

Parenting, Vaccines, & COVID-19: A Machine Learning Approach to Digital Leisure Research

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Clemson University
The Academy of Leisure Sciences Conference
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A camp
director
who
happens to
be a PhD
student



2022



2012

How did we get here?



What do we do now?

CHICAGO NEWS METRO/STATE

Chicago doctors battle COVID vaccine misinformation: No, the shot won't make you infertile, and other myths

It's a race against time to get the vast majority of the population vaccinated and misinformation is causing hesitancy for getting shots.

By Brett Chase | Sept 7, 2021, 6:00am EST

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Florida Family Indicted for Selling Toxic Bleach as Fake “Miracle” Cure for Covid-19 and Other Serious Diseases, and for Violating Court Orders

Defendants Accused of Attempting to Avoid Government Regulation by Selling Products Through a Company They Deceptively Named “Genesis II Church of Health and Healing”

TECH

Why it's not possible for the Covid vaccines to contain a magnetic tracking chip that connects to 5G

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Katie Tarasov
@KATIETARASOV

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Vaccine
Hesitancy

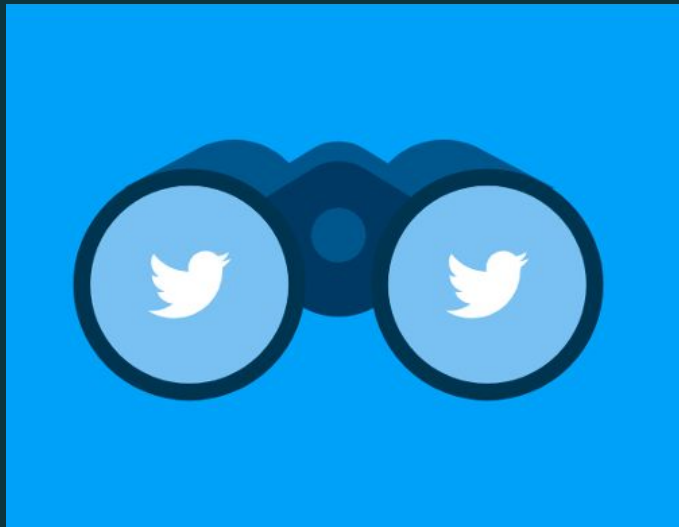
How do we get access?

Parents

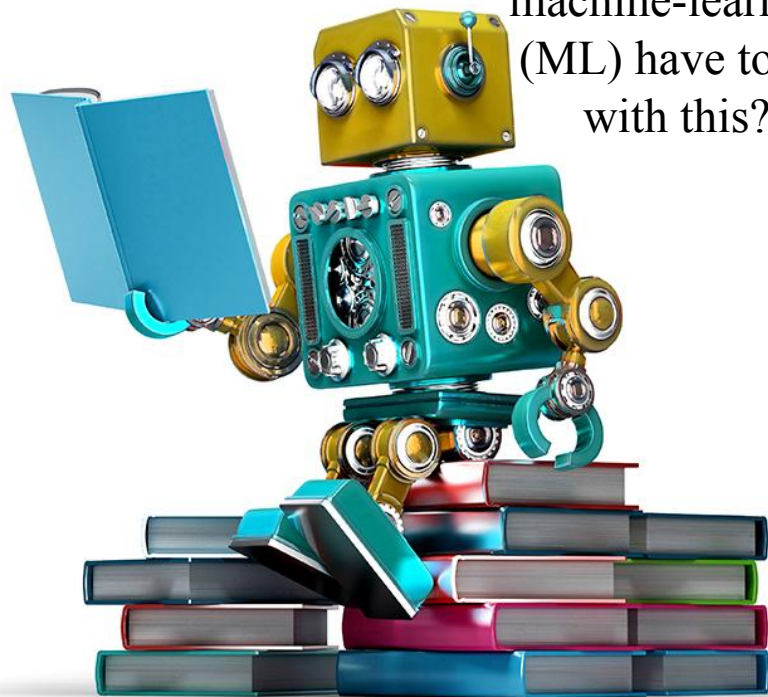


What are the conversations and commentary occurring on social media about parenting, vaccine hesitancy, and COVID-19?





What does
machine-learning
(ML) have to do
with this?



