

PA Vaccine Conversations and Misinformation on Twitter

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Vaccine Hesitancy Project Update based on October 15 – October 21, 2021

The CMU centers for:

Informed DEMocracy And Social cyber-security

Computational Analysis of Social and Organizational Systems



Carnegie Mellon University



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PA Vaccine Conversation Project

- ❑ This report is an effort to summarize social media conversations around COVID-19 issues in Pennsylvania, with a focus on vaccination. It contains an analysis of the general topics related to COVID-19 vaccination. This includes discussions related to COVID-19 regulations, mandates, masks, pro-and anti-vaccination campaigns, science messages, misinformation, disinformation, conspiracy theories, and vaccine hesitancy messages.
- ❑ The material contained in this report is a summary of social media content and does not represent a judgment or characterization of any individual.

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Report Overview October 15 – October 21

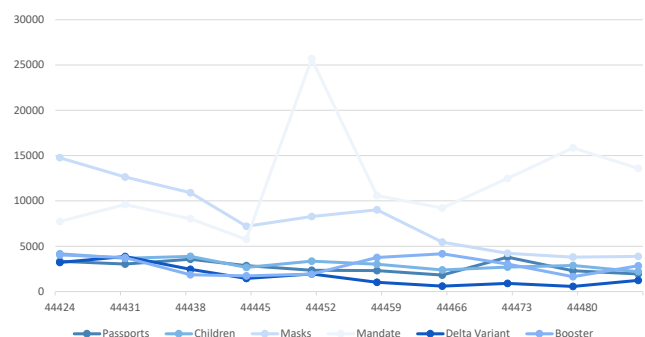
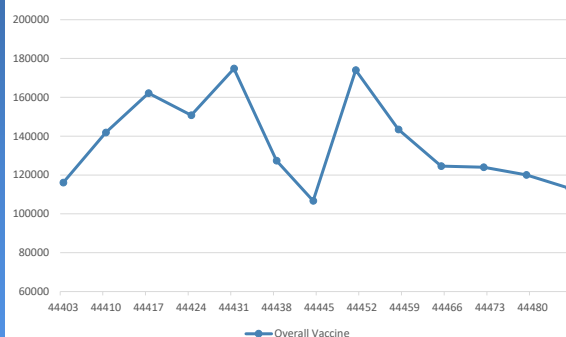
- ❑ This week's trending stories cover vaccination mandates, sports, boosters, military;
- ❑ Vaccination mandates and vaccine passports stories are the most popular: <https://cnb.cx/3jfZ8Xz> Walmart donated to Texas Gov. Greg Abbott as he fought Biden Covid vaccine mandate; <https://nbcnews.to/3ASvNIQ> Covid vaccine mandates fueling showdowns nationwide; <https://www.politico.eu/article/italy-anti-vaccine-protestors-against-covid-passport/> Vaccine rebels vow to paralyze Italy over incoming COVID passport; <https://www.foxnews.com/politics/california-parents-teachers-statewide-walkout-protest-school-vaccine-mandate> California parents, teachers plan statewide walkout to protest school vaccine mandate;
- ❑ "Fetal Tissue" conversation dropped precipitously from previous week;
- ❑ Collin Powell's death triggered discussion about multiple myeloma and vaccination (<https://nyti.ms/3AYhhPQ> Colin Powell, Who Shaped U.S. National Security, Dies at 84);
- ❑ Among other trending stories: <https://trib.al/7Nyy20T> Nets ban Kyrie Irving from team until he's vaccinated; <https://www.couriermail.com.au/news/national/dont-freak-out-catching-covid-after-you-are-vaccinated-improves-immunity/news-story/a65e560935dc5f4a271e9bcb226478e> Don't freak out: vaxxed Aussies who catch Covid warned; <https://www.foxnews.com/politics/navy-seals-coronavirus-vaccine-mandate-religious-exemption-intimidation-harassment> Navy SEALs seeking religious exemptions to vaccine mandate facing intimidation and harassment, sources say
- ❑ Disinformation stories this week: https://aaron.siri.substack.com/p/whistleblower-fda-and-cdc-ignore-3e2?utm_campaign=post&utm_medium=web&utm_source= Whistleblower: FDA and CDC Ignore Damning Report that over 90% of a Hospital's Admissions were Vaccinated for Covid-19 and No One Was Reporting This to VAERS; <https://rumble.com/vnmizu-planet-lockdown-pfizer-former-chief-scientist-dr-michael-yeaton-gives-us-a.html> PLANET LOCKDOWN - Pfizer Former Chief Scientist Dr. Michael Yeaton Gives Us A Final Warning; <https://youtu.be/ZJZxiNxYLpc> Mass Vaccination in a Pandemic - Benefits versus Risks: Interview with Geert Vanden Bossche; <https://www.thegatewaypundit.com/2021/10/nba-player-got-blood-clots-covid-vaccine-ends-season-nba-told-keep-quiet-video/?fbclid=IwAR3IIIGZc0-QCIII2CvxofLoLqm-7S9VqWnMyGx5q7jjoOcbX53J0LFVqWw> NBA Player Got Blood Clots From COVID Vaccine that Ends His Season - NBA Told Him to Keep It Quiet;
- ❑ Saskatchewan Health Authority pro-vaccination campaign from Canada was trending on Twitter with hashtag #sask.

