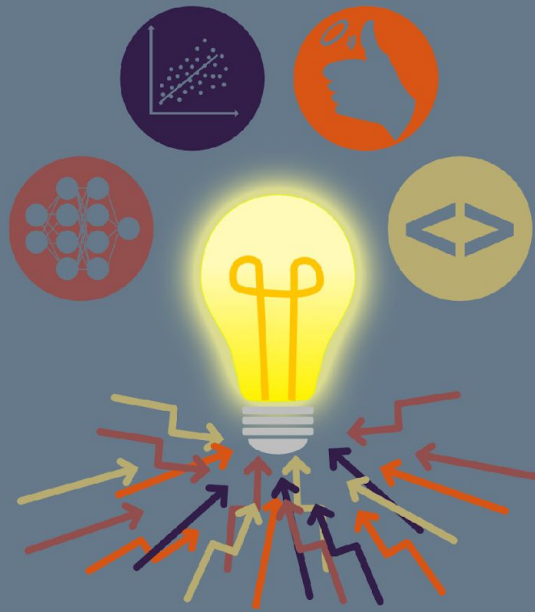

Welcome to USCOTS 2025!

Useful
Models



USCOTS 2025

Iowa State University

Pre-Conference: July 15th - 17th

Conference: July 17th - 19th

Please stand (or wave) if you

...

are attending your first
(in-person) USCOTS

We promise to be extra-nice to
those wearing a first-timer sticker

Please stand (or wave) if you

...

are attending your 11th
USCOTS

Hint: This is the 11th USCOTS

Please stand (or wave) if you

...

were born in Iowa

AND

you scored more points than
anyone else in women's
college basketball history

Caitlin Clark



Please stand (or wave) if you

...

attended Iowa State University

AND

were the last player picked in
the 2022 NFL draft

Brock Purdy



Please stand (or wave) if you

...

have an affiliation with Iowa
State University (faculty, staff,
student, alum, ...)

Thanks for hosting us!

Please stand (or wave) if you

...

are the Director of the Consortium
for the Advancement of
Undergraduate Statistics Education
(CAUSE)

Let's hear from Matt Beckman

Please stand (or wave) if you

...

are the chair of the Iowa State
Statistics Department

Let's hear from Dan Nettleton

Please stand (or wave) if you
...

teach at a two-year college or
high school

Welcome!

Please stand (or wave) if you

...

teach outside of a
department of statistics or
mathematics or data science

Welcome!

Please stand (or wave) if you

...

are currently a student

Welcome!

Please stand (or wave) if you

...

have ***ever*** been a student

Please stand (or wave) if you

...

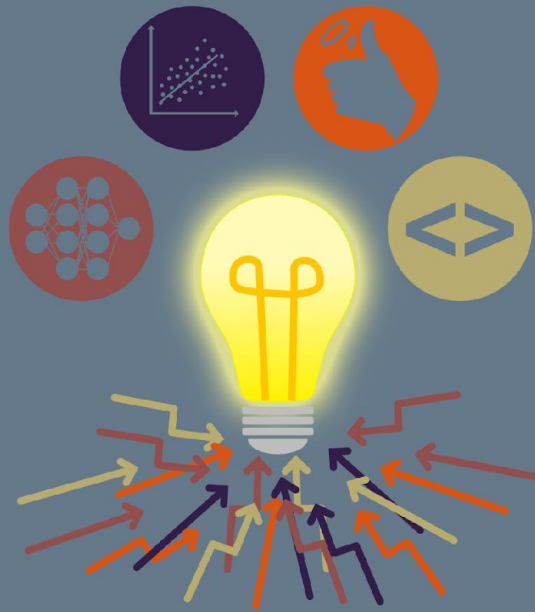
have ever developed, or used,
or taught about, a useful model

The conference theme pertains
to everyone, I hope!

And now ...

- Five-minute presentations on conference theme

Useful
Models



USCOTS 2025

Iowa State University

Pre-Conference: July 15th - 17th

Conference: July 17th - 19th

And now ...

- Five-minute presentations on conference theme
- “All models are wrong, but some are useful.”
 - George Box

Five-minute talks

- Dennis Pearl, Founding Director of CAUSE
- Justin Post, North Carolina State Univ
- Kim Roth, Juniata College / Penn State Univ
- Mine Dogucu, Univ of California - Irvine
- Rachel Saidi, Montgomery College
- Vimal Rao, Univ of Illinois

Please stand (or wave) if you

...

never set foot in Iowa before
this week

Welcome to Iowa!

Please stand (or wave) if you

...

landed at DSM after midnight

AND

are the IT guru for CAUSE/USCOTS

Many thanks to Andrew Ferguson!

Please stand (or wave) if you

...

have invested many hundreds of
hours of work in bringing USCOTS to
Iowa

Many thanks to Laura Ziegler!

Please stand (or wave) if you

...
have a bird on your clothing today

AND

were born in Iowa

AND

are co-program chair for this
conference

Let's hear from Kelly McConville

Useful Models - version 3.5

(3 observations in 5 minutes)

Observation One

“Useful Models” \neq “Use Full Models”

Observation Two

“Useful Models”? “Useful” for what?

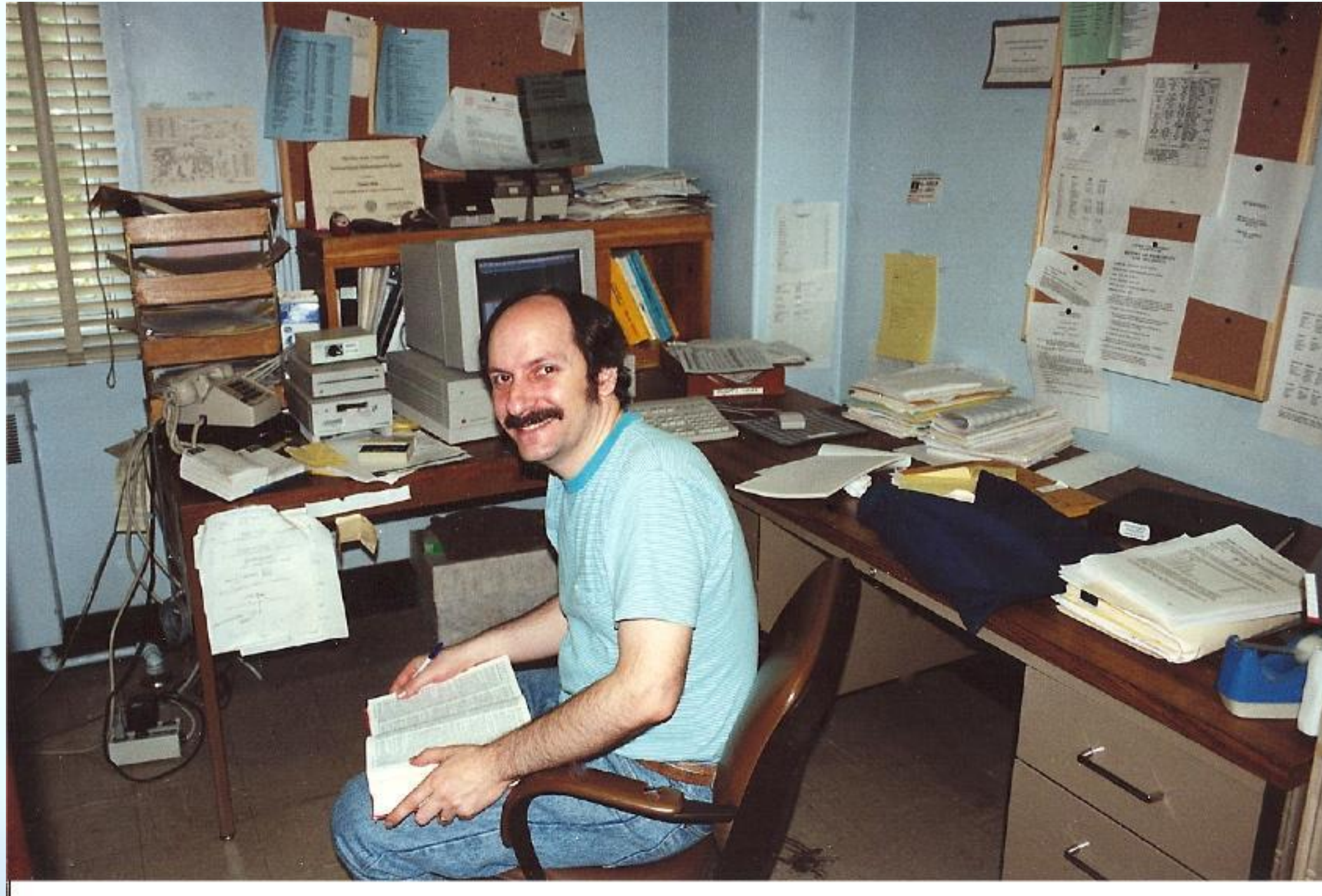
Observation Three

Also useful to model good practice in the classroom

e.g. the importance of archiving all things data

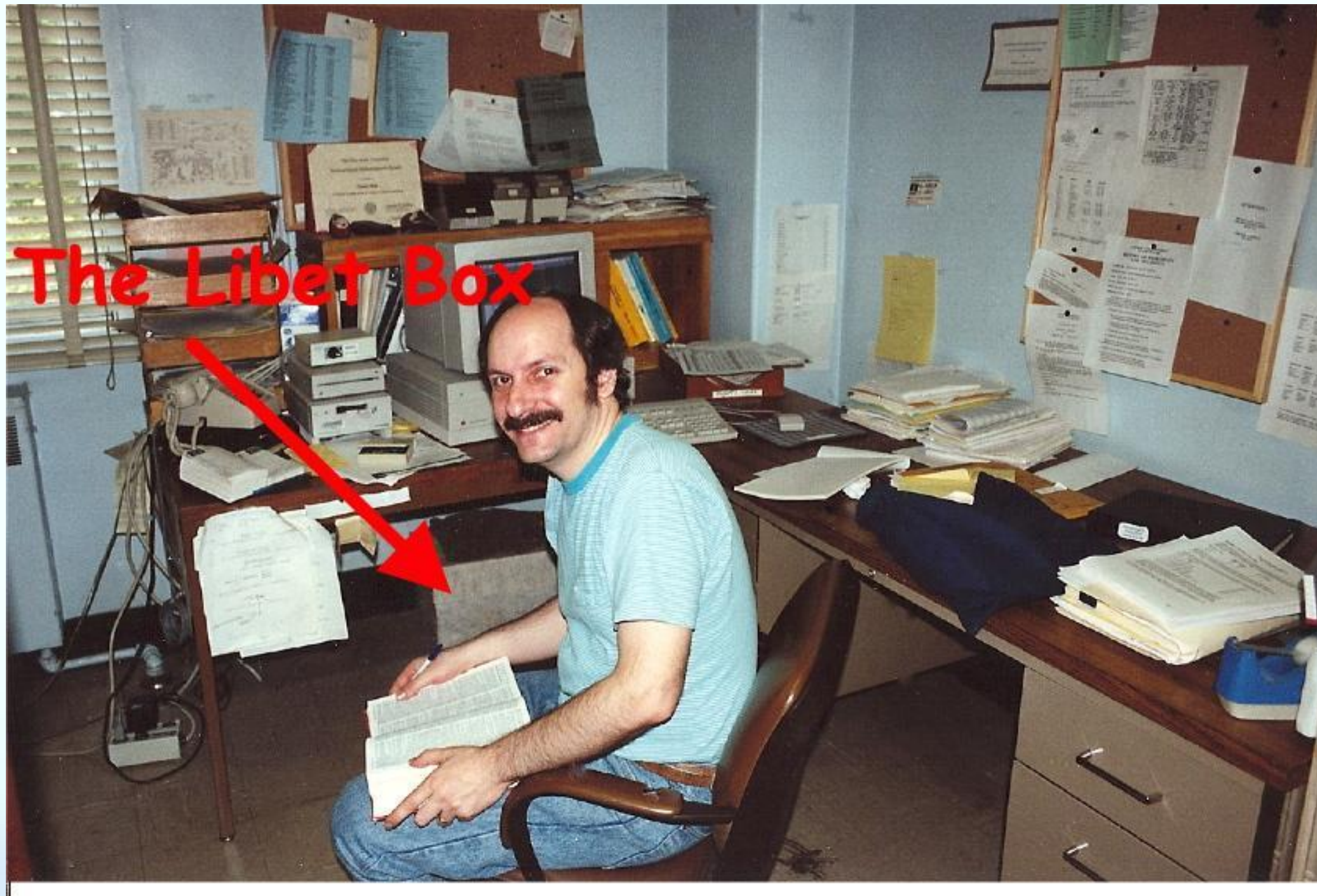
The Story of the Libet Box

Moral: Importance of archiving all things data



The Story of the Libet Box

Moral: Importance of archiving all things data



The 46 year Timeline

- 1977 start collaboration with Libet, keep everything in The Libet Box
- 1982 me and the box move to Ohio State,
- 1990's early 2000's Libet's work goes viral
 - In Philosophy, Psychology, Physiology, Biology, Chemistry, ...
 - 2003 Libet wins "Virtual Nobel prize in Psychology" from University of Klagenfurt in Austria
- 2007 Libet passes away (age 91)
- 2011 "*Libet's Delay*" by musical artist The Caretaker rises on the charts
- 2014 me and the box move to Penn State
- 2019 phase retirement to half-time
- 2020 COVID Pandemic
- 2022 phase retirement to quarter time - move to Philadelphia without the box

The Tell-Tale Heart by Edgar Allan Poe (1843)



Oct/Nov 2023

INNOVATION > SCIENCE

Testing A Time-Jumping, Multiverse-Killing, Consciousness-Spawning Theory Of Reality

By [Andréa Morris](#), Contributor. ⓘ Andréa Morris reports on emergent intellig... [Follow Author](#)

Published Oct 23, 2023 at 02:04pm EDT, Updated Nov 02, 2023 at 10:13am EDT

[Share](#) [Save](#)



Nobel Laureate in Physics, Roger Penrose poses with his Nobel medal
POOL/AFP VIA GETTY IMAGES

“This retroactive idea. It has to be that,” says Nobel Prize-winning mathematical physicist Sir Roger Penrose, reflecting on a problem about the building blocks of reality that has dogged physics for nearly a century. “Any sensible physicist wouldn't be perturbed by this,” he adds. “However, I'm not a sensible physicist.”

If Penrose isn't a sensible physicist it's because the laws of physics aren't making sense, at least not on the subatomic level where the smallest things in the universe play by different rules than everything we see around us. He has reason to believe this disconnect involves a fissure that divides two different kinds of reality. He also has reason to believe that the physics bridges these realities will unlock answers to the physics of consciousness, the mystery of our own existence.

NOW PLAY



FORBES' F

Screenshot

Oct/Nov 2023

thinks human beings might be physical systems sensitive enough to test for consciousness registering retro-activity.

Retroactivity In Psychological Experiments

“Am I the last survivor of the team?” asks Dennis Keith Pearl, statistician and co-author of a 1979 experiment led by late psychologist Benjamin Libet. Libet is best known for his seminal research that seems to show that our choices to act are too slow to be made consciously. The brain “registers” the decision to make movements before we consciously decide to move. Libet studies are controversial because they seem to do away with free will. Penrose isn’t too concerned with free will, but he does believe our choices are made consciously, not unconsciously, regardless of whether or not they’re free. Decades ago, physicist Erich Harth, a colleague of Penrose, brought Libet’s 1979 experiment to Penrose’s attention. Harth thought it may contain evidence that the brain is registering retro-activity. Retro-activity could give us the fractions of a second we need to salvage conscious choice. Harth included an interpretation of the Libet study in his book *Windows On The Mind*.

Pearl was a graduate student in 1979 and the youngest on Libet’s research team, which included California senator Dianne Feinstein’s husband, neurosurgeon Bertram Feinstein. “Too bad you weren’t asking me 10 years ago,” says Pearl as he struggles to remember details from a half-century-old experiment. “I had a box full of all the original records from my work with Ben,” says Pearl. “I had lots of notes from Ben and original graphs and things like that.” Pearl had never been contacted about his work with Libet, despite the fact that Libet names Pearl in his written defense of his research, at one point writing in the journal of *Consciousness and Cognition* to “take up any statistical difficulties with Dennis Pearl.” Boxes of materials and raw data were tossed out during a move a decade ago. Now Pearl carefully inspects the graphs that Harth constructed, graphs interpreted from the 1979 study. “I think everything that [Harth’s] got on this graph is correct in terms of what’s reported,” says Pearl.

He’s drawn to Penrose’s use of probabilities in consciousness. He recalls a Libet experiment that he thinks might be of interest to Penrose. Libet stimulated a subject with a short burst of stimulus, and asked the subject if they felt it. The subject would report they did not. So Libet would ask the subject to hazard a guess. An ultra-short burst of stimulus that wasn’t likely to be felt resulted in sheer random guesses. As the bursts extended in duration, the subject

What We Model

Justin Post
North Carolina State University
USCOTS 2025

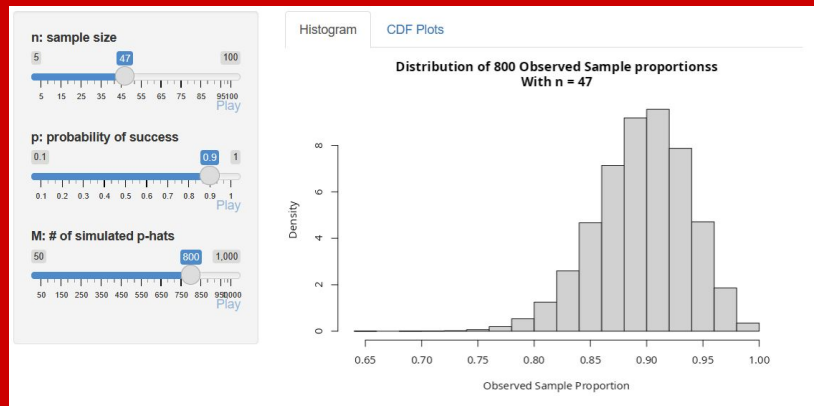
Allan's cats!



My cats!



What We Model



Modern Statistical Practice

Modern Statistical Practice

Data Science ****nudging**** our curriculum

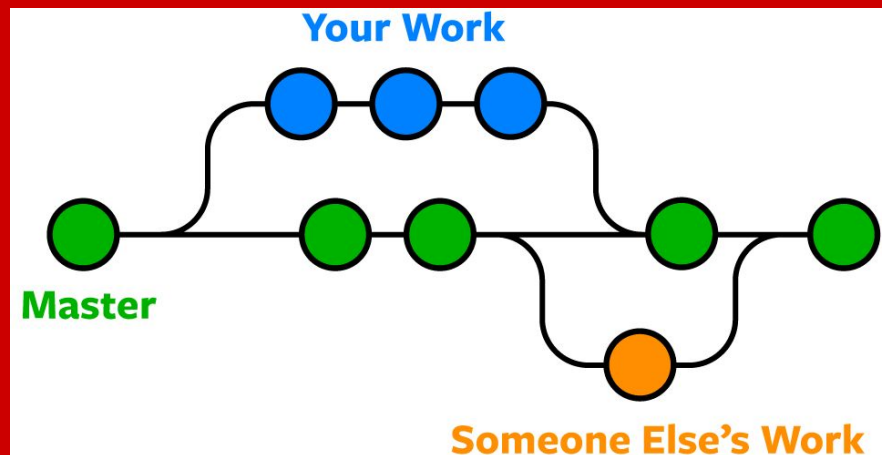
- Data Visualization
- Prediction vs Inference
- Rethinking how we teach core concepts
- Programming paradigms



Modern Statistical Practice

Reproducible Workflows

- Quarto/R Markdown
- Version Control



Modern Statistical Practice

Responsible AI Use

- Idea Generator
- Efficiency Tool
- Hallucinations
- Carbon Footprint
- Copyright

MIT News

ON CAMPUS AND AROUND THE WORLD

Explained: Generative AI's environmental impact

Rapid development and deployment of powerful generative AI models comes with environmental consequences, including increased electricity demand and water consumption.

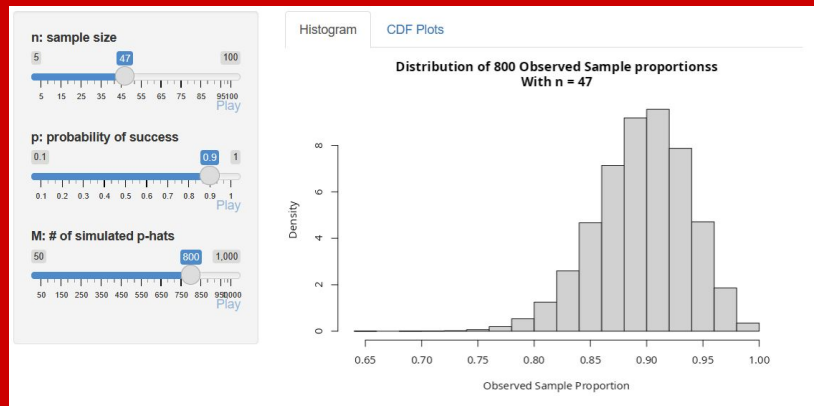
Adam Zewe | MIT News
January 17, 2025



NEDA Suspends AI Chatbot for Giving Harmful Eating Disorder Advice

Staff Writer | June 5, 2023

What We Model



Modern Statistical Practice

Ethics, Compassion, & Empathy

Ethics, Compassion, & Empathy

Ethics

- Biases in Data
- Data Confidentiality

Ethical data use

- Where do these data come from?
- How were these data collected?
- What could be missing?



The image is a screenshot of a web browser showing a Reuters article and a Twitter thread. The Reuters article is titled "Insight - Amazon scraps secret AI recruiting tool that showed bias against women" by Jeffrey Dastin, dated October 10, 2018. The article discusses Amazon's decision to scrap an AI recruiting tool that exhibited bias against women. Below the article is a Twitter thread. The first tweet is from Ethan Jewett (@esjewett) dated May 11, 2016, replying to @KirkegaardEmil. He states that the data set is highly re-identifiable and includes usernames, questioning the effort to anonymize it. The second tweet is from Emil O W Kirkegaard (@KirkegaardEmil) dated May 11, 2016, replying to @esjewett. He responds that the data is already public. The thread has 3 likes and was posted at 12:30 PM.

Reuters World Business Markets Sustainability Legal Commentary Technology Investigations

Insight - Amazon scraps secret AI recruiting tool that showed bias against women

By Jeffrey Dastin
October 10, 2018 8:50 PM EDT · Updated October 9, 2018

Ethan Jewett @esjewett · May 11, 2016
Replying to @KirkegaardEmil
[@KirkegaardEmil](#) This data set is highly re-identifiable. Even includes usernames? Was any work at all done to anonymize it?

Emil O W Kirkegaard @KirkegaardEmil
[@esjewett](#) No. Data is already public.

3 12:30 PM - May 11, 2016

Ethics, Compassion, & Empathy

Consider

- Syllabus guidelines
- Alternative grading
- Diversity, Equity, Inclusion, & Belonging



MAKE DATA ART

KIM ROTH

JUNIATA COLLEGE/PENNSYLVANIA STATE UNIVERSITY

USCOTS 2025

JULY 17, 2025

WHY DATA ART?

- AESTHETICALLY PLEASING
- WIDER AUDIENCE
- ACCESSIBLE
- ANYONE CAN TRY IT
- MORE MEMORABLE

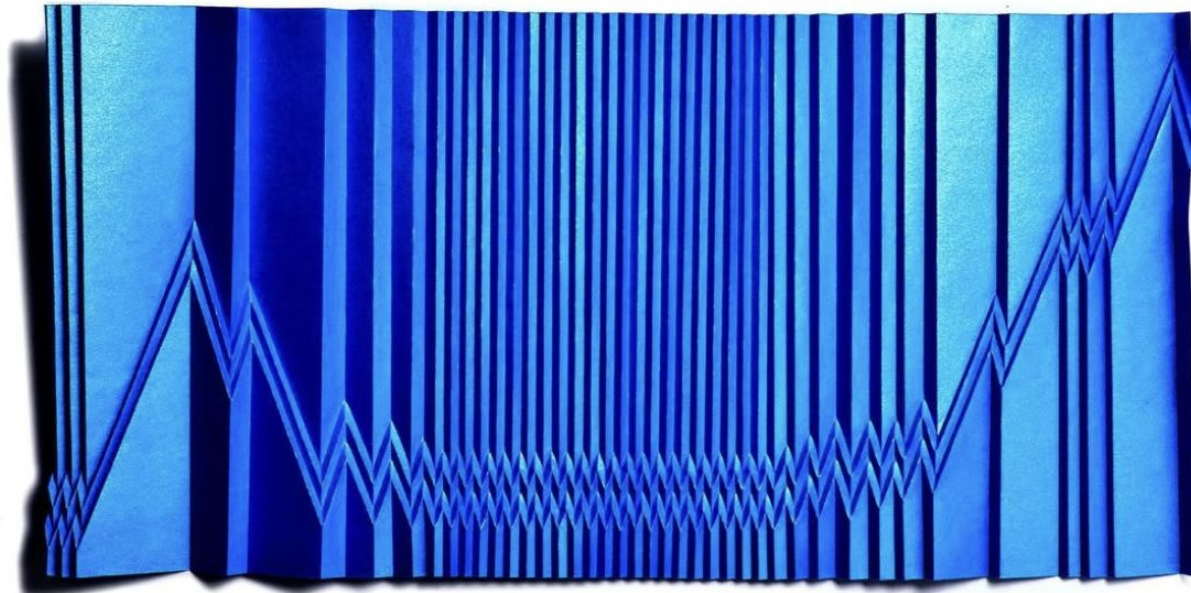
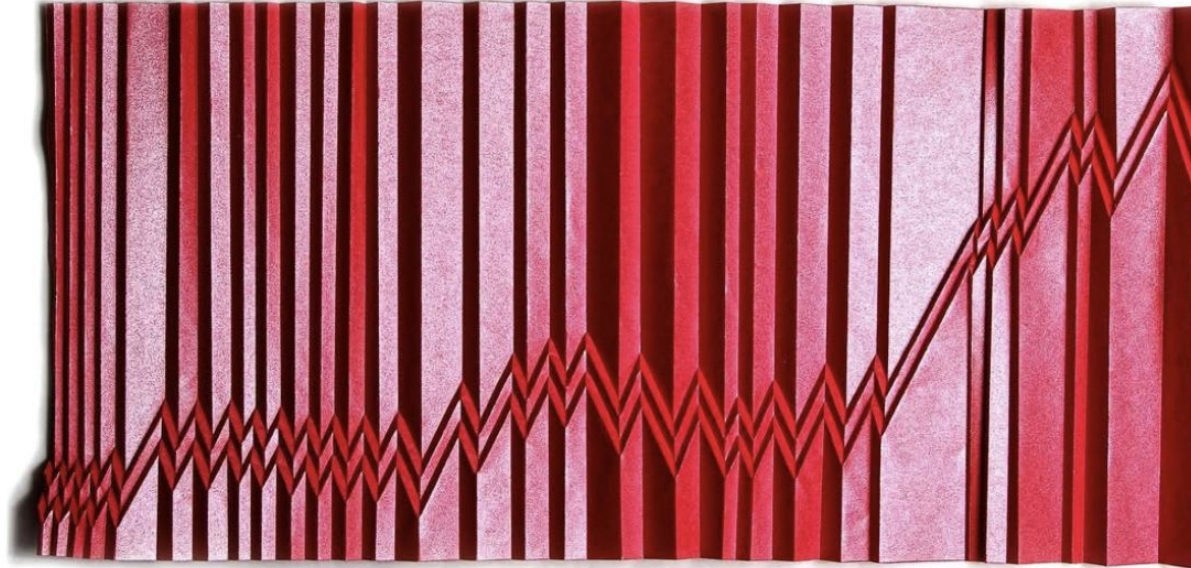
PLANETARY FEVER COWL BY STEPHANIA FREGOSI



Pattern: <https://ravel.me/planetary-fever-cowl> Yarn: <https://threefatesyarns.com>

K Roth, Make Data Art

ORIGAMI GRAPHS BY UYEN NGUYEN (WINWIN)



winorigami



winorigami I just submit this to the Bridges Art Exhibition for this year, and a few of the people I've shown have encouraged me to post it. It was made using an algorithm I developed while in isolation to design origami patterns that follow mathematical equations or graphical data. These designs were modeled off of the data for the number of new cases of COVID-19 in the US (red, above) and NY (blue, below) from March 1, 2020 to January 20, 2021. I got my reference data from [@nytimes](#)

I call it "Cases of Covid in Creasing".

[#origami](#) [#paper](#) [#folding](#) [#paperfolding](#)
[#mathart](#) [#mathartdesign](#) [#data](#) [#covid_19](#)

Edited · 224w



Liked by **mathzorro** and **240 others**

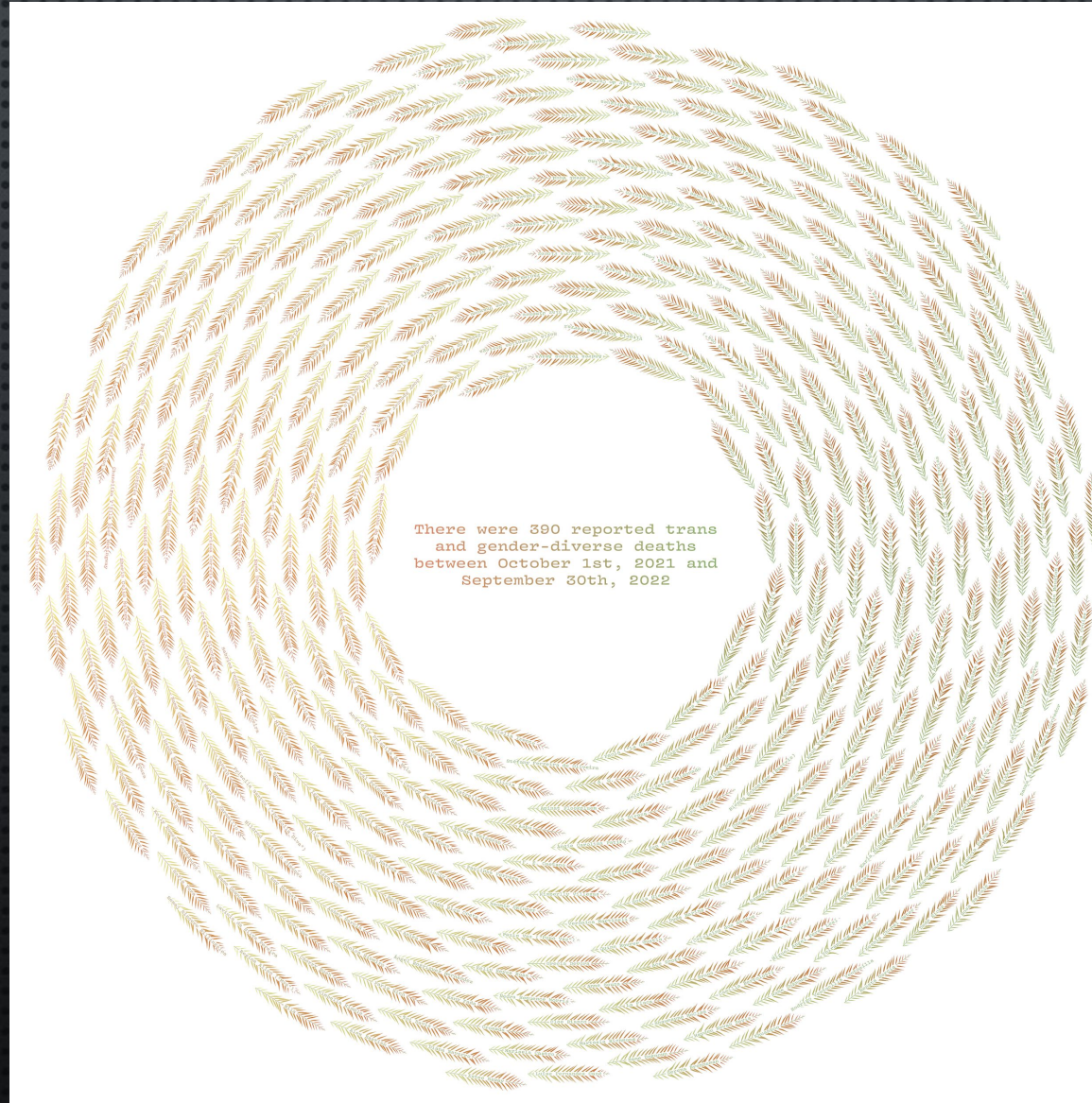
March 13, 2021



Add a comment...

Post

TRANSGENDER DAY OF REMEMBRANCE BY CATHRYN PLOEHN AND KELSEY CAMPBELL



[https://datascienceby
design.org/blog/trans
gender-day-of-remem
brance](https://datasciencebydesign.org/blog/transgender-day-of-remembrance)

K Roth, Make Data Art

SWEEPING UNTUFTED CHARTS UNDER THE RUG BY VIOLETA ROIZMAN



LIBRARY OF MISSING DATASETS BY MIMI ỌNỤỌHA



<https://mimionuoha.com/the-library-of-missing-datasets-v-20>

K Roth, Make Data Art

IDEAS

- THINK OF DATA AS ART AND ART AS DATA
- MAKE THINGS
- FIRST THINGS MAY NOT BE PRETTY

TEMPERATURE BLANKET BY KERRI CREWS



THANKS!
KAE141@PSU.EDU

[HTTPS://KAROTH.GITHUB.IO](https://karoth.github.io)

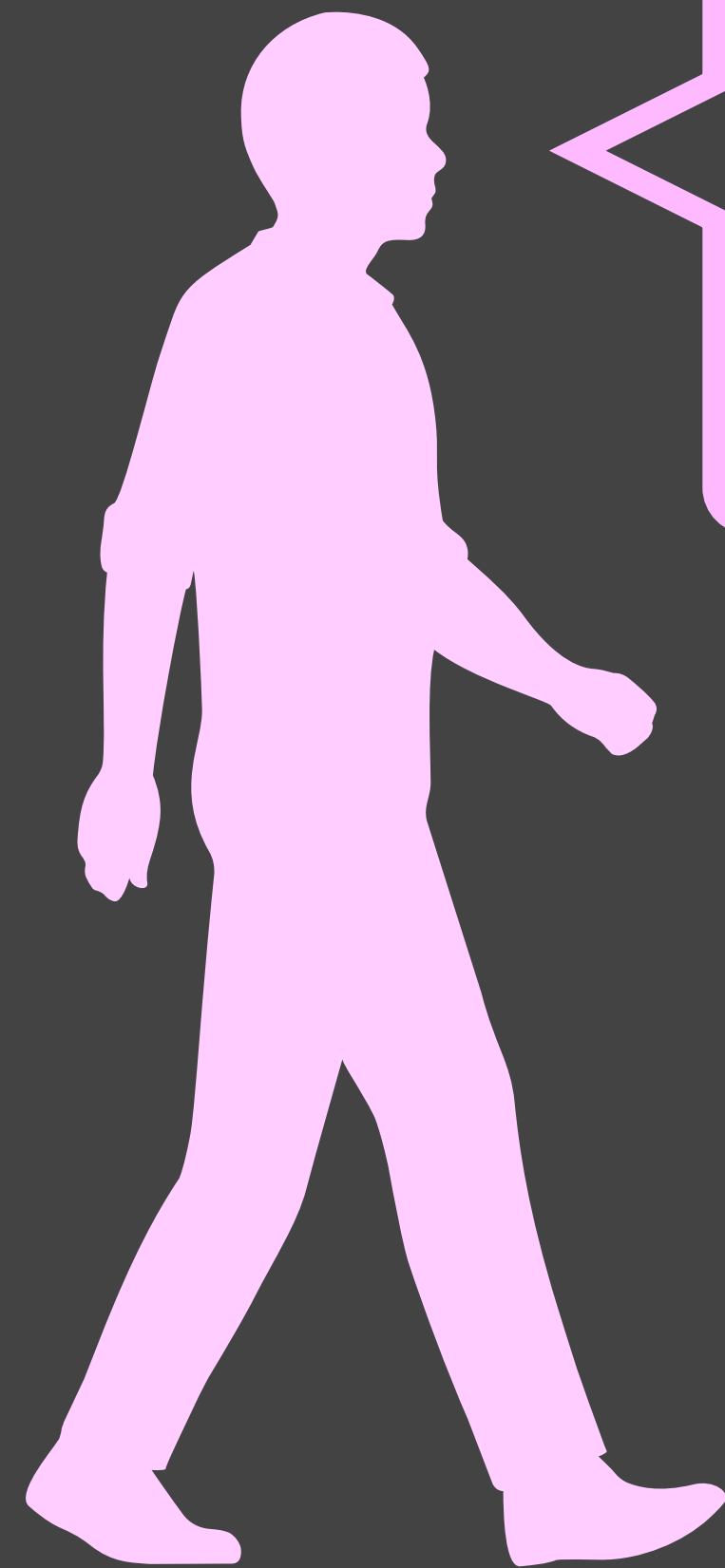
[HTTPS://MATHEMALCHEMY.ORG](https://mathemalchemy.org)

Updating Beliefs on Bayesian Modeling

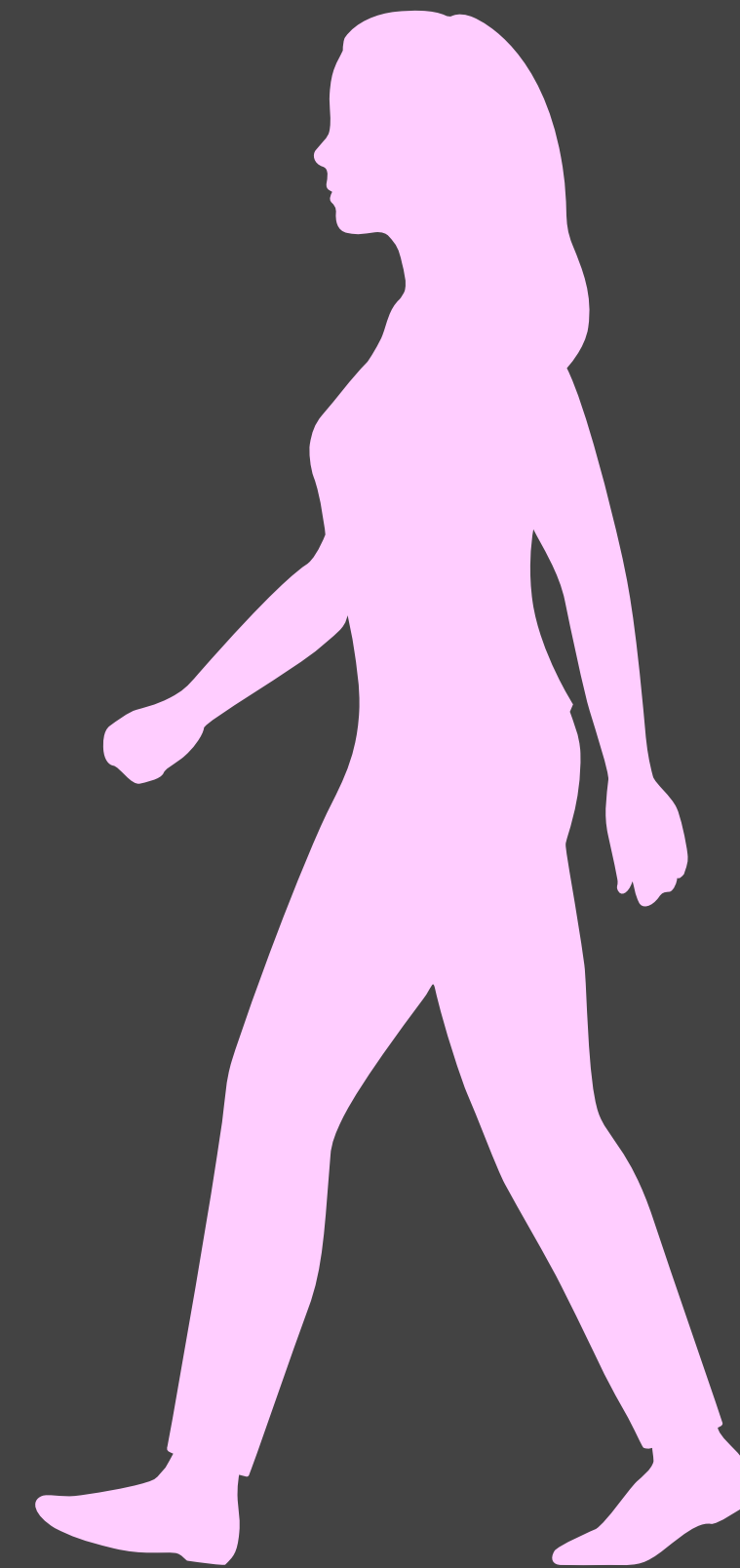
Mine Doğucu, Ph.D.

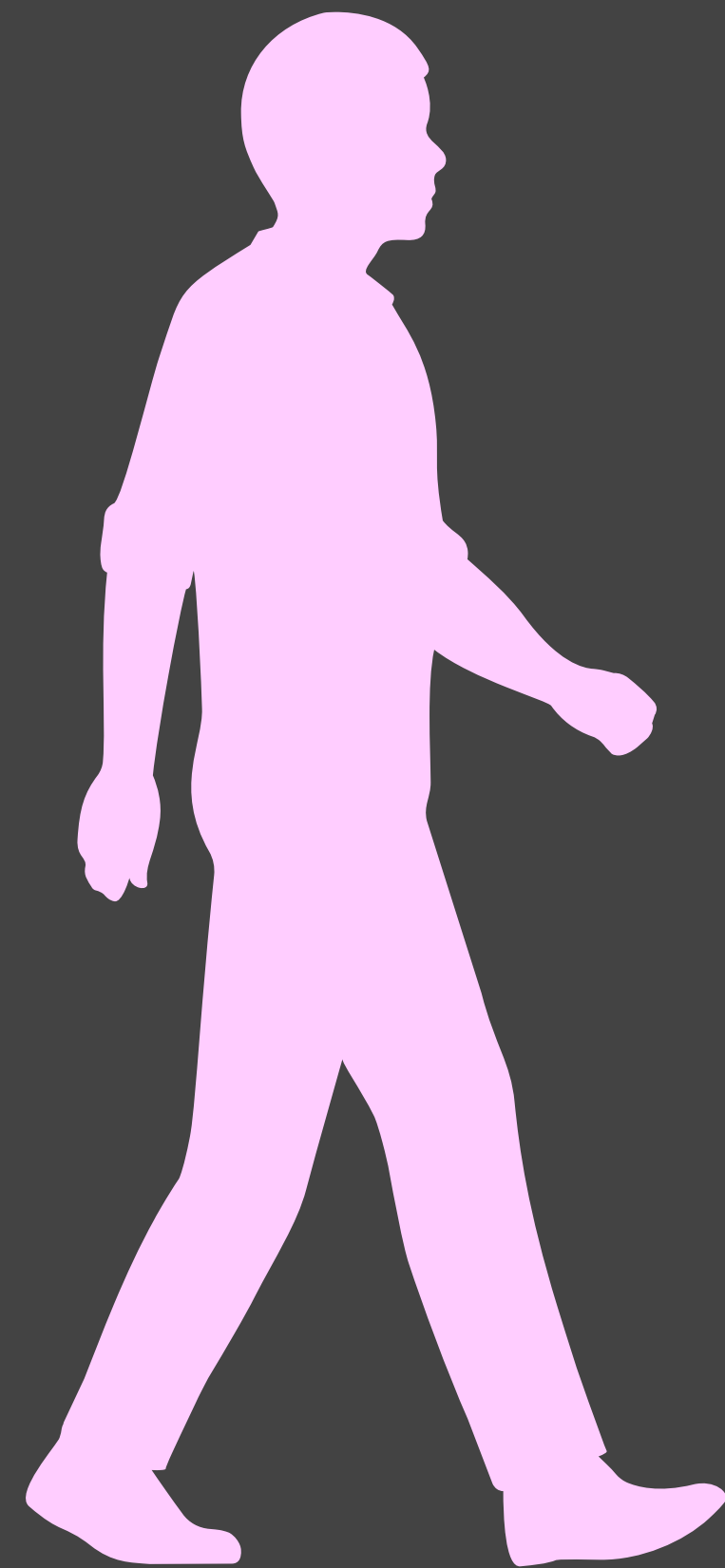
University of California Irvine

Short talk given at USCOTS on 2025-07-17

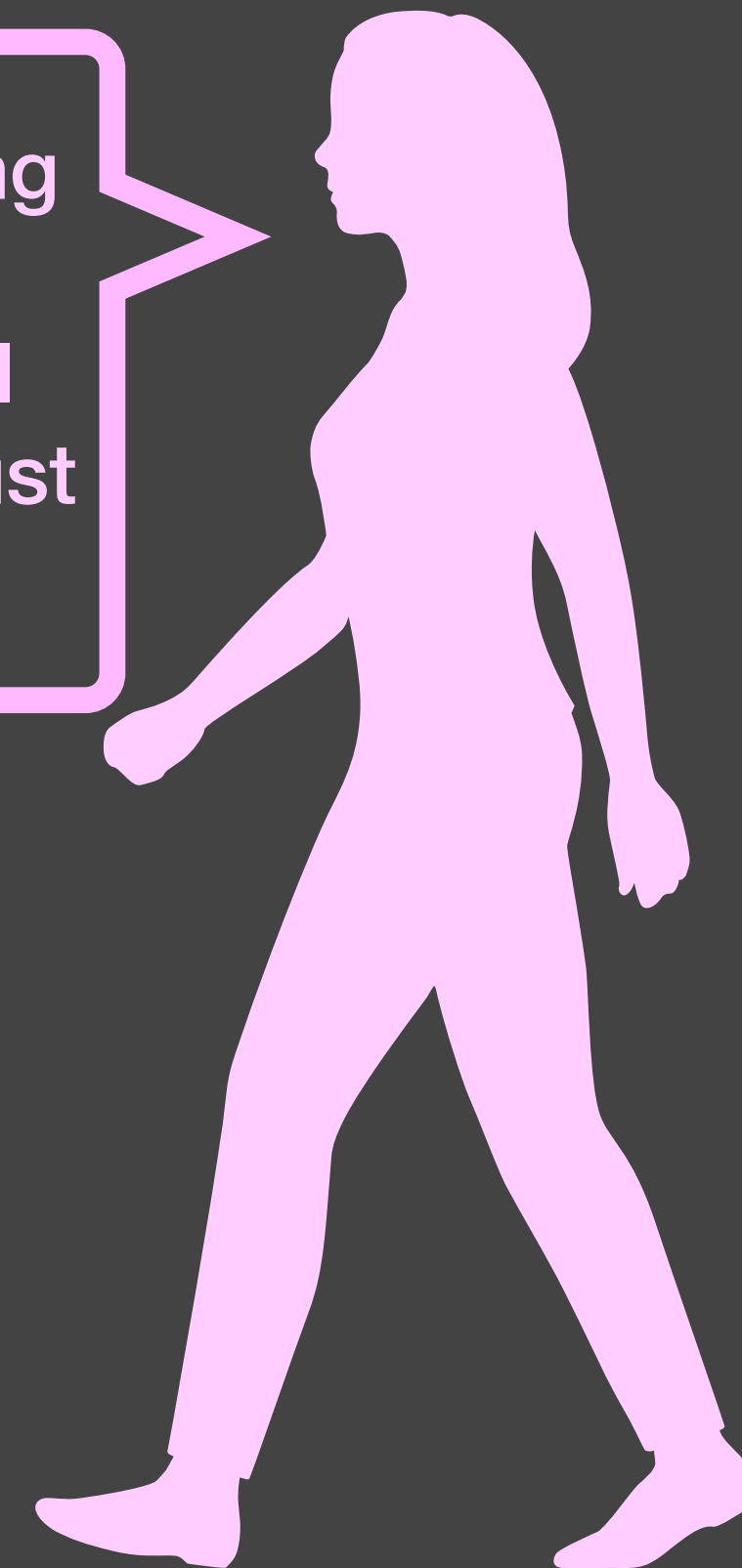


You teach Bayesian modeling to introductory level students? That must be so hard.





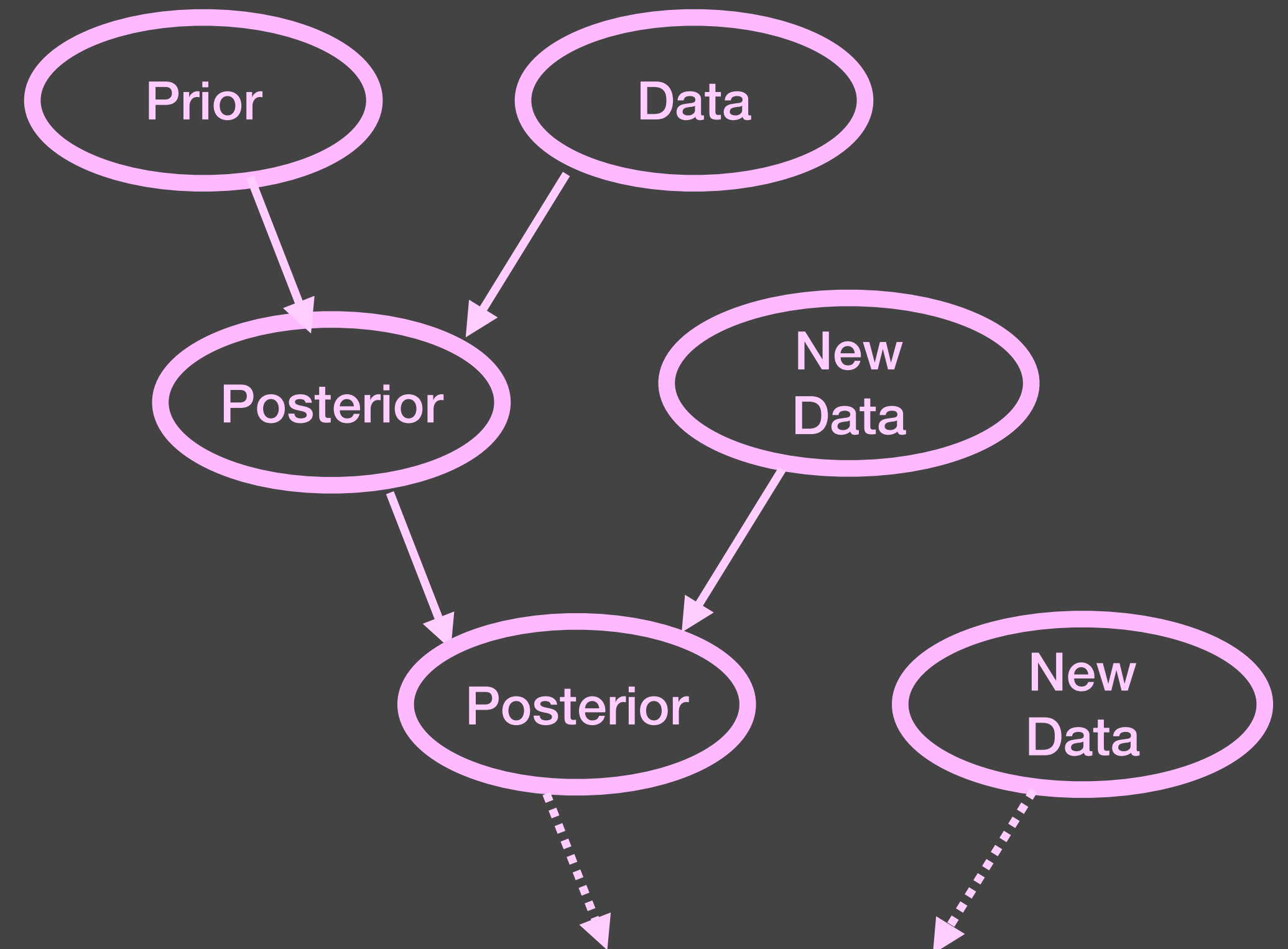
You teach sampling
distribution to
introductory level
students? That must
be so hard.

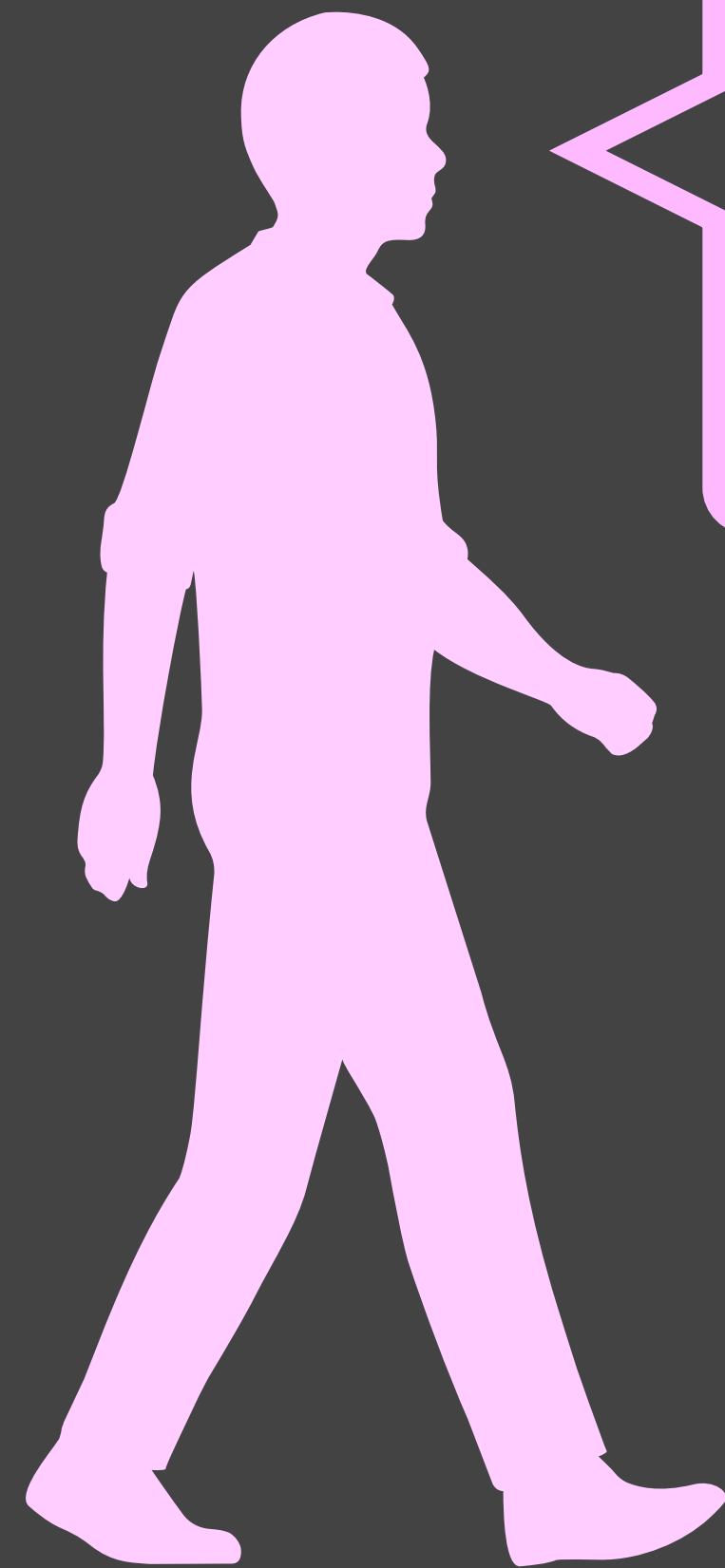


Frequentist

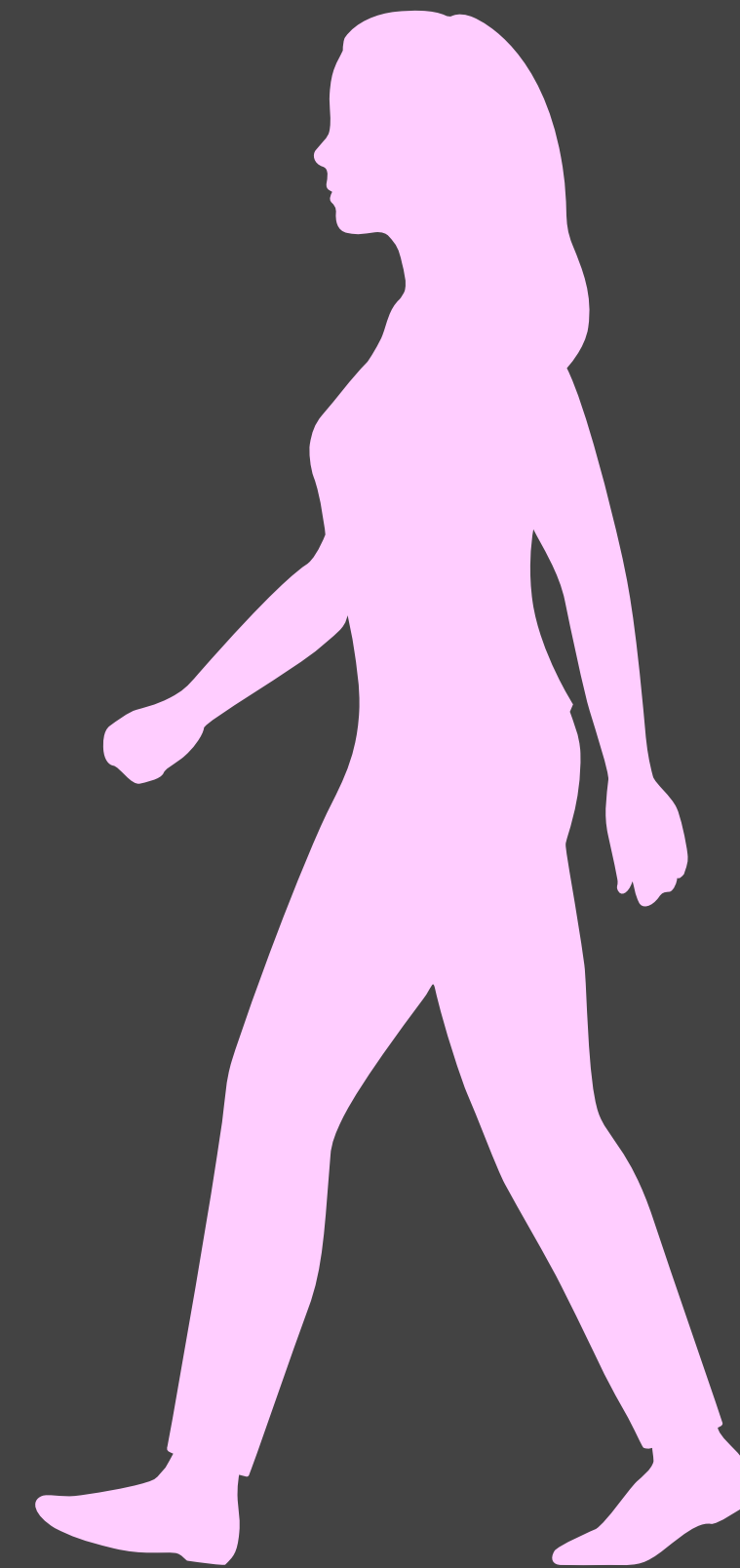


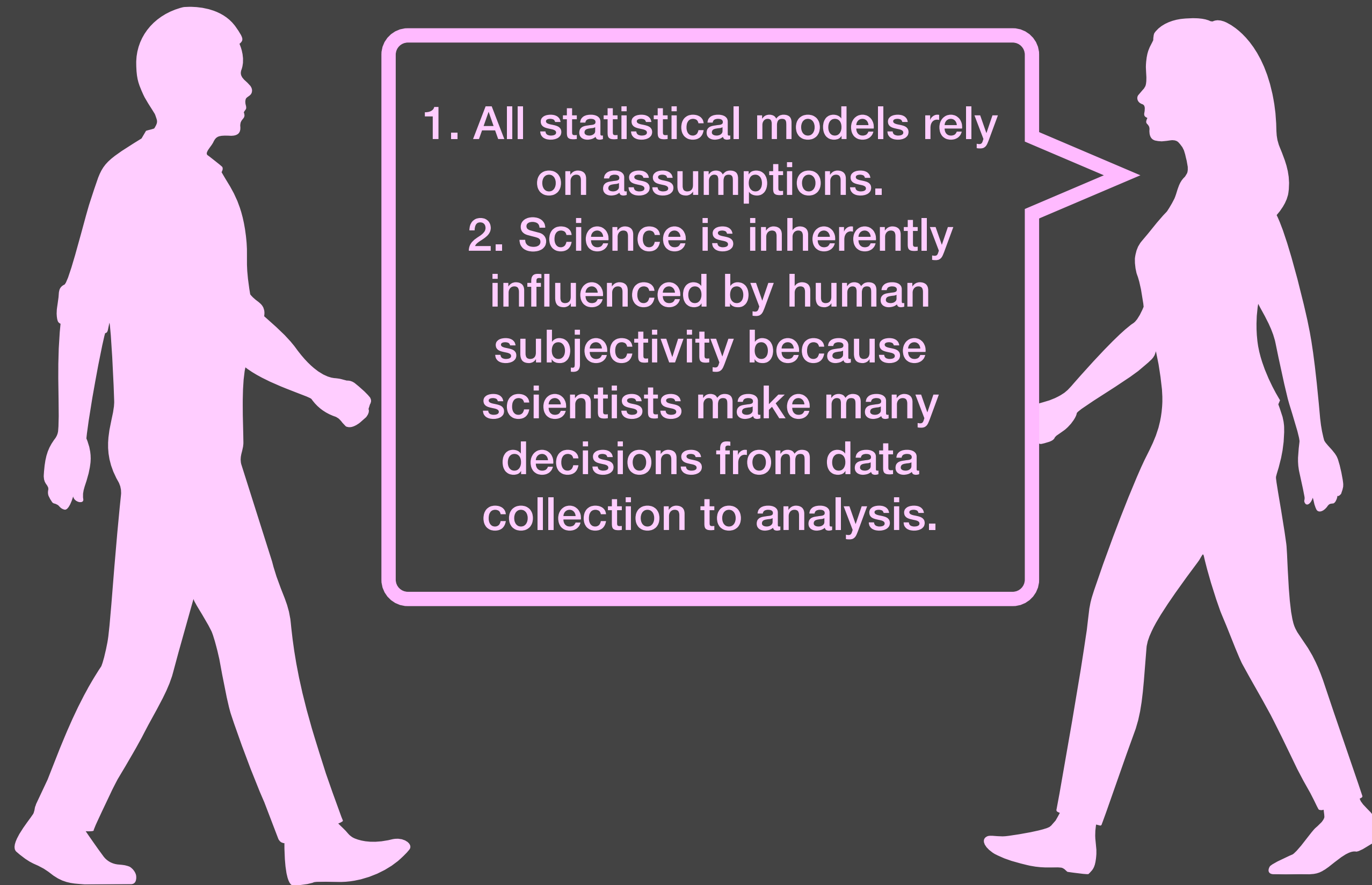
Bayesian





Wait! You use prior information? That's subjective!!! Science has no room for subjectivity.





1. All statistical models rely on assumptions.
2. Science is inherently influenced by human subjectivity because scientists make many decisions from data collection to analysis.

**WHY
TEACH
BAYESIAN?**

It might help answer a specific type of question

Example

Suppose that during a recent doctor's visit, you tested positive for a very rare disease.

If you only get to ask the doctor one question, which would it be?

a. What's the chance that I actually have the disease given that I tested positive?

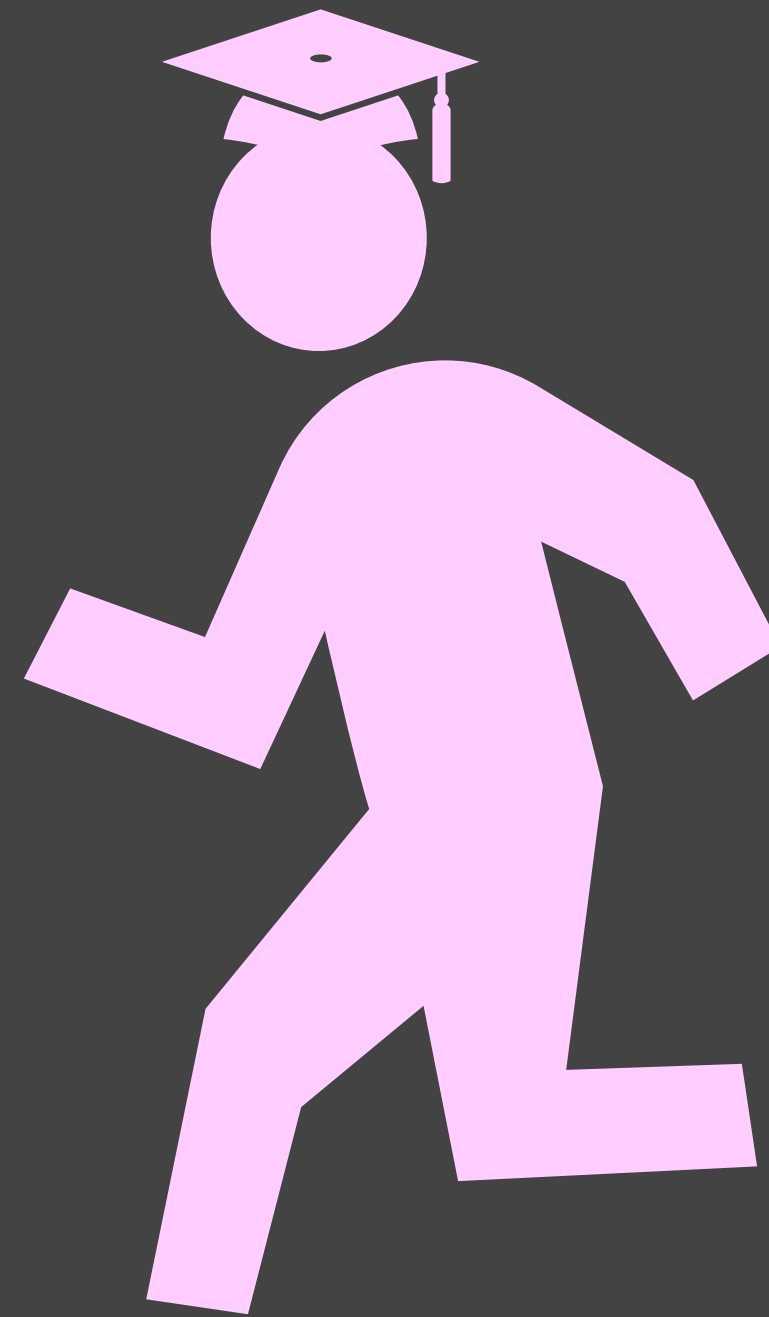
b. If in fact I don't have the disease, what's the chance that I would've gotten this positive test result?

Bayesian models can match students' intuition

So p-value is
basically the
probability of the
hypothesis.



Probability of the
parameter being in
the interval is 95%.



RESOURCES

- Join Undergraduate Bayesian Education Network Slack
- Check out undergrad-bayes.netlify.app (Textbooks, Papers, and Courses)
- Talk to me or Dr. Catalina Medina during USCOTS about our teaching experiences
- See resources from our STEM faculty training program [Bayes BATS](#) and hear Angela Ebeling and Zach del Rosario present their work from BATS.

BATS program is supported by NSF with award numbers 2215879, 2215920, and 2215709.

THANK YOU

 minedogucu.com

 bsky.app/profile/minedogucu.com

 www.linkedin.com/in/minedogucu

Model SDS Educators

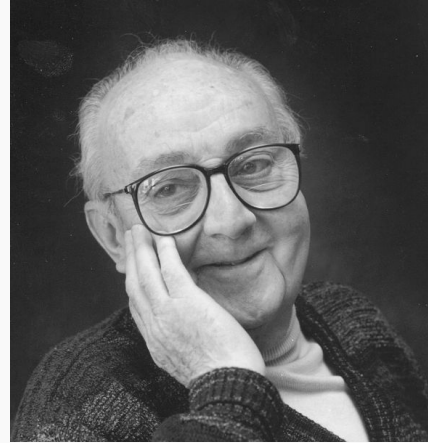
Welcome presentation – USCOTS 25 “Useful Models”
Rachel Saidi, Montgomery College, Maryland



“

All models are wrong, some
models are useful (1976).

—George Box (1919-2013)



<https://commons.wikimedia.org/wiki/File:GeorgeEPBox.jpg>



Useful Models Talk



Welcoming



Inspiring



Thought Provoking



Unique



Relatable



USCOTS2025 Community Data

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
id	Title	Work City	Work Address	Work ZIP	Postal Cc	lat	lon	formatted name	suburb	city	county	state	state_coc	postcode	lat	lon	CAUSE Institution	Primary Affiliator Position	
1																	CAUSE Institution	Research Institution Student	
2																	University of Illinois	Research Institution Student	
3																	Other (not a CAUSE institutional member)	4-year College Faculty	
4																	The Ohio State University	Research Institution Student	
5		Calonsville	456A Kent Ave	21228	39.2805	-76.736	456 A Kent Avenue, Catons	Calonsville		Baltimore	Maryland	MD		21228	39.2805	-76.736	Other (not a CAUSE institutional member)	Research Institution Faculty	
6																	Michigan State University	Research Institution Student	
7																	North Carolina State University	Research Institution Faculty	
8																	Wisconsin Lutheran College	4-year College Faculty	
9																	Other (not a CAUSE institutional member)	4-year College Faculty	
10																	Cal Poly at San Luis Obispo	Research Institution Faculty	
11		Sarasota	6146 Turnbull Park Drive Apt 4104 Apt	34243	27.3907	-82.482	6146 Turnbull Park Drive, S	Sarasota		Manatee	Florida	FL		34243	27.3907	-82.482	Grinnell College	4-year College Faculty	
12																	Other (not a CAUSE institutional member)	4-year College Faculty	
13																	Other (not a CAUSE institutional member)	4-year College Faculty	
14																	Other (not a CAUSE institutional member)	4-year College Faculty	
15																	University of California, Irvine	Research Institution Student	
16																	Other (not a CAUSE institutional member)	Research Institution Faculty	
17																	Other (not a CAUSE institutional member)	4-year College Faculty	
18		Winona	175 West Mark St. PO Box 5838	55987	44.0477	-91.642	Somsen Somsen Hall	Winona		Winona	Minnesota	MN		55987	44.0477	-91.642	Winona State University	4-year College Faculty	
19																	Cal Poly at San Luis Obispo	4-year College Faculty	
20		Pella	1632 Birch Lane	50219	41.4195	-92.841	1632 Birch Lane, Pella, IA 5	Pella		Mahaska	Iowa	IA		50219	41.4195	-92.841	Other (not a CAUSE institutional member)	Research Institution Faculty	
21																	Michigan State University	4-year College Faculty	
22																	Other (not a CAUSE institutional member)	Research Institution Faculty	
23																	Iowa State University	Research Institution Faculty	
24																	Other (not a CAUSE institutional member)	4-year College Faculty	
25																	Other (not a CAUSE institutional member)	Research Institution Student	
26																	Other (not a CAUSE institutional member)	Research Institution Faculty	
27																	Other (not a CAUSE institutional member)	2-year College Faculty	
28																	Johnson County Community College	2-year College Faculty	
29																	Amherst College	4-year College Faculty	
30		Northampton	341 Prospect Street	1060	42.3305	-72.648	341 Prospect Street, North	Northampton		Hampshire	Massachusetts	MA		1060	42.3305	-72.648	Other (not a CAUSE institutional member)	4-year College Faculty	
31		Canterton	15 Prospect St	13617	44.5999	-75.173	15 Prospect Street, Village c	Village of Can		Saint Lawrence	New York	NY		13617	44.5999	-75.173	Saint Lawrence University	4-year College Faculty	
32																	Other (not a CAUSE institutional member)	2-year College Faculty	
33																	Other (not a CAUSE institutional member)	4-year College Faculty	
34																	Cal Poly at San Luis Obispo	4-year College Faculty	
35																	Other (not a CAUSE institutional member)	High School Faculty	
36																	Other (not a CAUSE institutional member)	Exhibitor Other	
37																	The Pennsylvania State University	Research Institution Faculty	
38	Senior Marketing Manager																Other (not a CAUSE institutional member)	Exhibitor Other	
39																	Other (not a CAUSE institutional member)	4-year College Faculty	
40																	Other (not a CAUSE institutional member)	Research Institution Student	
41																	Other (not a CAUSE institutional member)	2-year College Faculty	
42																	The Pennsylvania State University	Research Institution Student	
43		State College	422 Thomas building	16802	40.8007	-77.861	Joab L Thomas Building, U	University Park		Centre	Pennsylvania	PA		16802	40.8007	-77.861	The Pennsylvania State University	4-year College Faculty	
44																	Michigan State University	Research Institution Student	
45																	The Pennsylvania State University	4-year College Other	
46																	Other (not a CAUSE institutional member)	4-year College Faculty	
47		San Luis Obispo	Department of Statistics	93401	40.8004	-77.861	Department of Statistics, Centre	C Pennsylvania		San Luis Obispo	California	CA		93401	40.8004	-77.861	Cal Poly at San Luis Obispo	4-year College Faculty	

CAUSE
Institution:
Other (not a
CAUSE
institutional
member)



USCOTS2025 Community Data

183 / 349

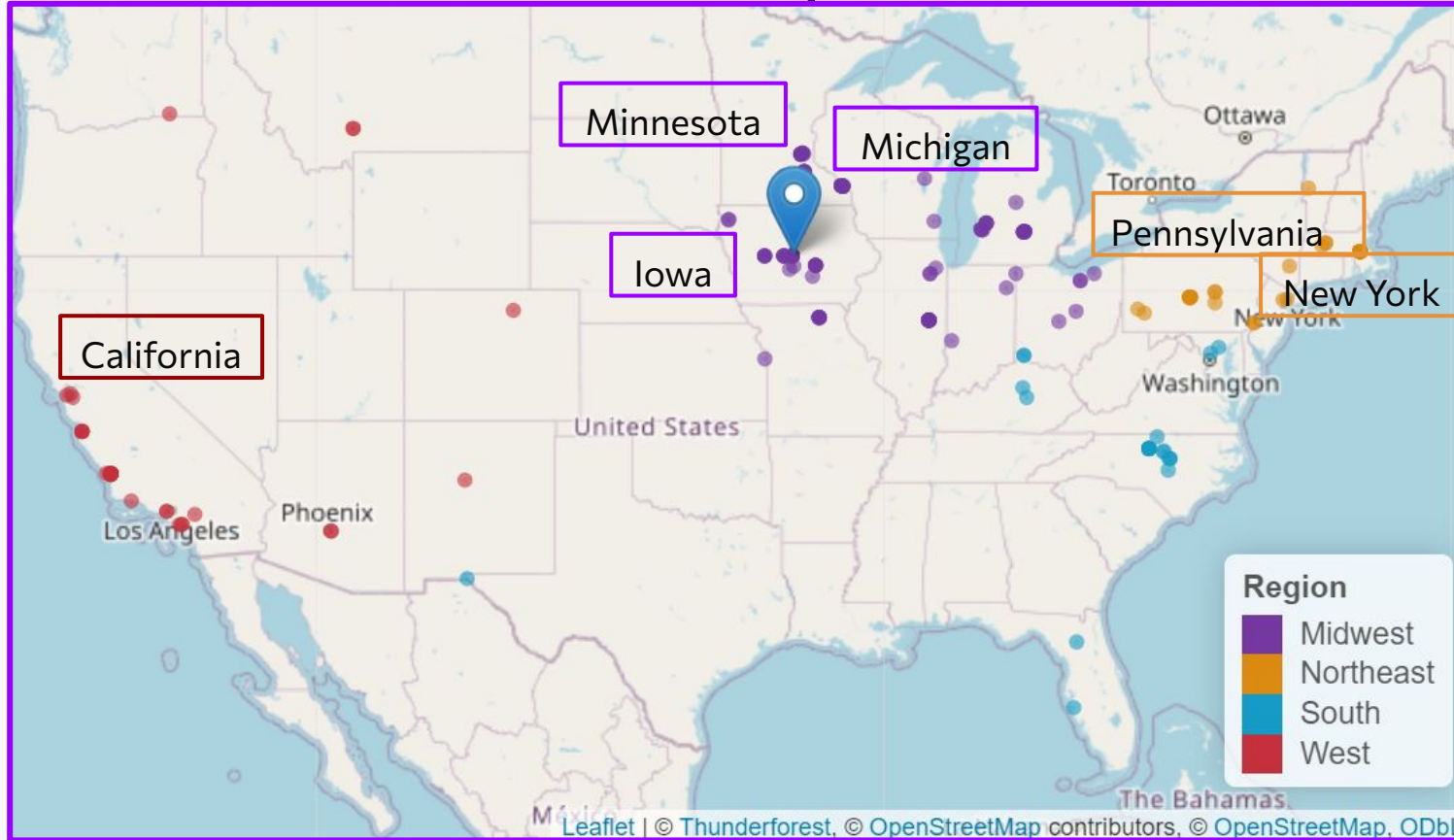
CAUSE Institution: Other (not a
CAUSE institutional member)

	A	B	C	D
1	CAUSE Institution	City	State	n
2	Other (not a CAUSE institutional member)			183
3	Iowa State University	Ames	IA	18
4	Cal Poly at San Luis Obispo	San Luis Obispo	CA	16
5	Michigan State University	East Lansing	MI	14
6	University of Illinois	Urbana-Champaign	IL	12
7	Elon University	Elon	NC	8
8	The Pennsylvania State University	University Park	PA	7
9	University of Minnesota	Minneapolis, Saint Paul	MN	7
10	Saint Lawrence University	Canton	NY	6
11	Grinnell College	Grinnell	IA	5
12	Truman State University	Kirkville	MO	5
13	University of Georgia	Athens	GA	5
14	Winona State University	Winona	MN	5
15	Saint Olaf College	Northfield	MN	4
16	North Carolina State University	Raleigh	NC	3
17	The Ohio State University	Columbus	OH	3
18	Arizona State University	Tempe, Phoenix, Mesa	AZ	2
19	Bucknell University	Lewisburg	PA	2
20	Cleveland State University	Cleveland	OH	2
21	Dordt College	Sioux Center	IA	2
22	Grand Valley State University	Allendale, Grand Rapids	MI	2
23	Gustavus Adolphus College	Saint Peter	MN	2
24	Joliet Junior College	Joliet	IL	2
25	Montana State University	Bozeman	MT	2
26	Northern Kentucky University	Highland Heights	KY	2
27	Oberlin College	Oberlin	OH	2
28	Smith College	Northampton	MA	2
29	UCLA	Los Angeles	CA	2
30	University of California, Irvine	Irvine	CA	2
31	Villanova University	Villanova	PA	2
32	Amherst College	Amherst	MA	1
33	Campbell University College of Pharmacy	Buies Creek	NC	1
34	Capital University	Bexley	OH	1
35	Carleton College	Northfield	MN	1
36	Central Michigan University	Mount Pleasant	MI	1
37	Duke University	Durham	NC	1
38	Eastern Kentucky University	Richmond	KY	1
39	Johnson County Community College	Overland Park	KS	1
40	Kenyon College	Gambier	OH	1
41	Macalester College	Saint Paul	MN	1
42	Mayo Clinic	Rochester	MN	1
43	Moravian University	Bethlehem	PA	1
44	University of California at Riverside	Riverside	CA	1
45	University of California, Santa Barbara	Santa Barbara	CA	1
46	University of Florida	Gainesville	FL	1
47	University of New Mexico	Albuquerque	NM	1
48	University of Northern Colorado	Greeley	CO	1
49	University of Texas at El Paso	El Paso	TX	1
50	Wisconsin Lutheran College	Milwaukee	WI	1

	Faculty	Other	Student
four-year	183	5	30
Other	0	4	0
two-year	7	0	2



Map



THE FUN SCALE

NOT ALL OUTDOOR FUN IS CREATED EQUAL

TYPE I FUN

FUN TO DO
FUN TO REMEMBER



WANT TO KEEP GOING
BACK FOR MORE

TYPE II FUN

HURTS A BIT TO DO
BUT FUN IN RETROSPECT



MOST FULFILLING
IN THE LONG RUN

TYPE III FUN

NOT FUN TO DO
NOT FUN IN RETROSPECT



... BUT MAKES A
GREAT STORY

sketchplanations

The Fun Scale



USCOTS 2025

THE FUN SCALE

NOT ALL OUTDOOR FUN IS CREATED EQUAL

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NOT FUN TO DO
NOT FUN IN RETROSPECT



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GREAT STORY

sketchplanations

The Fun Scale Classification



USCOTS 2025

THE SDS TEACHING CLASSIFICATION

NOT ALL SDS TEACHING IS CREATED EQUAL

TYPE I



FUN TO DO
FUN TO REMEMBER



WANT TO KEEP GOING
BACK FOR MORE

TYPE II



HURTS A BIT TO DO
BUT FUN 'IN RETROSPECT



MOST FULFILLING
IN THE LONG RUN

TYPE III



NOT FUN TO DO
NOT FUN 'IN RETROSPECT



... BUT MAKES A
GREAT STORY

sketchplanations

The Fun Statistics and Data Science (SDS) Teaching Classification



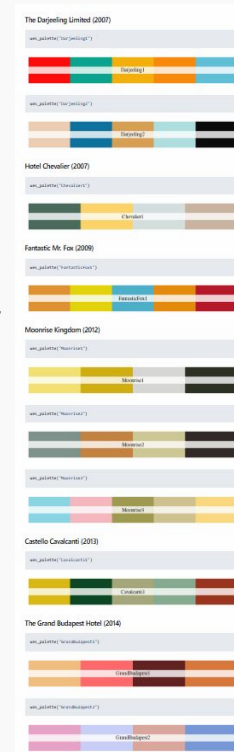
USCOTS 2025

Type 1

Fun to do, fun to remember

Want to keep going back for more...

- ❑ Update / learn new SDS techniques – visualize, model, render, publish, color (Wes Anderson and Metbrewer palettes)

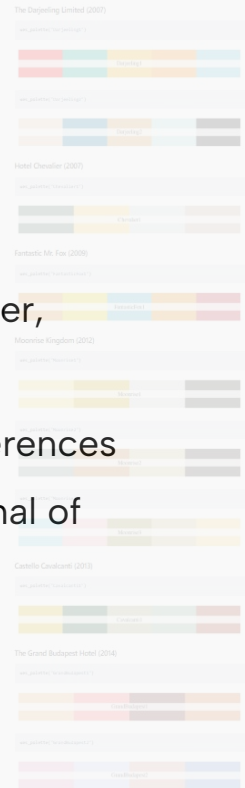


Type 1

Fun to do, fun to remember

Want to keep going back for more...

- ❑ Update / learn new SDS techniques – visualize, model, render, publish, color (Wes Anderson and Metbrewer palettes)
- ❑ Collaborate with colleagues and attend webinars and conferences
- ❑ Ingest Journals: Significance Magazine, Amstat News, Journal of SDS Ed, Scatterplot Journal (MAA), etc.
- ❑ Mentor incredibly talented, driven students (and faculty)
- ❑ Navigate AI





Type 2

Hurts a bit to do, but fun in retrospect

Most fulfilling in the long run ...

- ❑ ***Present a 5-minute welcome for the USCOTS***





Type 2

Hurts a bit to do, but fun in retrospect

Most fulfilling in the long run ...

- ❑ ***Present a 5-minute welcome for the USCOTS***
- ❑ Host the DataFest for Two Year College event each year





Type 2

Hurts a bit to do, but fun in retrospect

Most fulfilling in the long run ...


- ❑ ***Present a 5-minute welcome for the USCOTS***
- ❑ Host the DataFest for Two Year College event each year
- ❑ Submit articles for publication and grant proposals
- ❑ Navigate AI



Type 3

Not fun to do, not fun in retrospect

But makes a great story (sometimes) ...

- ❑ Read rejection email about grant proposals
 - ❑ (Or) crickets about the decision 
- ❑ Navigate the new SDS employment landscape
- ❑ Navigate AI



Enjoy the conference!

Gain some **type 1 and 2**
knowledge and experiences



Thanks!

rachel.saidi@montgomerycollege.edu

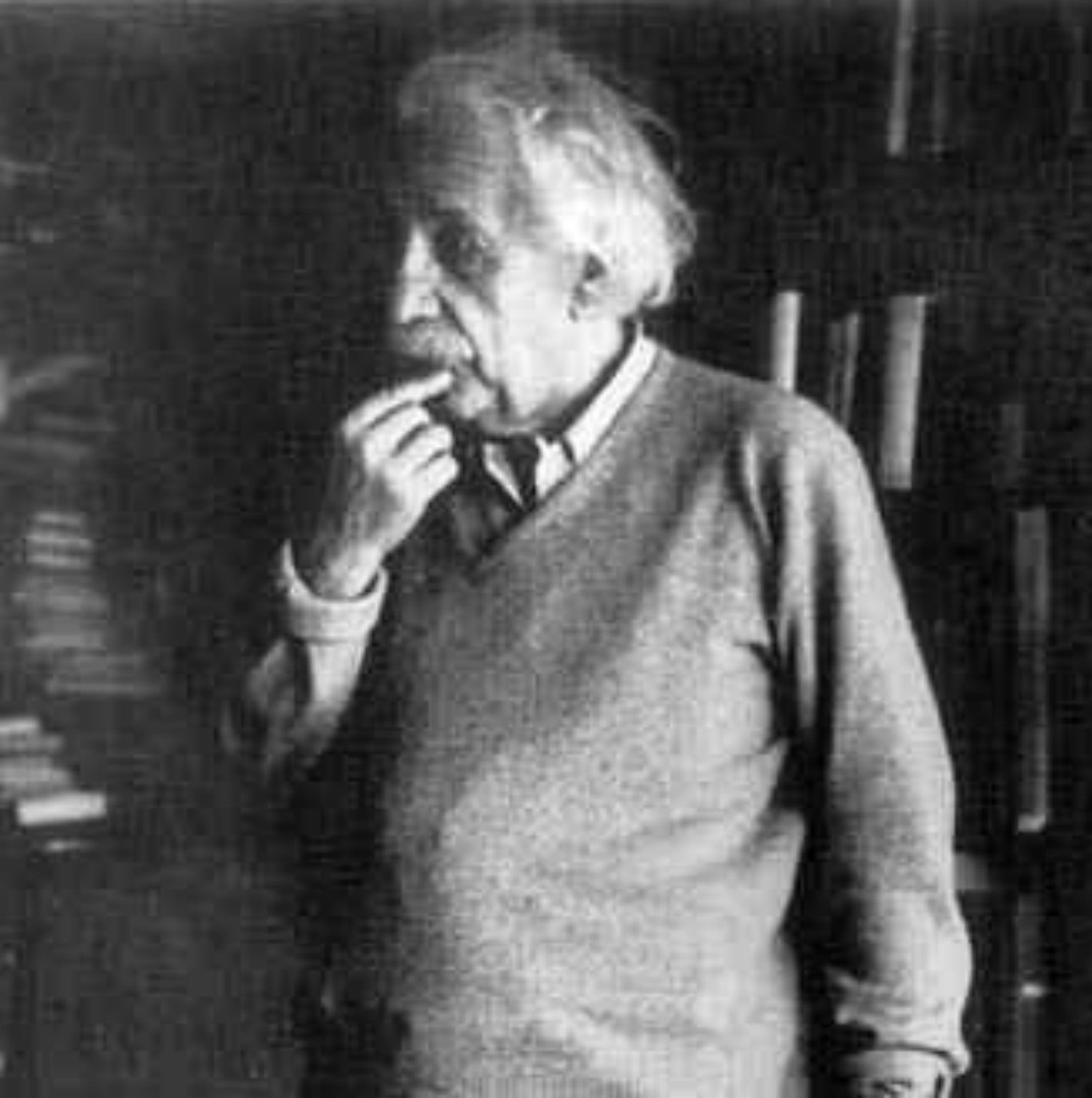
github.com/rjsaidi

[linkedIn](#)

Credits: This presentation template was created by
Slidesgo, and includes icons, infographics & images
by **Freepik**



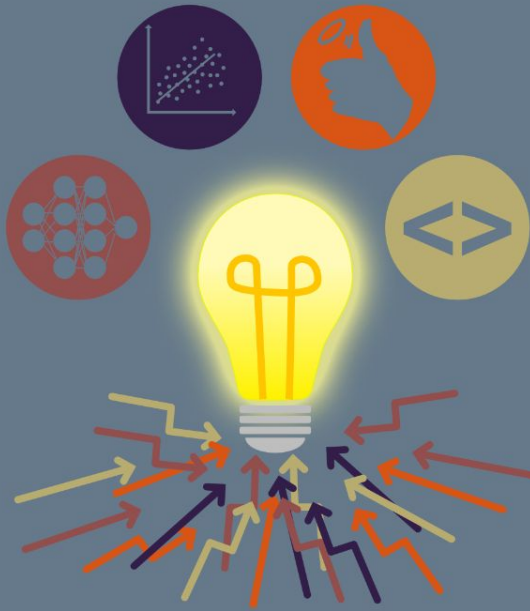








Useful Models



What else is happening
at USCOTS 2025?

A Big Thanks to our Sponsors

Minitab  

 **ALEKS**® ASA   **macmillan**
learning

 **jmp** STATISTICAL
DISCOVERY  **sas** **WILEY**

**IOWA STATE
UNIVERSITY**

 **PennState**
Eberly College of Science

 **CAUSE**

Stop by the **exhibitor tables** in Memorial Union.

Attend one of the remaining **exhibitor sessions**:

- Fri, 11:05 am: Solving Real-World Problems using the Minitab Solution Center (Gerdin 2464)
- Fri, 11:05 am: The New Face of SAS: Our Latest Platforms for Teaching and Learning (Gerdin 0330)
- Fri, 4:15 pm: Get Hands-On with the Free, Full-Featured JMP Student Edition (Gerdin 0129)
- Fri, 5:00 pm: Meet in the Middle: Leveraging AI to Support Personalized Learning (Macmillan) (Gerdin 0129)
- Sat, 11:00 am: Curious about the future of Intro Data Science and Statistics publisher resources? (Pearson) (Gerdin 2127)

Keynotes (Memorial Union Ballroom)



Fri 8:30 am:

*Teaching about models:
A unifying topic?*

Beth Chance



Fri 1:30 pm:

*A no bullshit guide to
programming with LLMs in
R*

Hadley Wickham



Sat 8:30 am:

*Students' "attention is all
you need" to transform
complexity to clarity*

Prince Afriyie



Sat 1:15 pm:

*Be effective; don't be
significant*

Jeff Witmer

Breakout Sessions



Fri 9:45 am:

Choose one of **ten** different sessions!



Fri 2:45 pm:

Choose one of **ten** different sessions!



Sat 9:45 am:

Choose one of **eight** different sessions!



Sat 2:30 pm:

Choose one of **seven** different sessions!

Posters and Beyond (MU Ballroom and Campanile)



Fri 11:15 am:

Come engage with **32** presenters!



Sat 11 am:

Come engage with **33** presenters!

Banquet + Awards (Memorial Union Ballroom)



6:30 pm:

Dinner Buffet



7:15 pm:

Banquet Presentation:
*Charting the course: Data
science in K-12?*

Zarek Drozda



7:45 pm:

A-Mu-Sing Winners

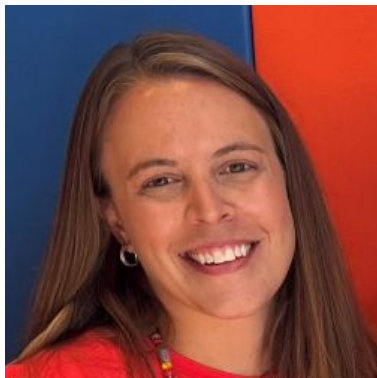
Recognition of awards
for the CAUSE
Community



8:05 pm:

George Cobb Lifetime
Achievement Award in
Statistics Education

Closing Session (Memorial Union Ballroom)



Sat 4:00 pm:

5 minute talks reflecting on the conference and the theme of “Useful Models”

How can I **connect** with other
statistics and data science
educators at USCOTS?

Lunch + Birds-of-a-Feather Discussions (MU Great Hall)



Fri noon: Lunch buffet

19 Birds-of-a-feather tables

Plenty of non-themed tables too!

(Pictured: Gouldian finches)



Sat noon: Lunch buffet

14 Birds-of-a-feather tables

Plenty of non-themed tables too!

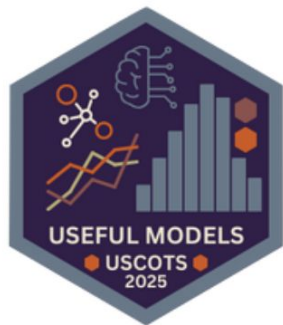
(Pictured: Screech owls)

Explore Iowa State!

- Lake LaVerne (nice place for a walk) Across Morrill Rd from MU
If you are lucky, you may find the swan couple, Lancelot and Elaine!
- Cafés and restaurants (Campus Town) Across Lincoln Way from MU
- ISU Creamery (Food Science Building, RM 2955) 0.3 miles from MU
- Reiman Gardens (Botanical garden) 1.4 miles from MU
- Chocolaterie Stam (Old Town) 2 miles from MU

CyRide is local public bus. Regular fare is \$1

Scavenger Hunt



USCOTS Scavenger Hunt

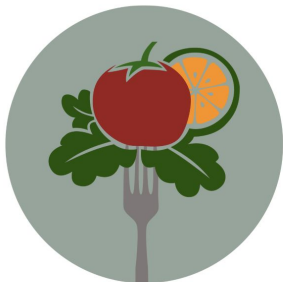


Work on your own or in pairs and complete the 2025 USCOTS scavenger hunt!
Make a copy of the document at <https://tinyurl.com/uscots2025scavenger> or using the QR code above.

Complete the 16 items and be entered to win a prize!

Deadline: Saturday, July 19th at 12:00 pm. Winner announced at lunch.

Other Ways to Connect



- Meals and snack times are great for networking.
- Snacks in **Memorial Union**:
 - Right after breakout sessions:
 - Fri & Sat: 11:00 - 11:15 am
 - Fri 2:30 - 2:45 pm
 - