

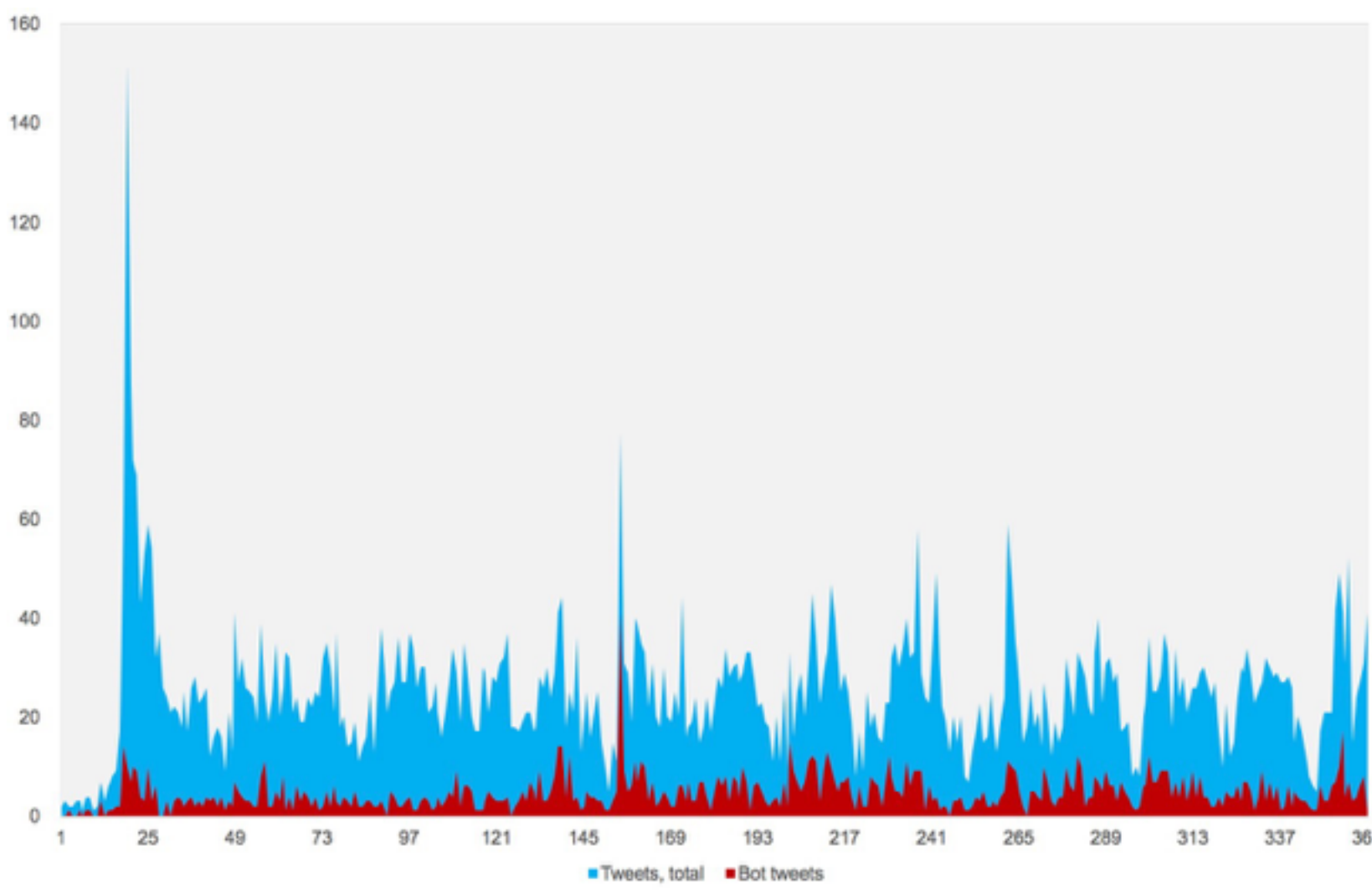
Influence of Bots on Public Sentiment: The Case of iPhone 7 Launch

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Abstract: On September 7, 2016 Apple unveiled iPhone 7. We intended to explore public sentiment dynamics as proxied by posts on Twitter. We found a significant presence of bots and adjusted our research to analyze their involvement.

Data:

- Researched only until customers received phones on Sep. 21, 2016
- Used a sample of 8,790 tweets from Crimson Hexagon (0.26% of total)
- BotOrNot showed 13% of users to be bots. This method is based on usage, time, network, sentiment, content, mentions, etc.



Findings:

Bots are more emotional!



