DelC Conference 2023, Kolding Jakob Bæk Kristensen, Postdoc, Roskilde Universitet

Large-scale network analysis of multiplatform content sharing on social media



Alterpublics

Alternative Media and Ideological Counterpublics

3 year project funded by the Carlsberg Foundation

PI: Eva Mayerhöffer

A comparative study of alternative news in four European countries: **Germany, Denmark, Sweden and Austria**



Alternative news media What is it?

Alternative news media as "a proclaimed and/or (self-) perceived corrective, opposing the overall tendency of public discourse emanating from what is perceived as the dominant mainstream media in a given system." (Holt et al. 2019)

Dark participation: Anti-system, anti-elite, anti-science, antidemocratic and anti-mainstream (Quandt, 2018; Kristensen et al., 2023)







PNEWS

Die ganze Wahrheit.

www.pi-news.net







From Alternative News to Alternative information environment - URL Sharing

https://katerinamagasin.se/extra-sa-islamiseras-sverige-genom-matjihad-halalmarkt-mat-smygs-in-till-konsume

https://friatider.se/okand-burundisk-serievaldtaktsman-slog-till-igen

Swedtraders (Twitter)

https://uvell.se/2019/06/30/ideellt-thunberg

Kjell L (Twitter)

https://newsvoice.se/2020/01/typfall-5-alternativa-medier-sekretess

https://bokus.com/bok/9789198488845/islamismen-i-sverige-muslimska-brodraskapet https://rights.no/2020/02/det-er-var-tur-til-a-kolonisere-dere-sier-kon-

Sverige först och främst (Facebook Group)

Det räcker nu !! Jag vill ha omval, NU !! (Facebook Group)

Sverigebilden (Facebook Page)

https://youtube.com/watch?v=NNV2tEgPb9I

Granskning SVT och SR (Facebook Group)

Jukka Järvinen (Vkontakte)

https://newsweek.com/hezbollah-cocaine-smuggle-united-states-obama-751928

https://fffi.se/2019/08/24/iranska-regimen-utnyttjar-afghaner-i-destruktiva-aktiviteter-video

Vi som står upp för Sverigedemokraterna (Facebook Group)

Stoppa Islamiseringen Av Sverige (Facebook Group)

Gina Stenmark (Vkontakte)

ProjektSanning (Facebook Group)

https://aftonbladet.se/nyheter/a/GGz7kg/mannen.com.hotar.polical

ontakte)

https://document.no/2021/04/01/svensk-skribent-tar-nadelost-oppgic

STOPPA MAKTMISSBRUKET (Facebook Group) Katerina Janouch - journalistik

Nyhetsgruppen (Facebook Group)

Mammor (och pappor samt alla andra me

Vår Åsikt På Riktigt (Facebook Page

https://news/voice.se/2020/01/typfall-5-alternativa-medier-sekretess

https://tokus.com/bok/9789198488845/islamismen-i-sverige-muslimska-br/

https://rights.no/2020/02/det-er-var-tur-til-a-kolonisere-dere-sier

Sverigebilden (Facebook Page)

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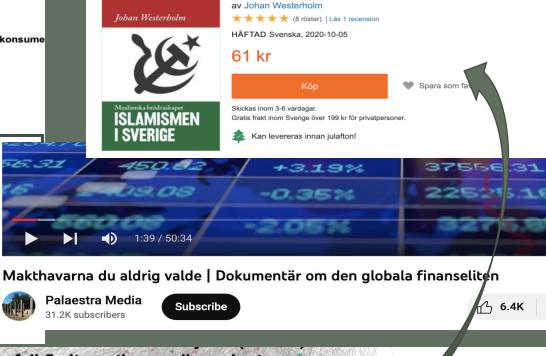
Granskning SVT och SR (Facebook Group)

Stå Upp För Katerina Janouch (Facebook Group)

□aterina Jan

Katerina Janouch (Gab)

Katerina Janouch (Facebook Page)