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Trends (tweets per week) October 15 – October 21



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High Level View by City October 15 – October 21

	Total PA	Philadelphia		Pittsburgh		Erie		Allentown/Bethlehem		Other	
Conversation	Tweets	Tweets	%	Tweets	%	Tweets	%	Tweets	%	Tweets	%
Overall Vaccine	93844	53308	56.8%	20114	21.4%	953	1.0%	16008	17.1%	3461	3.7%
Vaccine Passports	1938	1251	2.3%	333	1.7%	6	0.6%	317	2.0%	31	0.9%
FDA Approval	404	188	0.4%	98	0.5%	7	0.7%	97	0.6%	14	0.4%
Boosters	2834	1506	2.8%	589	2.9%	47	4.9%	522	3.3%	170	4.9%
Fetal Tissue	148	81	0.2%	33	0.2%			30	0.2%	4	0.1%
"Experimental"	322	166	0.3%	62	0.3%	4	0.4%	83	0.5%	7	0.2%
Children	1697	945	1.8%	317	1.6%	26	2.7%	339	2.1%	70	2.0%
Myocarditis	209	108	0.2%	51	0.3%	2	0.2%	39	0.2%	9	0.3%
Heart	781	443	0.8%	147	0.7%	7	0.7%	153	1.0%	31	0.9%
Masks	3824	2078	3.9%	733	3.6%	43	4.5%	676	4.2%	294	8.5%
Thrombosis/VITT	244	121	0.2%	47	0.2%	4	0.4%	63	0.4%	9	0.3%
Mandates	13534	6996	13.1%	2426	12.1%	171	17.9%	3406	21.3%	535	15.5%
Natural Immunity	1117	697	1.3%	232	1.2%	10	1.0%	159	1.0%	19	0.5%
Efficacy	480	238	0.4%	88	0.4%	7	0.7%	129	0.8%	18	0.5%
Spike Proteins	74	31	0.1%	20	0.1%	3	0.3%	19	0.1%	1	0.0%
Delta Variant	1514	687	1.3%	277	1.4%	26	2.7%	450	2.8%	74	2.1%
Race	2586	1358	2.5%	653	3.2%	26	2.7%	440	2.7%	109	3.1%
Ivermectin	297	142	0.3%	93	0.5%	5	0.5%	49	0.3%	8	0.2%
Military	761	384	0.7%	176	0.9%	8	0.8%	167	1.0%	26	0.8%
Breakthrough	498	317	0.6%	75	0.4%	2	0.2%	90	0.6%	14	0.4%

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Trending conversations:

- Boosters
- Delta variant
- Military
- Race

"Fetal Tissue" conversation dropped precipitously from previous week



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High Level View by County October 15 – October 21

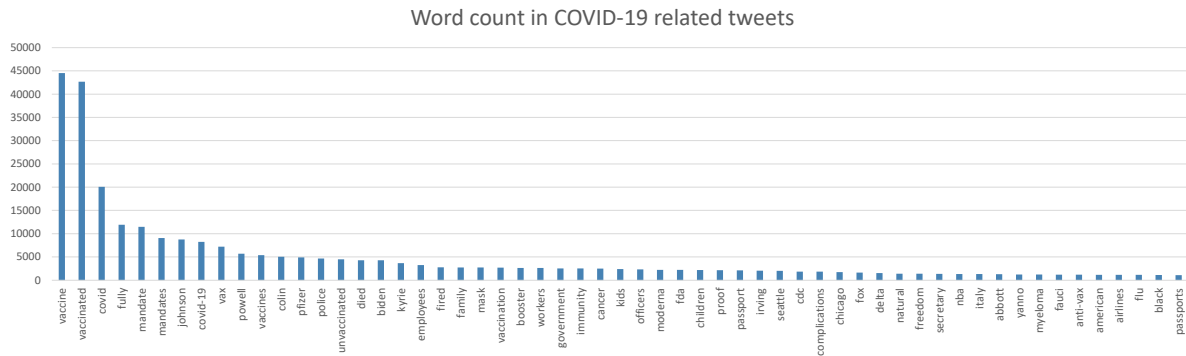
County	Allegheny	Beaver	Butler	Cambria	Fayette	Indiana	Somerset	Westmoreland
Overall Vaccine	20635	35	50	32	57	19	6	94
Vaccine Passports	338							
FDA	102							
Boosters	613		1	1	2	1	1	9
Fetal Tissue	33							
"Experimental"	63							
Children	327		2	1		1		
Myocarditis	52							
Heart	156		1	1				1
Masks	764	1	5	6	4	3		11
Thrombosis/VITT	47							
Mandates	2503	5	8	1	19	2	1	14
Natural Immunity	232	1	1	1				
Efficacy	91					2		
Spike Proteins	20							
Delta Variant	282				3			2
Race	669	2	2		3			2
Ivermectin	94							1
Military	179				3			1
Breakthrough	78		1					

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Top Words Used per Week October 15 – October 21



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Top Hashtags by County October 15 – October 21

- ❑ We've checked hashtags in several counties such as Allegheny, Beaver, Butler, Cambria, Fayette, Indiana, Somerset, and West Moreland. After removing hashtags that were part of our search criteria, the top 5 hashtags for each county related to COVID19/vaccines are as follows*:

Allegheny	Beaver + Butler	Cambria	Fayette	West Moreland
covid19 (422)	covid19 (2)	covid19 (4)	donotcomply (1)	booster (1)
steelers (149)	covidvaxexposed (1)	vaccine (2)	freedomflu (1)	covid19 (1)
freedomflu (91)	freeaustralia (1)	getvaccinatednow (1)	hiddeninterests (1)	moderna (1)
vaccine (91)	vaccinemandate (1)	mandateswork (1)	projectveritas (1)	nbaontnt (1)
getvaccinated (61)	covid19aus (1)	covid19 (4)	vaccinemandate (1)	pfitzer (1)

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Top Hashtags by City October 15 – October 21

- ❑ After removing hashtags that were part of our search criteria, the top 5 hashtags for each region related to COVID19/vaccines are as follows:

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
covid19 (735)	covid19 (143)	covid19 (198)	covid19 (418)	demvoice1 (22)	covid19 (268)	covid19 (54)
vaxupphilly (282)	sask (52)	colinpowell (48)	steelers (143)	covid19 (17)	freedomflu (69)	covidvaccine (30)
sask (176)	freedomflu (30)	getvaccinated (46)	vaccine (91)	covid (8)	sask (53)	getvaccinated (15)
getvaccinated (162)	ad (24)	multiplemyeloma (39)	freedomflu (84)	vaccinated (5)	vaccine (49)	eagles (14)
eagles (159)	epidemiology (23)	nbaontnt (37)	covid19aus (78)	fuckjoe Biden (4)	covid19aus (48)	freedomflu (12)

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Top URLs by County October 15 – October 21