Most positive bot
@exccelfilms2016: "Dear All please watch this video and SUBSCRIBE , SHARE, LIKE, and chance to win IPHONE 7. <https://t.co/KBGdweUa7O>"

Most negative bot
@Rhodennn: "when you want the new iphone 7 but you're a broke **** *****"

Most positive human
Shayaan Memon: "@UnboxTherapy I would really appreciate a iPhone 7 gold cause I never won so hope I win"

Most negative human
Chery @crbprincess: "Let's see how this iPhone 7 treats me if not. I'm switching. **** this ****."

Bot-makers may be trying to get more attention by using extremely positive or negative phrasing.

People participate in fake giveaways.

Methodology: Structural Topic Model

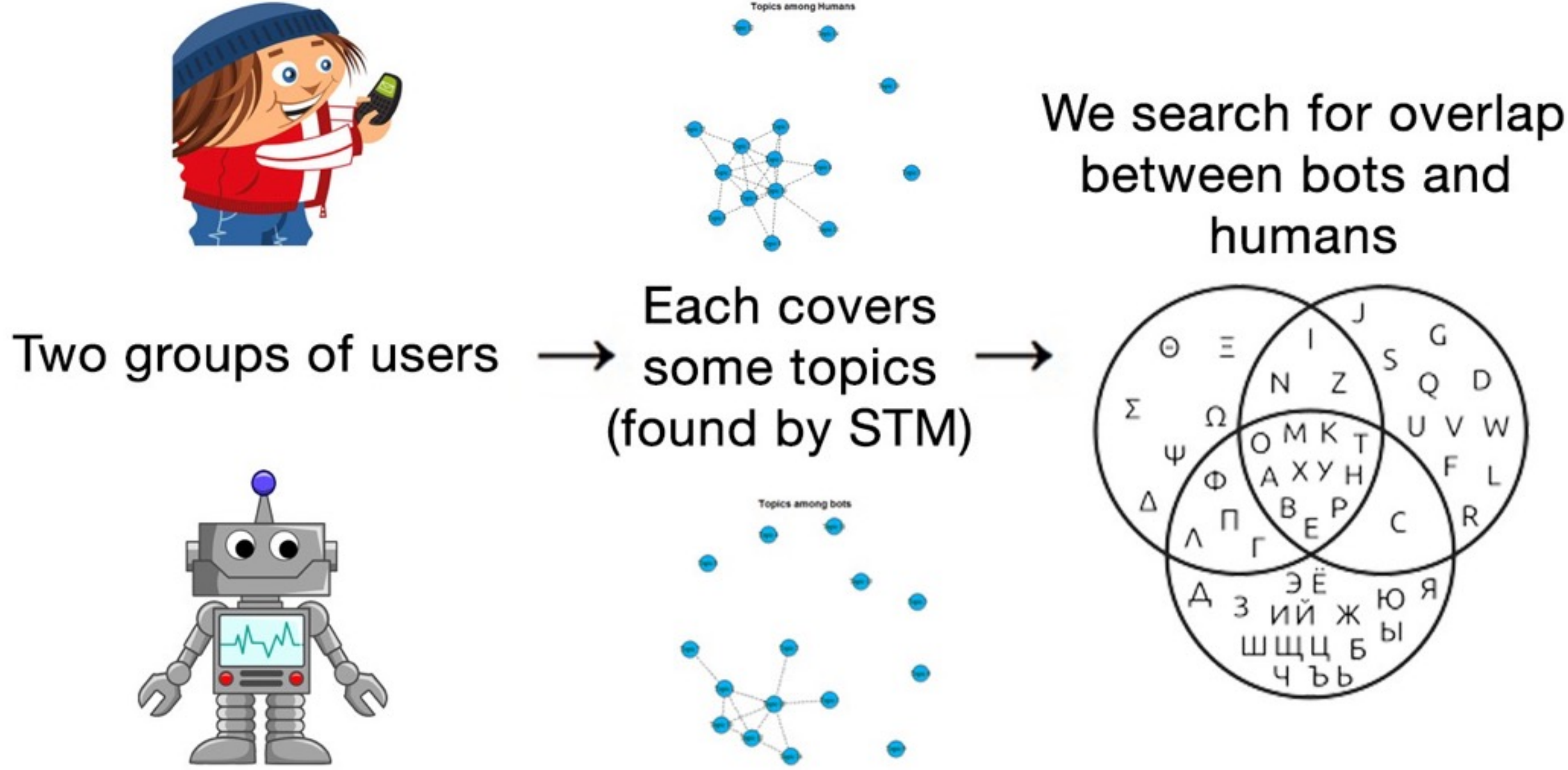
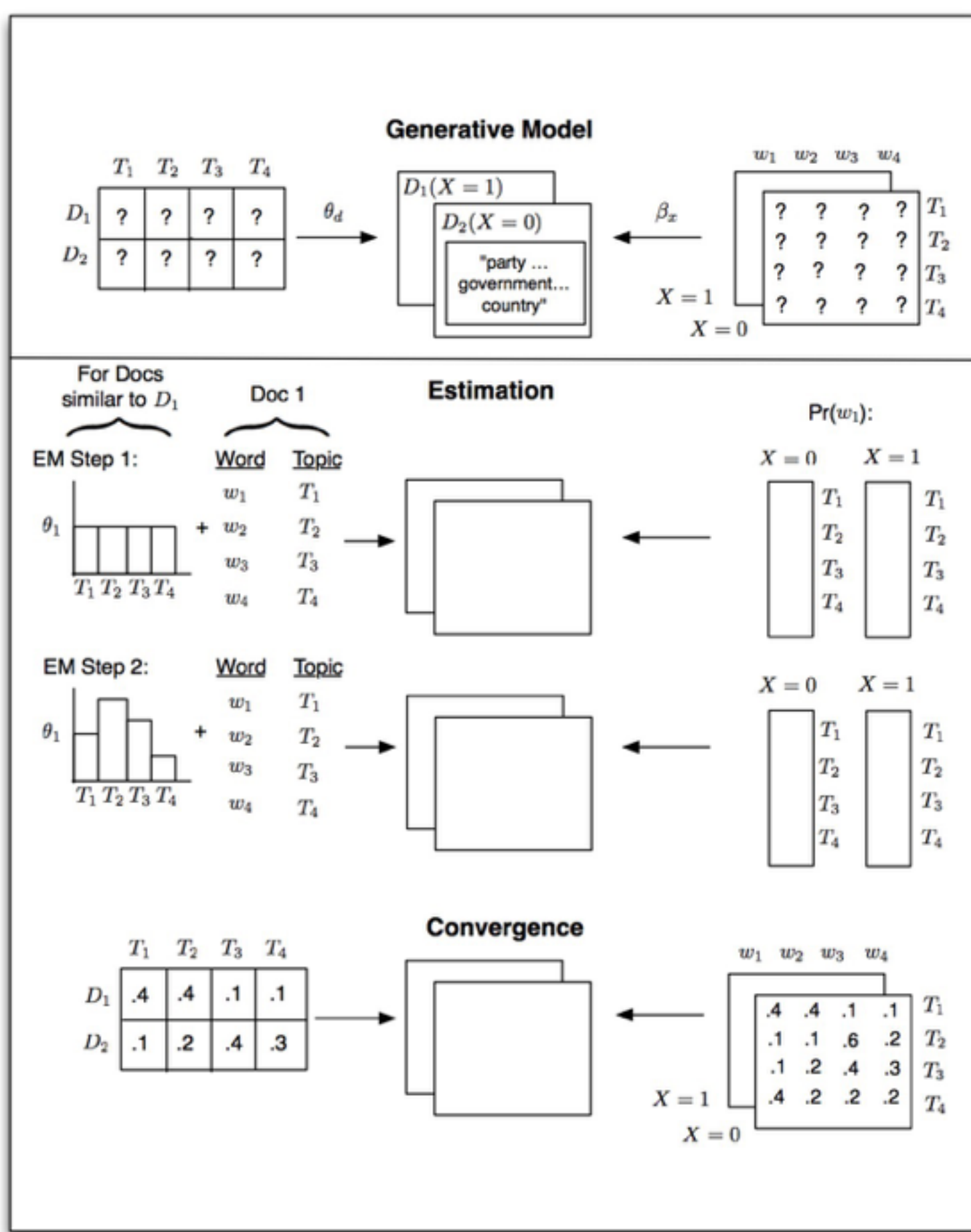
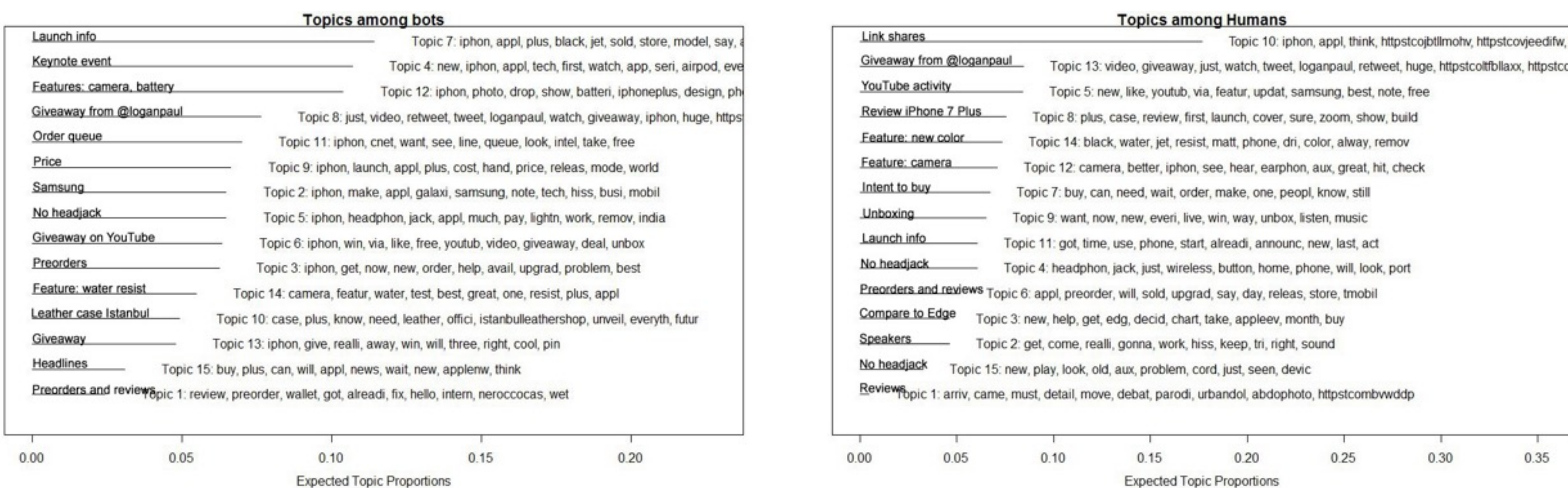