Data Management

126054	x9619051041	x133938946	#####
126055	x1301502950	x133938945	#####
126056	x2752937552	x133938942	#####
126057	x2746659880	x133938942	#####
126058	x128431628	x133938942	#####
126059	x1099268883	x133938941	#####
126060	x20287312	x133938939	#####
126061	x4556793707	x133938937	#####
126062	x7237580054	x133938937	#####
	x1191705269	x133938937	#####
126063			
126064	x40832739	x133938936	#####
126065	x1283099516	x133938935	#####
	x4178238262	x133938934	#####
126066			
126067	x1140721226	x133938933	#####
126068	x1167559093	x133938932	#####

Original Twitter data



Volume



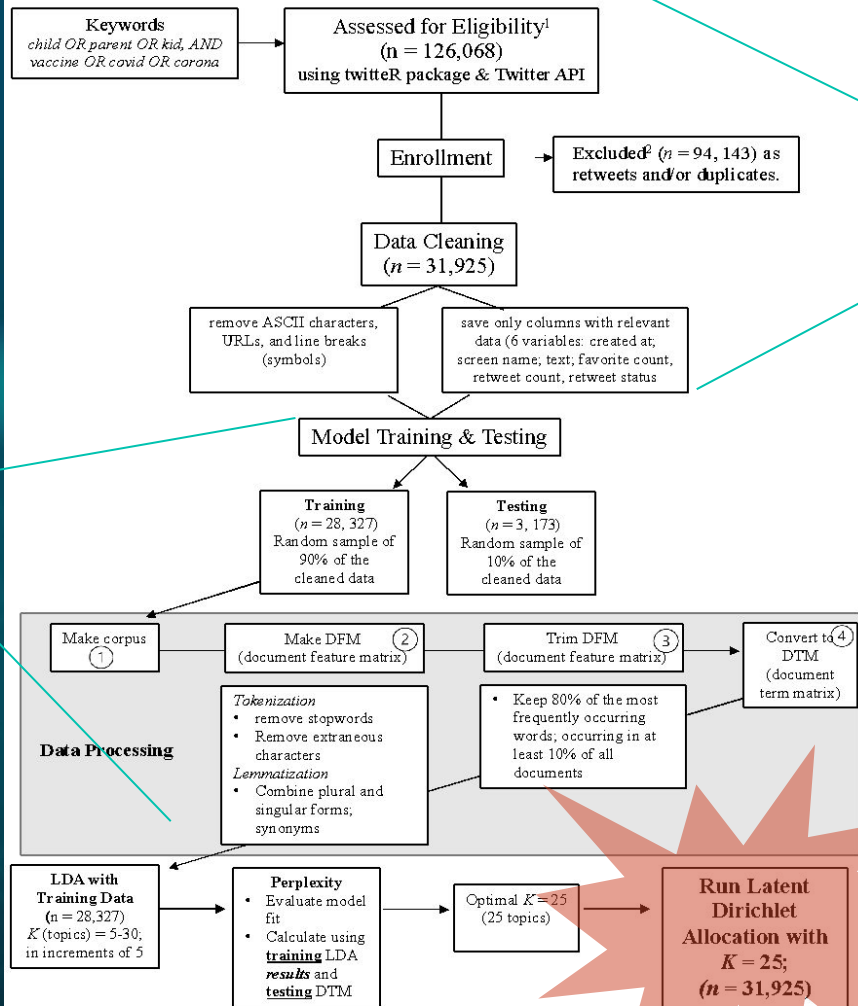
Velocity



Variety

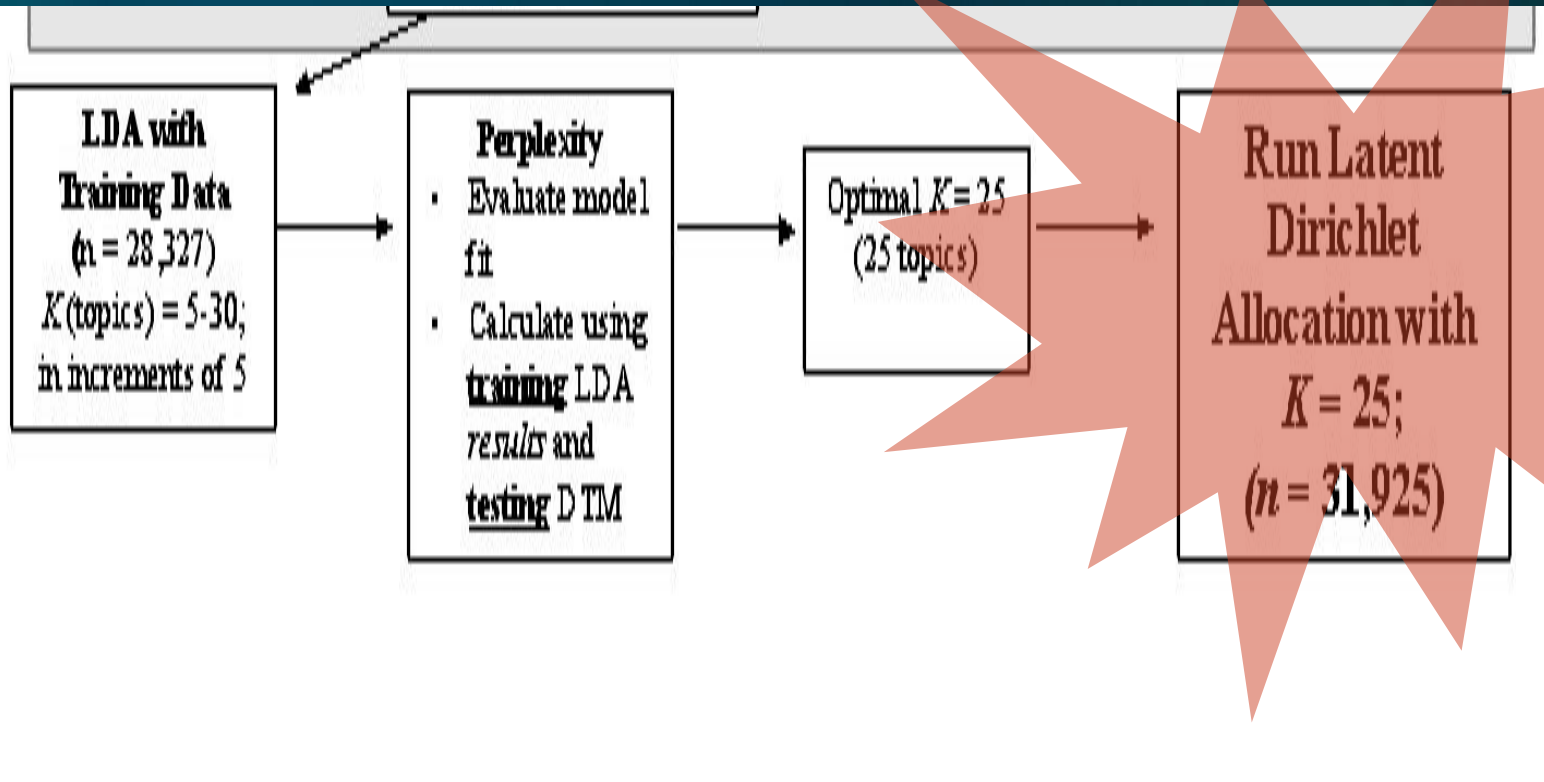


Veracity



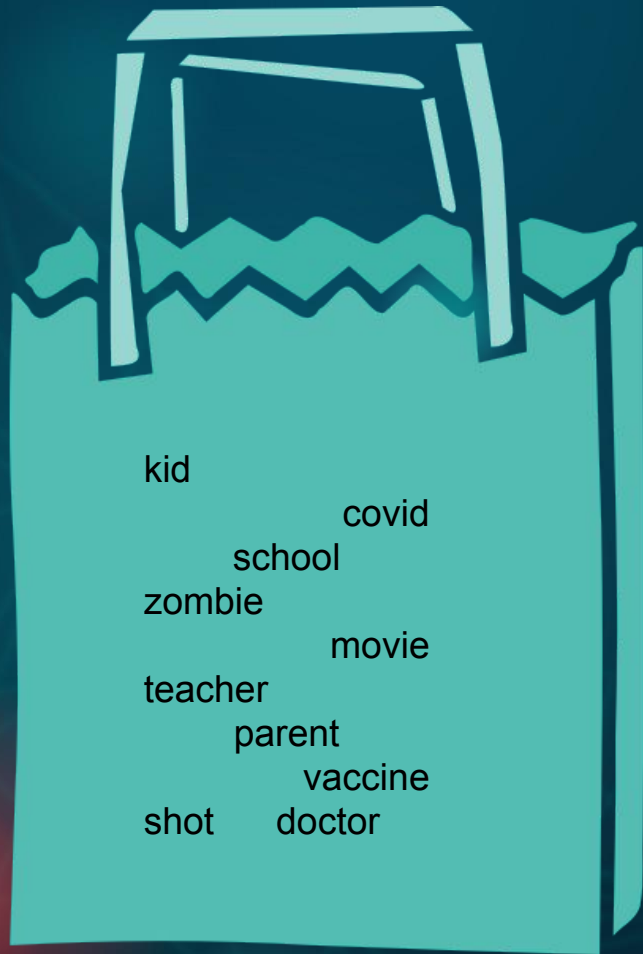
Data
collection &
cleaning

ML approach
to data
analysis

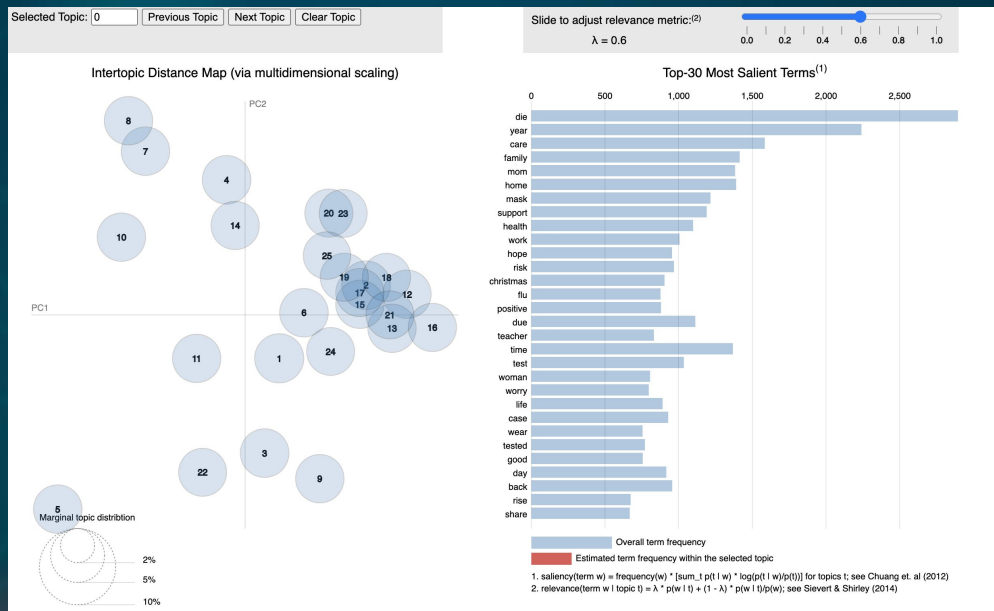