Allegheny	Butler + Beaver	Cambria	Fayette	West Moreland
https://www.couriermail.com.au/news/national/dont-freak-out-catching-covid-after-you-are-vaccinated-improves-immunity/news-story/a65e560935dc5f4a271e9bca226478e Don't freak out: vaxxed Aussies who catch Covid warned (78)	http://apne.ws/DrMISU List of federal vaccine mandate exemptions is inaccurate (1)	https://www.desiringgod.org/articles/a-reason-to-be-vaccinated-freedom A Reason to Be Vaccinated: Freedom (2)	https://cnb.cx/3jFZ8Xz Walmart donated to Texas Gov. Greg Abbott as he fought Biden Covid vaccine mandate (1)	https://www.cnn.com/2021/10/19/walmart-donated-to-texas-gov-greg-abbott-as-he-fought-biden-vaccine-mandate.html Walmart donated to Texas Gov. Greg Abbott as he fought Biden Covid vaccine mandate (5)
https://thepostmillennial.com/watch-lori-lightfoot-cops-oppose-vaccine-mandates-spreading-misinformation-induce-insurrection/?utm_campaign=64483 WATCH: Lori Lightfoot says cops who oppose vaccine mandates are spreading 'misinformation' to 'induce an insurrection' (70)	https://babyonheer.com/news/southwest-airlines-offering-free-flights-to-all-passengers-who-are-vaccinated-and-can-fly-a-plane Southwest Airlines Offering Free Flights To All Passengers Who Are Vaccinated And Can Fly A Plane (1)	https://youtu.be/IAkygRBk9vA get the (*k'n jab (2)	https://hannity.com/media-room/de-blasio-to-city-workers-were-not-going-to-pay-people-unless-theyre-vaccinated DE BLASIO TO CITY WORKERS: 'We're Not Going to Pay People Unless They're Vaccinated' (1)	https://www.theblaze.com/oped/horowitz-dr-mccullough-testifies-in-court-that-cms-data-potentially-signal-much-higher-vaccine-death-toll Horowitz: Dr. McCullough testifies in court that CMS data potentially signal much higher vaccine death toll (1)
https://www.wsj.com/articles/federal-judges-brokers-traded-stocks-of-litigants-during-cases-walmart-pfizer-11634306192 Federal Judges or Their Brokers Traded Stocks of Litigants During Cases (62)	https://www.dailyveracity.com/2021/08/29/study-fully-vaccinated-are-27-times-more-likely-to-suffer-from-covid-than-those-unvaccinated-with-natural-immunity/ STUDY: Fully Vaccinated People are 27 Times More Likely to Suffer from COVID Than Those Unvaccinated With Natural Immunity (1)	https://nyti.ms/3AYhhPO Colin Powell, Who Shaped U.S. National Security, Dies at 84 (1)	https://n.pr/3FMR1LL Experts recommend that FDA should authorize Moderna COVID vaccine booster (1)	http://hill.cm/qHJKotd Nets suspend Kyrie Irving until he gets vaccinated (1)
https://nyti.ms/3AYhhPO Colin Powell, Who Shaped U.S. National Security, Dies at 84 (59)	https://www.dailyveracity.com/2021/09/21/government-doctors-blow-the-whistle-on-vaccine-deaths-being-covered-up/ Government Doctors Blow the Whistle on Vaccine Deaths Being Covered Up (1)	https://temple-news.com/students-furious-with-temple-decision-to-extend-vaccine-deadline/ Students furious with Temple's decision to extend vaccine deadline (1)	https://trib.al/LcmQSw FDA delays Moderna vaccine for teens until heart condition studied: report (1)	http://hill.cm/tlvBeAYb Fauci says Americans can enjoy holidays with family if fully vaccinated (1)
https://twitter.com/GovCanHealth/status/1450190235325935616 #CovidVaccine helps protect you from getting sick with the disease. (56)	https://rumble.com/vnzy9f-shocking-dr-carrie-madej-releases-first-look-at-pfizer-vial-contents.html SHOCKING: Dr. Carrie Madej Releases FIRST LOOK at Pfizer Vial Contents (1)	https://www.npr.org/sections/health-shots/2021/10/14/1043414558/with-hospitals-crowded-from-covid-1-in-5-american-families-delays-health-care With hospitals crowded from COVID, 1 in 5 American families delays health care (1)	https://wapo.st/3pcKDr7 Allison Williams to leave ESPN over coronavirus vaccine mandate: 'I cannot put a paycheck over principle' (1)	https://www.foxnews.com/us/desantis-threatens-lawsuit-biden-vaccine-mandate DeSantis threatens to sue Biden administration over vaccine mandate (1)

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Top URLs by City October 15 – October 21