Figure 1: Heuristic description of generative process and estimation of the STM.



Some bot's topics are similar in content to human's topics.

BOT TOPICS	1b. Preorders and reviews	2b. Samsung	3b. Preorder	4b. Keynote event	5b. No headjack	6b. Giveaway on YouTube	7b. Launch info	8b. Giveaway @loganpaul	9b. Price	10b. Leather Istanbul	11b. Order queue	12b. Features: camera, battery	13b. Giveaway	14b. Feature: water resist	15b. Headlines
1h. Reviews	2%	0%	8%	0%	0%	13%	0%	1%	3%	2%	3%	3%	0%	0%	0%
2h. Speakers	5%	0%	0%	0%	0%	3%	0%	0%	8%	0%	9%	1%	1%	0%	0%
3h. Compare to Edge	1%	0%	1%	0%	0%	3%	0%	23%	1%	1%	0%	0%	5%	0%	0%
4h. No headjack	4%	0%	0%	0%	0%	8%	0%	5%	2%	2%	2%	11%	1%	0%	0%
5h. YouTube activity	1%	0%	0%	0%	0%	4%	0%	14%	0%	0%	1%	9%	0%	0%	0%
6h. Preorders and reviews	1%	0%	0%	0%	0%	4%	0%	14%	0%	0%	1%	0%	9%	0%	0%
7h. Intent to buy	2%	0%	0%	0%	7%	2%	0%	1%	0%	3%	3%	0%	7%	3%	0%
8h. Review iPhone 7 Plus	2%	0%	0%	0%	1%	5%	0%	8%	0%	0%	1%	4%	0%	0%	0%
9h. Unboxing	2%	0%	1%	0%	0%	5%	0%	11%	1%	2%	1%	11%	0%	0%	0%
10h. Link shares	3%	0%	0%	0%	0%	9%	0%	0%	0%	3%	0%	0%	0%	0%	0%
11h. Launch info	1%	0%	0%	0%	0%	3%	0%	21%	0%	1%	0%	12%	0%	0%	0%
12h. Feature: camera	1%	0%	0%	0%	0%	2%	0%	38%	0%	0%	0%	3%	0%	0%	0%
13h. Giveaway @loganpaul	0%	0%	0%	0%	0%	1%	0%	64%	0%	0%	0%	0%	3%	0%	0%
14h. Feature: new color	2%	0%	2%	0%	0%	5%	0%	7%	2%	2%	1%	7%	1%	0%	0%
15h. No headjack	1%	0%	5%	0%	1%	6%	0%	5%	1%	5%	1%	2%	10%	2%	0%