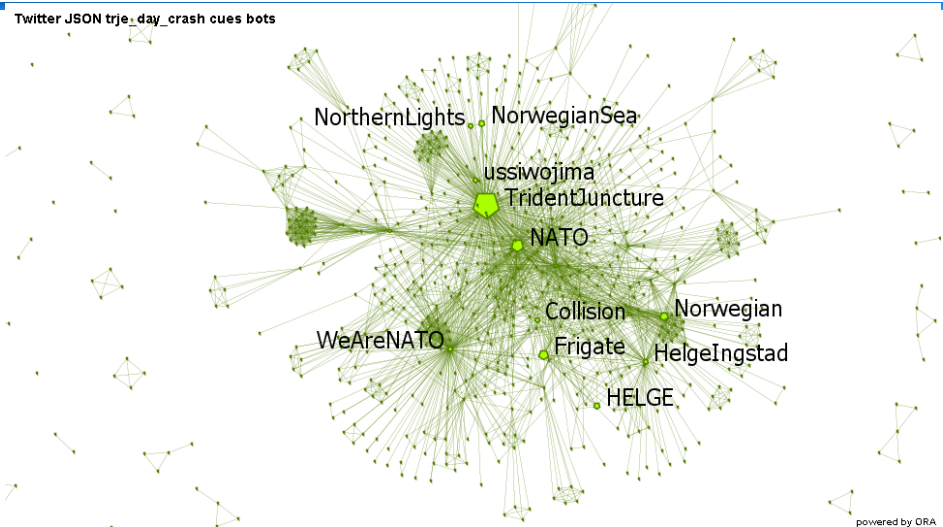


## Twitter Interaction Network, Image Created in ORA - bots are red, others green

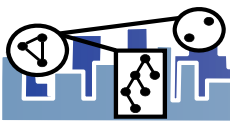


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## Co-hashtag network: ORA Image



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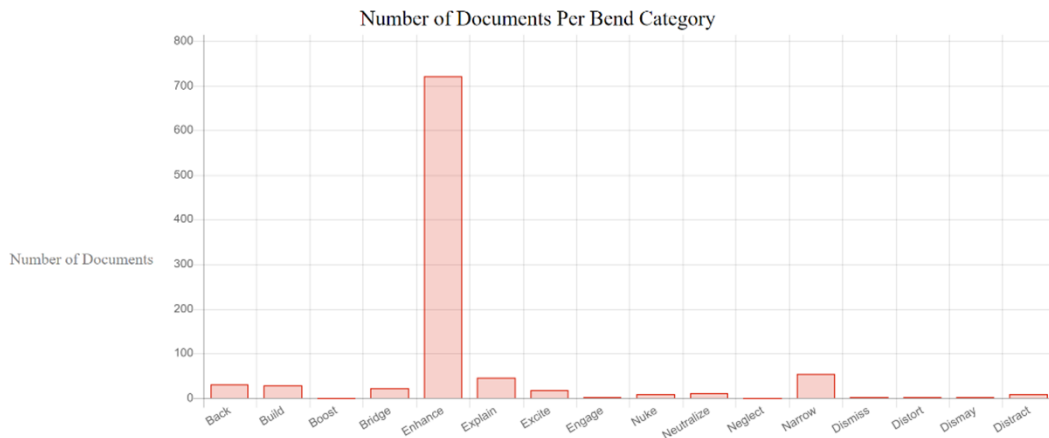


## Illustrative Communities from BEND report

Community	Agent Count	E/I Index	Echo Chamberness	Hashtag Count	Reciprocity	Specialty Concepts	Total Size	Tweet Count
1	73	0.896	0	23	0	TRJE18, Trident, Foto, Tramontana, 週刊安全保障	318	222
2	53	0.863	0	14	0	F16, Solas, Norwegen, RoyalNorwegianNavy, HELGE	203	136
3	52	0.686	0.105	55	0.033	FortTrump, ICYMI, nfiu, Today, ПрямоИзНАТО	316	209
10	16	0.911	0	9	0	WW3, RussianAggression, US, Russia, TridentJuncture2018	54	29
11	15	0.725	0	12	0	OilTanker, naval, Navy, USNavy, OTAN	83	56
12	11	0.756	0	11	0	CMANOITALIA, Roby7979, ComingSoon, NewScenario, FISE	50	28
14	9	0.913	0	9	0	Valencia, ISTAR, influencer, defensa, OTAN	35	17
19	5	0.8	0	6	0	HELGE, Norwegian, Collision, Frigate, HelgeIngstad	26	15
26	4	0	0	4	0	esercitazione, Difesa, Russia, TridentJuncture	16	8

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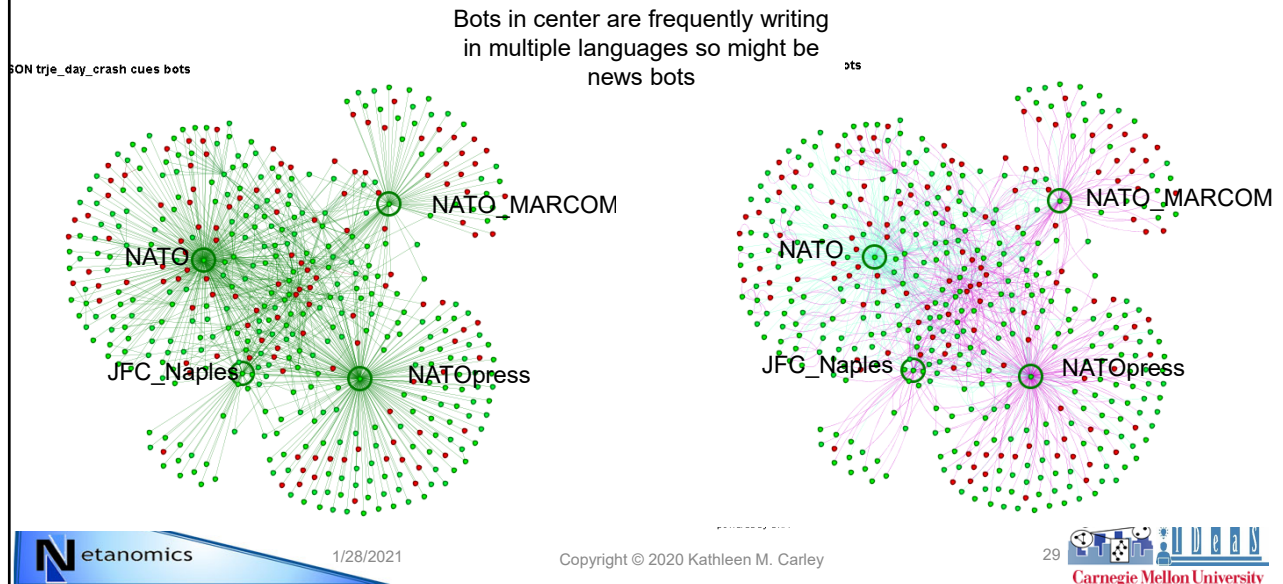
## Overall BEND Maneuvers







## NATO Key Actors Frequently Interacting with Bots (green real, red bot) on right retweets in pink and mentions in turquoise



## Summary

- Information operations can be assessed using the BEND framework
- BEND provides information on whether a message is potentially altering community or altering narrative
- Complex information operations employ multiple BEND maneuvers
- BEND maneuvers can be carried out by people, bots, trolls or cyborgs
- BEND maneuvers can be conducted using memes, images, or videos