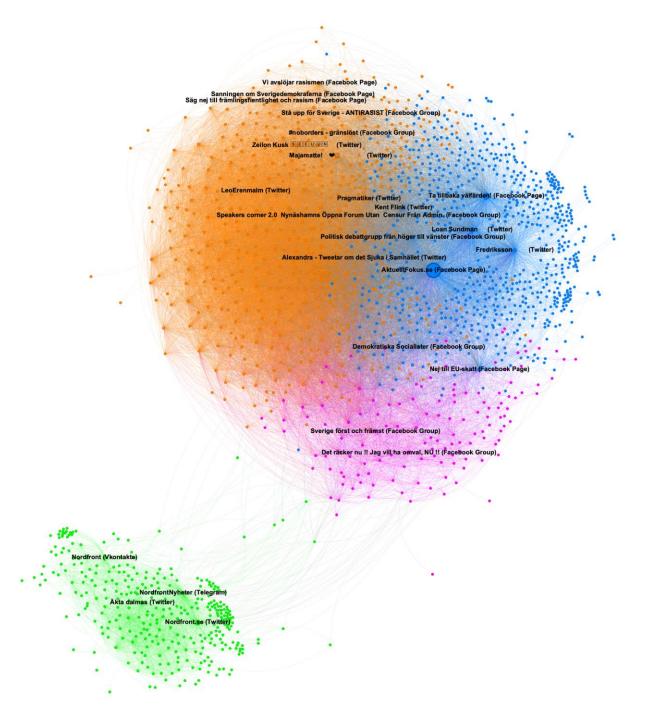
Sök bland 10 miljoner böcker

Erbjudanden Inspiration

Jul på Bokus! Hitta julklappar till hela familjen >>

Islamismen i Sverige: Muslimska Brödraskapet

Barn & tonår

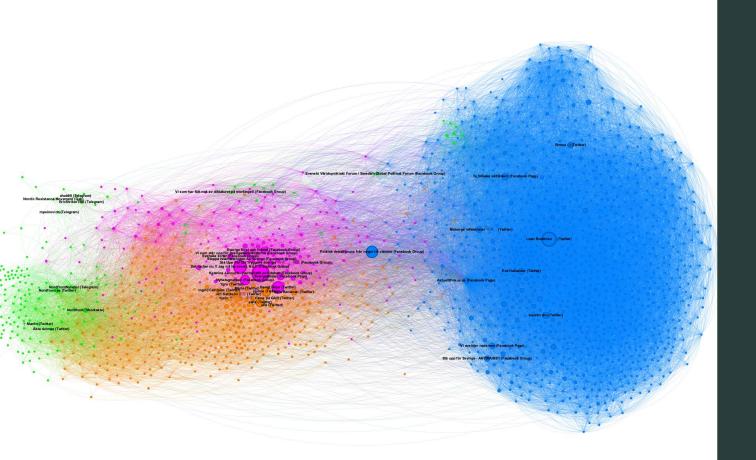


Seed list actors + First degree of separation

Node Color = Cluster detection (Louvain)

Node size = Yeo-johnson regression transformation of engagement metrics (Engagement) -> Min-max normalization (normEngagement) ->

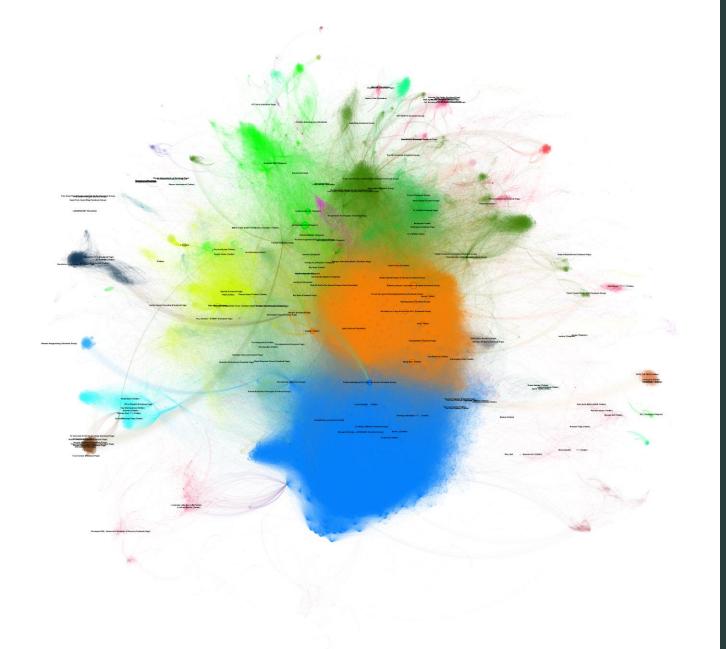
normEngagement * Pagerank



Seed list actors + First degree of separation + Urls

Node Color = Cluster detection (Louvain)