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/ Bethlehem	Other
https://www.cnn.com/2021/10/19/walmart-donated-to-texas-gov-greg-abbott-as-he-fought-biden-vaccine-mandate.html Walmart donated to Texas Gov. Greg Abbott as he fought Biden Covid vaccine mandate (465)	https://www.politico.eu/article/italy-anti-vaccine-protesters-against-covid-passport/ Vaccine rebels vow to paralyze Italy over incoming COVID passport (469)	https://www.politico.eu/article/italy-anti-vaccine-protesters-against-covid-passport/ Vaccine rebels vow to paralyze Italy over incoming COVID passport (88)	https://www.couriermail.com.au/news/national/dont-freak-out-catching-covid-after-you-are-vaccinated-improve-immunity/news-story/a65e560935dc5f4a271e9bcha226478e Don't freak out: vaccinated Aussies who catch Covid warned (88)	https://nvtl.ms/3AYhhPO Colin Powell, Who Shaped U.S. National Security, Dies at 84 (7)	https://twitter.com/GovCanHealth/status/1450190235325935616 #CovidVaccine helps protect you from getting sick with the disease (53)	https://www.foxnews.com/politics/california-parents-teachers-statewide-walkout-protest-school-vaccine-mandate California parents, teachers plan statewide walkout to protest school vaccine mandate (18)
https://nbcnews.com/345nliq Covid vaccine mandates fueling showdowns nationwide (345)	https://twitter.com/GovCanHealth/status/1450190235325935616 #CovidVaccine helps protect you from getting sick with the disease (52)	https://trib.al/7Nyy20T Nets ban Kyrie Irving from team until he's vaccinated (61)	https://thepostmillennial.com/watch-lori-lightfoot-cops-oppose-vaccine-mandate-spreading-misinformation-induce-insurrection/?utm_campaign=64483 WATCH: Lori Lightfoot says cops who oppose vaccine mandates are spreading 'misinformation' to 'induce an insurrection' (61)	https://www.cbc.ca/news/canada/new-brunswick/most-deaths-are-unvaccinated-1.6212224 One in five N.B. COVID-19 deaths were people who were fully vaccinated (3)	https://www.couriermail.com.au/news/national/dont-freak-out-catching-covid-after-you-are-vaccinated-improves-immunity/news-story/a65e560935dc5f4a271e9bcha226478e Don't freak out: vaccinated Aussies who catch Covid warned (50)	https://nvtl.ms/3AYhhPO Colin Powell, Who Shaped U.S. National Security, Dies at 84 (11)
https://twitter.com/GovCanHealth/status/1450190235325935616 #CovidVaccine helps protect you from getting sick with the disease (176)	https://www.foxnews.com/politics/navy-seals-coronavirus-vaccine-mandate-religious-exemption-intimidation-harassment Navy SEALs seeking religious exemptions to vaccine mandate facing intimidation and harassment, sources say (52)	https://www.cnn.com/2021/10/16/us/police-vaccine-covid-deaths/index.html Five times as many police officers have died from Covid-19 as from gunfire since start of pandemic (26)	https://www.wsi.com/articles/federal-judges-brokers-traded-stocks-of-litigants-during-cases-walmart-pfizer-11634306192 Federal Judges or Their Brokers Traded Stocks of Litigants During Cases (26)	https://www.thegatewaypundit.com/2021/10/hidens-called-vaccine-mandate-jeopardizes-millions-jobs-doesnt-exist-mirage/?utm_source=Twitter&utm_medium=PostSideSharingButtons&utm_campaign=websitesharingbuttons BIDEN'S SO-CALLED VACCINE MANDATE That Jeopardizes Millions of Jobs Doesn't Exist... "It's All A Mirage" (3)	https://onathanturley.org/2021/10/18/did-kamala-harris-just-violate-federal-law-to-boast-terry-mcauliffe-in-virginia/ Did Kamala Harris Just Violate Federal Law To Boost Terry McAuliffe in Virginia? (30)	https://bit.ly/3e5twWJ Children's Health Defense (9)
https://rumble.com/vnmjzu-planet-lockdown-pfizer-former-chief-scientist-dr-michael-yeaodon-gives-us-a.html PLANET LOCKDOWN - Pfizer Former Chief Scientist Dr. Michael Yeaodon Gives Us A Final Warning (131)	https://aaronisri.substack.com/p/whistleblower-fda-and-cdc-ignore-3e2utm_campaign=post&utm_medium=social&utm_source=Whistleblower FDA and CDC Ignore Damning Report that over 90% of a Hospital's Admissions were Vaccinated for Covid-19 and No One Was Reporting This to VAERS (42)	https://trib.al/7Nyy20T Nets ban Kyrie Irving from team until he's vaccinated (24)	https://nvtl.ms/3AYhhPO Colin Powell, Who Shaped U.S. National Security, Dies at 84 (24)	https://youtu.be/7ZzNxyTpc Mass Vaccination in a Pandemic - Benefits versus Risks: Interview with Geert Vanden Bossche (3)	https://aaronisri.substack.com/p/whistleblower-fda-and-cdc-ignore-3e2utm_campaign=post&utm_medium=social&utm_source=Whistleblower FDA and CDC Ignore Damning Report that over 90% of a Hospital's Admissions were Vaccinated for Covid-19 and No One Was Reporting This to VAERS (29)	https://twitter.com/GovCanHealth/status/1450190235325935616 #CovidVaccine helps protect you from getting sick with the disease (8)
https://trib.al/7cmQSw FDA delays Moderna vaccine for teens until heart condition studied: report (110)	https://www.cnn.com/2021/10/19/walmart-donated-to-texas-gov-greg-abbott-as-he-fought-biden-vaccine-mandate.html Walmart donated to Texas Gov. Greg Abbott as he fought Biden Covid vaccine mandate (41)	https://twitter.com/GovCanHealth/status/1450190235325935616 #CovidVaccine helps protect you from getting sick with the disease (23)	https://twitter.com/GovCanHealth/status/1450190235325935616 #CovidVaccine helps protect you from getting sick with the disease (23)	http://bit.ly/Tyler4Erie History with Tyler Titus for Erie County Executive! (2)	https://abcn.ws/3vhyY2J J&J recipients should 'feel good' about booster recommendation: Fauci (27)	https://abcn.ws/3vhyY2J J&J recipients should 'feel good' about booster recommendation: Fauci (7)

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Top Influencers by County October 15 – October 21

❑ The top 5 influencers* for each region related to COVID19/vaccines are as follows:

Allegheny	Butler	Cambria	Fayette	West Moreland	Beaver	Indiana
KDKA	TaylorHaasePGH	PClelly	mommydog67	MartyGriffinKD	colin_dunlap	IUPSwimDive
RuthMarcus	gramsci33	realjasonstru (high bot score)	milan_scheckler	BombulieTrib	TribLiveHSSN	IUPfootball
MarkMaddenX	TheDanKingerski	CrispinHavener	irishpatriot386	missi_matthews	PghSportsNation	TLJHuntington
WTAE	M_jopink	dougkeklak	ShariseJMoore	PalacePA	Barbara37152749	SysterJeff
TheRightMelissa	datavortex	samknutson	BroncoBaby10 (high bot score)	Eliaok10 high bot score)	redpillwoke	IUPIceHockeyD3

*influencers are defined as accounts with tweets often spread by others (ordered by out-degree centrality)

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Top Influencers by City October 15 – October 21

□ The top 5 influencers* for each region related to COVID19/vaccines are as follows:

Philadelphia	Chester	Norristown	Pittsburgh	Erie	Allentown/Bethlehem	Other
catturd2	FOS	GovernorTomWolf	KDKA	LauraMiers	joegooding (high bot score)	POTUS
MichaelPSenger	drcraigwax (antivax)	USBornNRaised	RuthMarcus	ErieNewsNow	TimIsThaMan	disclosetv
CNN		TheRock	MarkMaddenX	DBChirpy (high bot score)	reopenpa	mikeapedia101 (high bot score)
TheAthletic	CureHipHop (high bot score)	JosephJFlynn1	WTAE	AHNtoday	RED_IN_PA_3	JanessaWaterson
ke11ybender	AmericaWatch1	TimOnPoint	TheRightMelissa	TylerJamesTitus	Flattielover	JackPosobiec

*influencers are defined as accounts with tweets often spread by others (ordered by out-degree centrality)

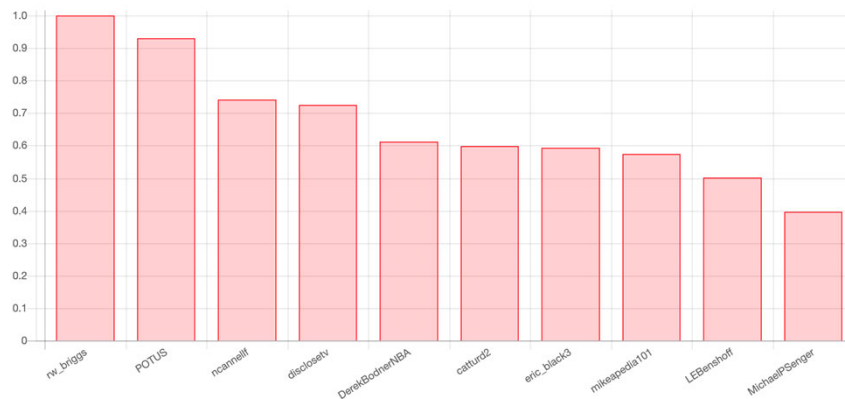
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Analysis of Tweeters - Super Spreaders

□ Super Spreaders are users which generate content that is shared often, and hence spread information effectively.



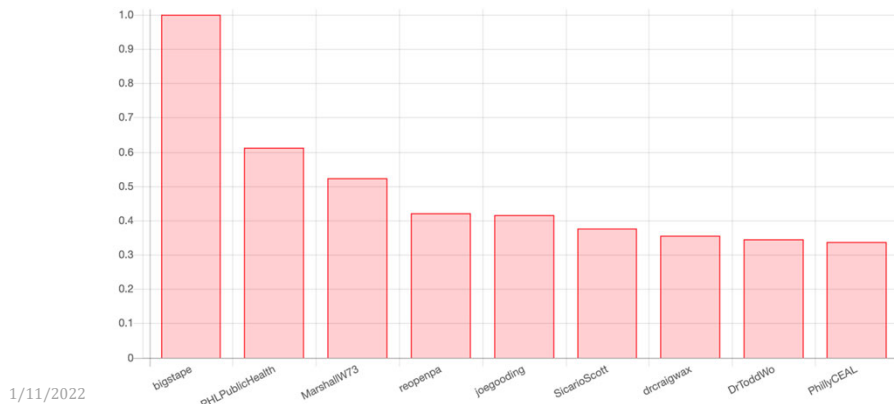
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Analysis of Tweeters - Super Friends

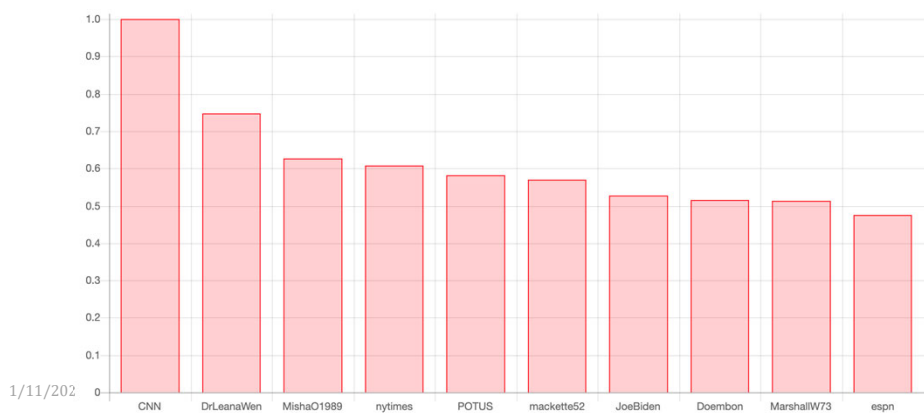
- ❑ Super Friends are users that exhibit frequent two-way communication, facilitating large or strong communication networks.



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Analysis of Tweeters - Other Influencers

- ❑ Other Influencers are users which have an active network presence, by tweeting often or mentioning users often, and operate in central parts of the conversation, such as by using important hashtags, or mentioning important users.



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Accounts Referenced by the Most Tweets

- This shows the tweeters that are most often referenced (e.g. mentioned) in PA tweets. Value is the number of tweets that reference the agent.

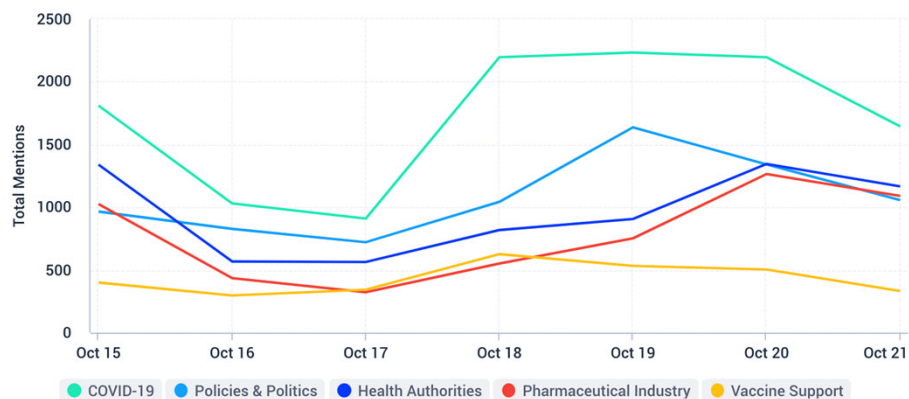
Agent Label	Value
POTUS	845
catturd2	692
joerogan	620
Walmart	579
ShamsCharania	546
JackPosobiec	541
DonaldTrump1r	532
KyrieIrrving	503
NBCNightlyNews	489
TerryMcAuliffe	446

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General PA Conversation October 15 – October 21

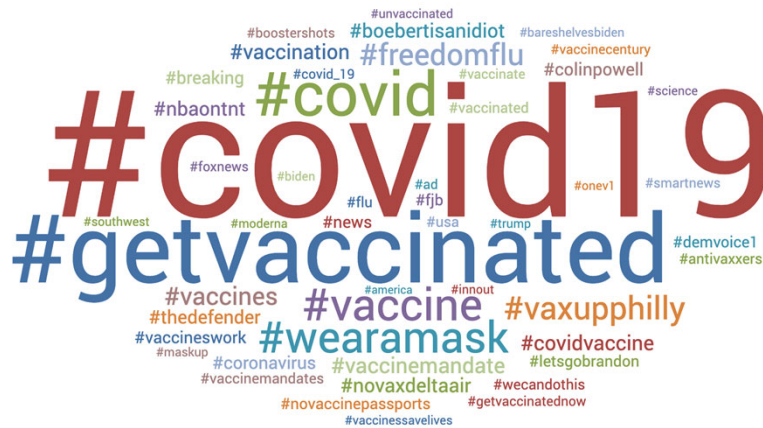


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PA Hashtag Cloud October 15 – October 21



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Trending PA links October 15 – October 21

- ❑ [nytimes.com](https://www.nytimes.com) - Opinion | The Unvaccinated May Not Be Who You Think (89 Mentions)
- ❑ [covid.cdc.gov](https://www.covid.cdc.gov) - COVID Data Tracker - (79 Mentions)
- ❑ [childrenshealthdefense.org](https://www.childrenshealthdefense.org) - Sign Up for our Free News and Updates! (74 Mentions)
- ❑ [osha.gov](https://www.osha.gov) - COVID-19 - Frequently Asked Questions | Occupational Safety and Health Administration (69 Mentions)
- ❑ [rt.com](https://www.rt.com) - US Treasury deputy sec warns unvaxxed Americans that shortages will continue until EVERYONE is jabbed — RT USA News (67 Mentions)
- ❑ [whyy.org](https://www.whyy.org) - Just 1 in 10 Philly cops report vaccine status; city says no to stricter mandate (66 Mentions)

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Trending PA tweets October 15 – October 21

Please 'retweet' this if you got your Covid vaccine as soon as you possibly could. Give me a reason to like people.

214
Retweets

Delta's CEO says they're ditching the vaxx mandate for employees... the first big company to DIRECTLY flout Biden's dictate?!!!! THIS IS WHAT I'M TALKING ABOUT.

132
Retweets

After listening to the news this morning 14 yr old says: "It's strange that people think that a vaccine that has helped millions of people will kill them but a virus that has killed millions of people won't."

193
Retweets

Yes, Colin Powell was vaccinated. But he also had blood cancer, which devastates the immune system. What his tragic death illustrates isn't the futility of vaccines but the importance of everyone else getting vaccinated to protect

132
Retweets

I called Ted Cruz's office asking to make an appointment to talk with the Senator about my blood pressure. They told me that the Senator was not qualified to give medical advice and that I should call my doctor. So I asked them to stop giving advice about vaccines. #covid

173
Retweets

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21

Trending PA tweets October 15 – October 21



Jason Rantz on KTTH Radio
@jasonrantz

"This is the last time you'll hear me in a patrol car and Jay Inslee can kiss my ass." Washington State Trooper in Yakima, Wash. signs off after 22 years — fired by @GovInslee for being unvaccinated. <https://t.co/RGLDs5BZxg>

124
Retweets

No vaccine is *that* good. <https://t.co/KAvJFCCKiY>

108
Retweets



Occupy Democrats
@occupydemocrats

BREAKING NEWS: In a massive loss for Governor Abbott, the Texas bill to block hospitals and businesses from implementing COVID vaccination mandates fails to pass in the Texas legislature. RT IF YOU THINK THAT THIS IS GREAT NEWS!

120
Retweets



TheSadTruth
@reportsdanews

West Virginia Ranks 1st in the nation in opioid use 1st in the nation in deaths per capita 2nd in poverty 2nd in obesity 45th in education 47 in vaccination And dead last in Infrastructure That's how @Sen_JoeManchin likes it.

108
Retweets

In-N-Out's response to being shut down by San Francisco: "We refuse to become the vaccination police for any government. We fiercely disagree with any government dictate that forces a private company to discriminate against customers who choose to patronize their business."

114
Retweets

1/11/2022



22

Top PA Twitter Authors October 15 – October 21

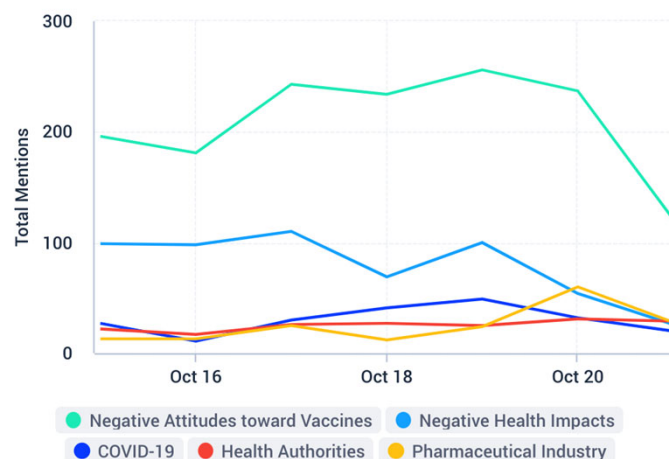
By mentions	By influence
@iridescentashes	@malcolmnance
@doembon	@6abc
@cdekeane	@fox29philly
@mishao1989	@accuweather
@erin_vmd	@nbcphiladelphia
@kirkturner777	@ericfisher
@chris_1791	@phillyinquirer
@gehaunna	@wpxi
@tweetypickler	@cbsphilly
@erickratz2	@kdka

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23

Negative Attitudes October 15 – October 21



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24

Trending Negative PA tweets October 15 – October 21

BIG NEWS: Days after Gov. Abbott in Texas says companies can't have a vaccine mandate, Dallas Mavericks owner Mark Cuban declares ALL HIS EMPLOYEES MUST GET THE COVID SHOT or there will be "consequences." RT if you appreciate @mcuban for defying Gov Abbott's ban.