Latent Dirichlet Allocation

*A machine-learning model
that belongs to the topic
model family.*



Visualizing Topics with LDAvis



Government
Feelings
School
Public Health
Christmas
Risk & Safety
Families

bit.ly/3vVVfM2



Recommendations for Practice: Risk & Safety Grouping [Topics 11, 16, 20]



SCAN ME

Risk & Safety Grouping Representative Tweets

Nothing like sacrificing your precious child to a vaccine with NO safety data for pregnant, breastfeeding mothers or for rapidly growing children. Sure hope he's not harmed

@SkyNews @RachelReevesMP I'm a single parent dad and I would rather b at home with my kids then put them at risk in school which every week u here a new case of Covid. Only parents that seem 2 want to put the kids in school are the 1s that don't want to stop working or don't want 2 b stuck at home wiv them.

Recommendations

- What is your camp's immunization policy *management* strategy?
- For parents: Include resources from the CDC and AAP in your camp's Health History form to address vaccine hesitancy.
- For camps: Include resources from the CDC and AAP in your camp's communicable disease plan.

Implications for Research

Challenges with research at the frontier



“goibibo” “ik4ea9l4kr”



“jaehyun” “goldenchild”



Data Science for Leisure Scientists



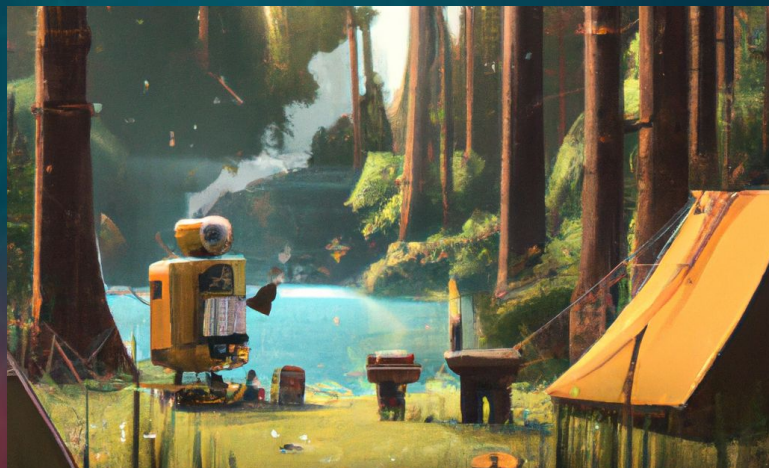
Addressing twenty-first
century issues requires
twenty-first century skills.



Stay in touch!

Thurson, K.M., Gagnon, R.J., Garst, B.A., & Sharaievska, I.
(2023). *Vaccine hesitancy, parental concerns and COVID-19 in a digital leisure context: Implications for out-of-school time*. *Journal of Leisure Research*.

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