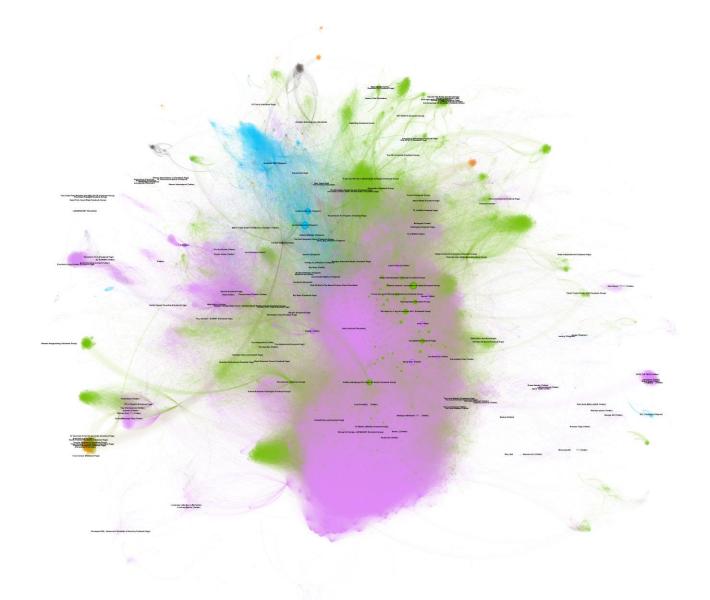
Node size = normEngagement * Pagerank



Seed list actors +
First degree of
separation + Second
degree of separation

Node Color = Cluster detection (Louvain)

Node size = normEngagement * Pagerank



Seed list actors +
First degree of
separation + Second
degree of separation

twitter	(59,24 %)
facebook	(30,19 %)
telegram	(7,05 %)
vkontakte	(1,42 %)
fourchan	(1,08 %)
gab	(0,69 %)
reddit	(0,12 %)
instagram	(0,11 %)
youtube	(0,1 %)