97
Retweets

 **Robert F. Kennedy Jr**
@robertkennedyjr

NBA player Brandon Goodwin pulled out last season because of blood clots he says were caused by COVID vaccine. Goodwin said team officials called him and told him not to disclose his diagnosis. #TheDefender:
<https://t.co/zL66Edfiw5> <https://t.co/viaVwoJh9U>

24
Retweets

What's so messed up about this mandatory vaccine crap is that if you have a bad reaction/vaccine injury etc, there is NOBODY who can be held accountable. Basically, you can be told what to do with your body & if you are hurt by it, well - too bad for you. Objectively gross.

31
Retweets

 **Sharyl Attkisson**
@sharylattkisson

If health care workers, teachers, pilots/flight attendants quitting/getting fired over vaccine mandates started their own medical care, hospitals, schools, colleges, airlines.. would you sign up, use them, attend, fly?

20
Retweets

3  **Robert F. Kennedy Jr**
@robertkennedyjr

Yep! Vaccine makers Pfizer + Moderna are projected to generate combined sales of \$93.2 billion in 2022 nearly twice the amount they're expected to rake in this year. SIGN UP
#TheDefender: <https://t.co/zL66Edfiw5>
<https://t.co/X0ohMXtzfb>

25
Retweets

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*support for vaccines may appear in this section if the comments on that post were expressing criticism of that post.



27

Trending Negative PA tweets October 15 – October 21

I understand people who've gotten the vaccine to keep their jobs. I totally get it. It's different when it's your mortgage and your family on the line. But man, I respect this so much. Everyone choosing to walk instead of submitting to medical tyranny, just know I'm a fan.

18
Retweets

Until May, OSHA required employers with vaccine mandates to report COVID vaccine injuries as work related. Then OSHA suspiciously switched to a new policy of tacitly encouraging employers to sweep these injuries under the rug.
<https://t.co/oeoANjujXB> <https://t.co/ikXXOvuw0o>
<https://t.co/nHprHYsfrB>

16
Retweets

 **Sharyl Attkisson**
@sharylattkisson

So oddly and undeniably unscientific how so many people in media are urging people they've never treated, or even met, to "get the vaccine" and insulting them if they have concerns, questions, or their own doctors have told them to hold off.

16
Retweets

Proud of all these HEALTHY people for taking a stand against medical tyranny. Vaccination is a choice. @JoeBiden and Big Pharma are working with China to destroy America. Trust absolutely nothing that they want to mandate into your body.

16
Retweets

10  **The HighWire**
@highwiretalk

"I was fine up until I took the vaccine, I was fine. People trying to tell you, 'No. It's not the vaccine.' How do you know? You don't know. Yes, the vaccine ended my season. One thousand percent." <https://t.co/wINNCFGAVI>

15
Retweets

1/11/2022



28

Top PA Negative Twitter Authors October 15 – October 21

By mentions	By influence
@stahlzart	@nbcphiladelphia
@cdekeane	@chuckwendig
@mishao1989	@politicussarah
@joegooding	@fox43
@richrobby	@chris_1791
@doembon	@bigjoebastardi
@jwetzal70	@michaelcdeibert
@michaelpghpa	@joegooding
@amyberlin16	@4thanon
@christi06249366	@meidas_damon

*support for vaccines may appear in this section if the comments on that post were expressing criticism of that post.

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29

Trending Posts on Facebook October 15 – October 21

WPXI-TV Pittsburgh
Oct 18, 2021 at 8:06 AM

BREAKING: Former Secretary of State Colin Powell has died from COVID-19 complications.

Colin Powell dies from COVID-19 complications

WPXI.COM

1.4K 487 285

Pittsburgh Bureau of Police
Oct 21, 2021 at 8:08 PM

The Pittsburgh Bureau of Police announces the death of Sergeant Richard 'Rick' Howe. Sergeant Howe, 51, passed away on October 21, 2021 at St. Clair Hospital following complications from COVID-19. "I've known Rick for more than 20 years and had the pleasure of working with him at Zone 6 and at SDD. He also volunteered many times for various Special Olympics events. He was a good man, cop, father, and husband. He will be missed dearly," said Police Chief Scott Schubert. More here [pittsb.org/press-releases/press-release-s/5381](#)

See less

958 167 137

WTAE-TV Pittsburgh
Oct 19, 2021 at 8:31 PM

The Allegheny County Police Association is suing over the county's COVID-19 vaccine mandate.

Allegheny County Police Association files lawsuit over COVID-19 vaccine

WTAE.COM

811 178 49

WTAE-TV Pittsburgh
Oct 21, 2021 at 4:39 PM

JUST IN: Officials from Highmark Health said all employees must be fully vaccinated with one of the three approved COVID-19 vaccines unless they have a medical or religious exemption.

Highmark Health requiring all employees to be fully vaccinated by

WTAE.COM

622 373 51

WPXI-TV Pittsburgh
Oct 21, 2021 at 9:06 AM

West Virginia's Senate president compared the U.S. government's COVID-19 vaccine regulation for companies to Nazi Germany.

West Virginia lawmaker compares federal vaccine rule to Nazi Germany

WPXI.COM

1.0K 298 127

WPXI-TV Pittsburgh
Oct 20, 2021 at 9:10 AM

Southwest Airlines has changed its plan for workers who haven't gotten a COVID-19 vaccine.

Southwest Airlines reverses decision, will not put unvaccinated

WPXI.COM

1.2K 226 131

21 WFMJ
Oct 20, 2021 at 5:11 AM

"I'm putting my money where my mouth is and announcing that any venue or promoter mandating masks, requiring vaccinations, or pushing COVID testing protocols on my fans will not be tolerated," Tritt said in a written statement.

See less

Travis Tritt cancels shows at venues that require COVID-19

TENNESSEAN.COM

1.4K 349 103

WPXI-TV Pittsburgh
Oct 19, 2021 at 9:06 AM

Four of the Washington State University football coach's assistants were also fired for refusing to get the vaccine.

Nick Rolovich fired: Football coach refuses to get COVID-19 vaccine

WPXI.COM

719 473 42

WPXI-TV Pittsburgh
Oct 18, 2021 at 9:13 AM

She said she is "so morally and ethically not aligned" with the vaccine mandate.

ESPN reporter Allison Williams to exit network, cites COVID-19 mandate

WPXI.COM

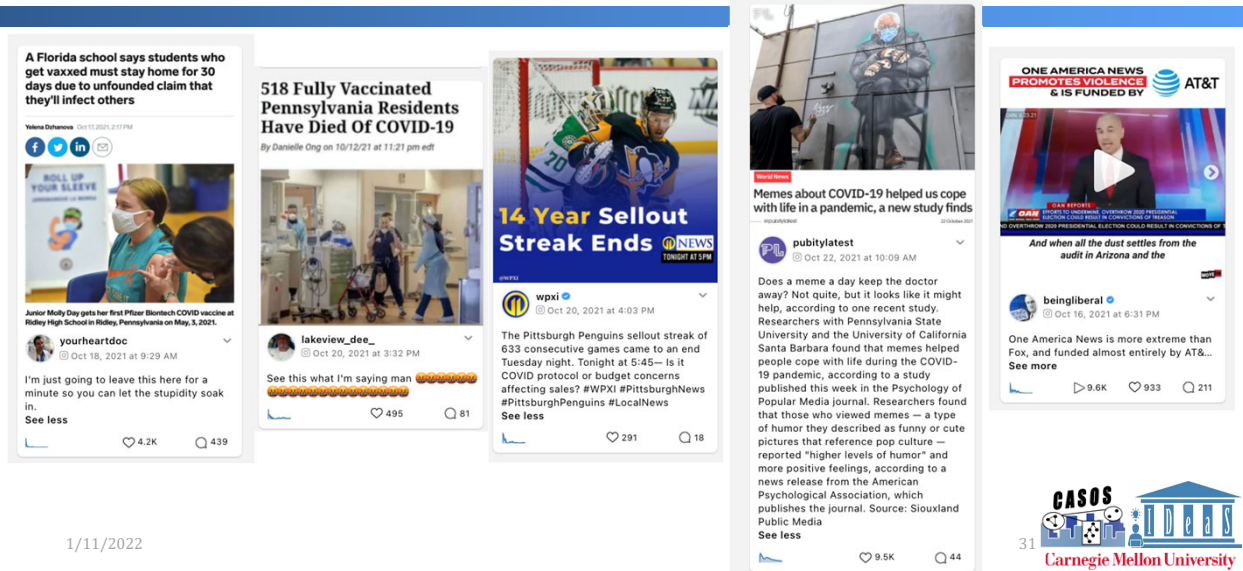
1.4K 687 51

1/11/2022



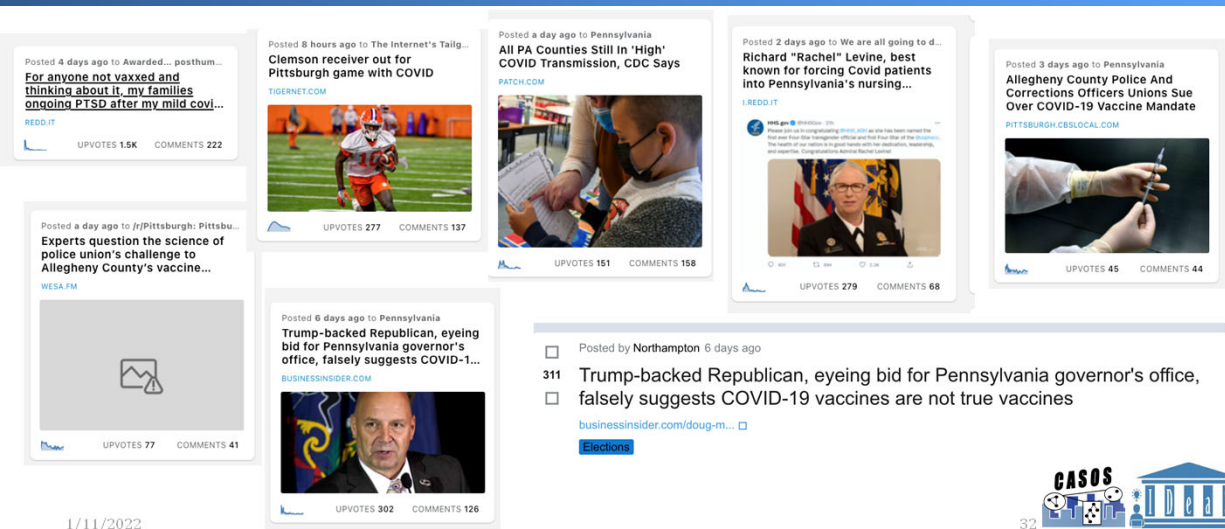
30

Trending Posts on Instagram October 15 – October 21



31

Trending Posts on Reddit October 15 – October 21



32

For More Information

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 - ❑ <http://www.casos.cs.cmu.edu/bios/carley/carley.html>
- ❑ IDeaS website - <https://www.cmu.edu/ideas-social-cybersecurity/>
- ❑ CASOS website - <http://www.casos.cs.cmu.edu/>
- ❑ Social Cybersecurity Working Group - <http://social-cybersecurity.org>
- ❑ Facebook: [@IDeasCMU](https://www.facebook.com/IDeasCMU)
- ❑ Twitter: [@IDeaSCMU](https://twitter.com/IDeaSCMU)
- ❑ YouTube: [IDeaS Center](https://www.youtube.com/IDeaS-Center)
- ❑ Ask to be on our Email-Distro Lists

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