Data Collected

919.566.085 posts from various social media platforms

Youtube : 16.155.425,

Reddit : 691.926,



Gab: 19.987.949,



4chan : 4.950.273,



Vkontakte : 17.261.365,



Telegram : 489.793.594,



Twitter : 150.092.375,



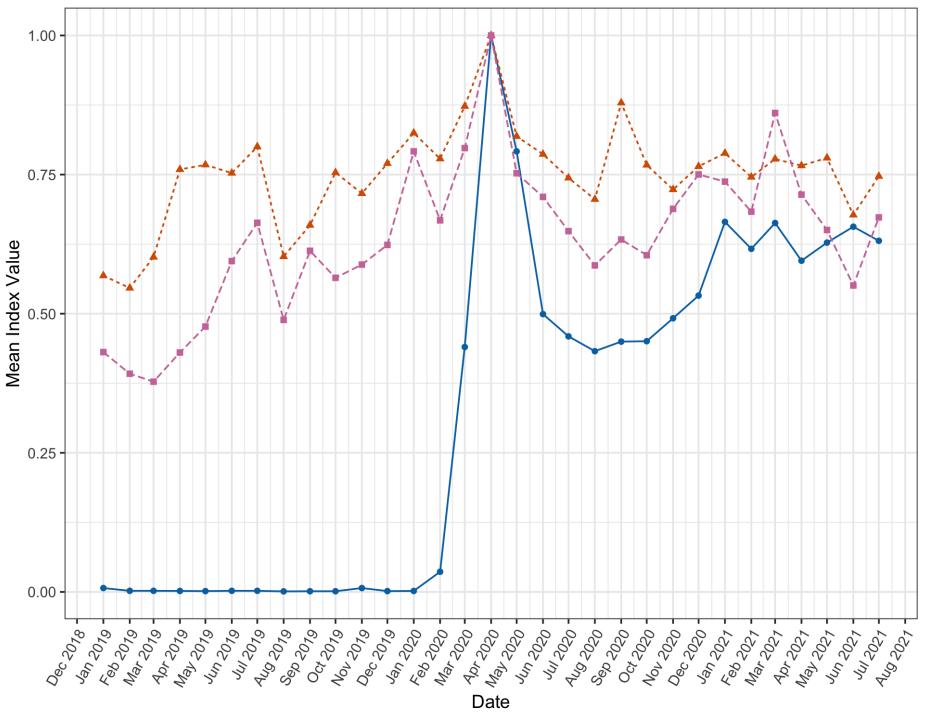
Facebook : 197.789.108,



Instagram : 2.243.484







Did COVID-19 Blur Partisan
Boundaries? A Comparison of
Partisan Affinity and Source
Heterophily in Online Alternative
News-Sharing Networks Before and
During the COVID-19 Pandemic

Kristensen, Henriksen & Mayerhöffer, 2023, Social Media and Society

Metric

- Covid-19 Content
- ← · Neighbourhood Diversity (BI)
- -- Neighbourhood Diversity (TRI)

Result: Surge in Partisan Source Heterophily at the Height of the Crisis

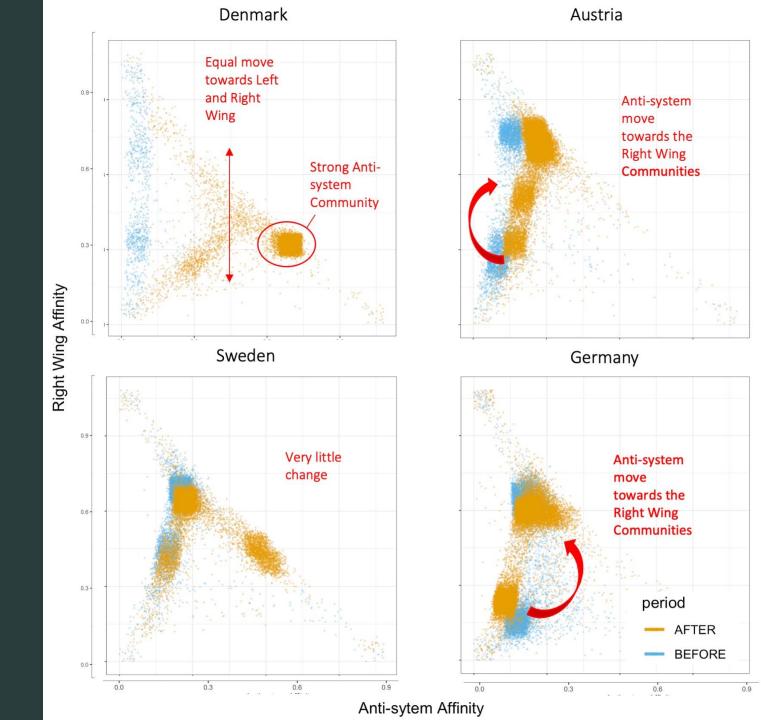
In times of immediate crisis, information becomes less politicised.

Before and After the Outbreak of Covid-19

Movement of Partisan Communities

Austria and **Germany** see a merging between **right wing and anti-sytem** communities

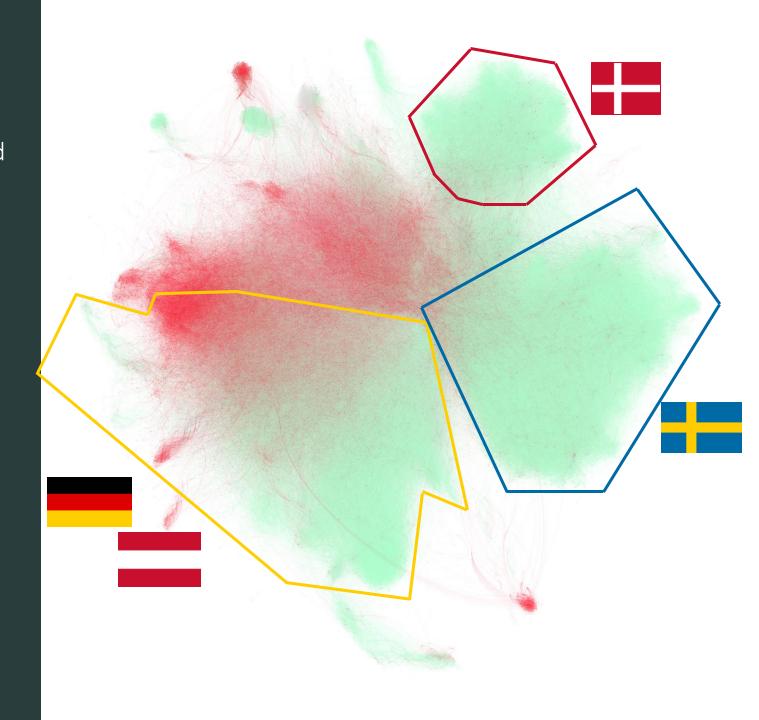
Denmark sees an **increase in anti-system** communities with
an equally distributed
connection to left and right wing
communities



RT/Sputnik

Dissemination of Russian-Backed Content in Alternative News Environments

Henriksen et al., Forthcoming, International Press Politics (major revisions)



RT/Sputnik

Platform	German Speaking	Swedish & Danish Speaking	
facebook	4 (n=5,465)	2 (n=3,310)	
gab	101 (n=47)	(n=11)	
reddit	2 (n=91)	1 (n=69)	
telegram	76 (n=2,631)	2 (n=13)	
twitter	9 (n=13,828)	2 (n=12,407)	
vkontakte	41 (n=1,521)	2 (n=75)	
youtube	2 (n=219)	2 (n=24)	

German Right wing on Telegram, Gab and Vkontakte

	Left Wing	Right Wing
Danish	1	2
Speaking	(n=1,466)	(n=1,406)
German	2	25
Speaking	(n=13,260)	(n=22,291)
Swedish	3	2
Speaking	(n=2,940)	(n=8,718)



TOP 20 TOPICS*		DANISH			SWEDISH	[G	SERMAN		ALL PO	OSTS
	n	Pct.	Cf.** Global	n	Pct.	Cf. Global	n	Pct_	Cf.	n	Pct.
1 COVID-19: POLITICS & VACCINES	405	15.5%	-	500	14.2%	-	110,283	46.1%	++	806,814	17.7%
2 RUSSIAN-UKRAINE WAR & CONFLICT	185	7.1%	+	680	19.3%	++	22,233	9.3%	+	222,569	4.9%
3 PROTESTS, RIOTS & CONFLICTS	166	6.3%	~	235	6.7%		20,386	8.5%	~	362,481	7.9%
4 WIKILEAKS & WESTERN HYPOCRISY	211	8.1%	~	250	7.1%	~	16,966	7.1%	~	388,017	8.5%
5 ENERGY POLITICS	56	2.1%	~	163	4.6%	+	6,603	2.8%	~	116,355	2.5%
6 IMMIGRATION & ISLAMOPHOBIA	67	2.6%	~	188	5.3%	+	6,023	2.5%	~	101,737	2.2%
7 MIDDLE EAST POLITICS	132	5.0%	~	75	2.1%	-	5,735	2.4%	-	303,836	6.7%
8 POLITICS & ELECTIONS, BROAD	42	1.6%	~	79	2.2%	~	5,762	2.4%	~	85,466	1.9%
9 GLOBAL TRADE & TECH COMPANIES	31	1.2%	~	17	0.5%	~	5,089	2.1%	~	86,245	1.9%
10 CHINESE POLITICS & CHINESE- RUSSO RELATIONS	28	1.1%	~	63	1.8%	~	3,647	1.5%	~	82,117	1.8%
11 WESTERN POLITICAL & MILITARY OPERATIONS ABROAD	186	7.1%	+	89	2.5%	~	3,468	1.4%	~	142,927	3.1%
12 <u>CENSORSHIP</u>	64	2.4%	~	39	1.1%	~	3,132	1.3%	~	76,455	1.7%
13 <u>TERRORISM</u>	106	4.0%	+	77	2.2%	~	2,930	1.2%	~	77,856	1.7%
14 AFGHANISTAN	76	2.9%	+	44	1.2%	~	2,827	1.2%	~	35,460	0.8%
15 RANDOM	66	2.5%	~	91	2.6%	-	2,590	1.1%	-	199,301	4.4%
16 SEXUAL ASSAULTS & ANTI-LGBTQ	16	0.6%	~	38	1.1%	~	2,783	1.2%	~	49,102	1.1%
17 CRIME AND LAW	24	0.9%	-	23	0.7%	-	2,597	1.1%	-	138,073	3.0%
18 US POLITICS & CONFLICTS	112	4.3%	~	134	3.8%	~	2,178	0.9%	~	119,074	2.6%
19 ACCIDENTS & NATURAL DISASTERS	34	1.3%	~	19	0.5%	~	1,399	0.6%	~	83,264	1.8%
20 VENEZUELA	104	4.0%	~	65	1.8%	-	1,283	0.5%	-	177,439	3.9%
REMAINING TOPICS	507	19.4%		655	18.6%		11,459	4.8%		912,383	20.0%
GRAND TOTAL	2,618	100.0%		3,524	100.0%		239,373	100.0%		4,566,971	100.0%

Curators of Digital Counterpublics: Mapping Alternative News Environments in Sweden and Denmark

Mayerhöffer et al., 2023, Nordicom Review

Posts containing alternative news content

	Intermediary	Alternative news			
		outlet (SoMe)			
facebook	34.82%	11.04%			
fourchan	0.02%				
gab	0.14%				
reddit	0.25%				
telegram	1.84%	0.32%			
twitter	44.60%	5.17%			
vkontakte	1.34%	0.34%			
youtube	0.05%	0.07%			
Grand Total	<u>83.07%</u>	16.93%			

Engagement with alternative news content

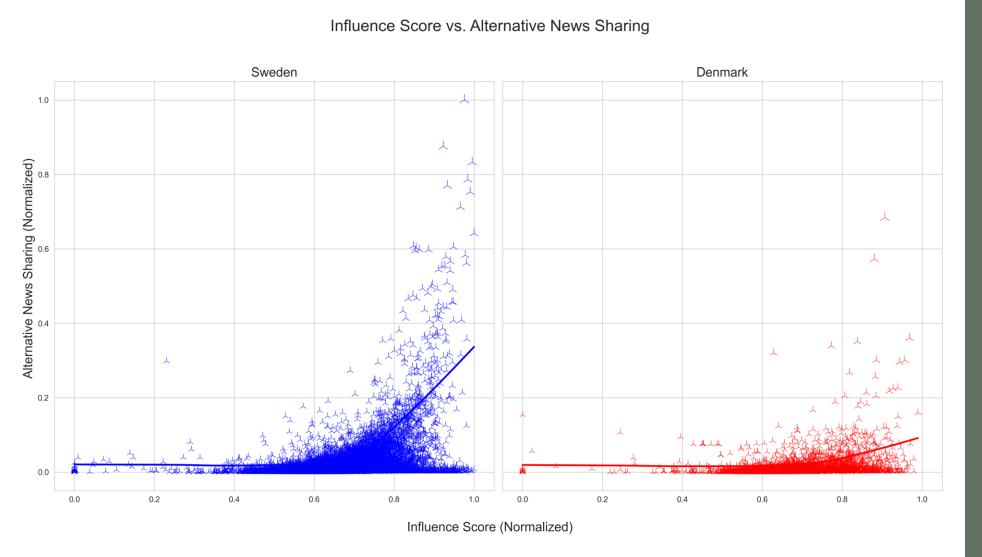
	Intermediary	Alternative news		
		outlet (SoMe)		
facebook	40.59%	0.60%		
fourchan	0.51%			
gab	0.32%			
reddit	1.28%			
telegram	10.38%	0.01%		
twitter	42.87%	0.40%		
vkontakte	2.88%	0.03%		
youtube	0.08%	0.05%		
Grand Total	<u>98.91%</u>	1.09%		

Audiences of alternative news are dependent on curators



Curators of Digital Counterpublics: Mapping Alternative News Environments in Sweden and Denmark

Mayerhöffer et al., 2023, Nordicom Review



In **Sweden** the sharing of alternative news content plays a **greater role** in fostering digital counterpublics compared to Denmark



Why do we need HPC resources?

Posts from social media platforms: 919 million

Unique URL-post combinations: 379 million

Social media actors with more than one post: 2.5 million

Network of mutual URL-sharing with all actors:

~6 billion edges



Why do we need HPC resources?

Data Processing

Posts from social media platforms: 919 million

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Network of mutual URL-sharing with all actors:

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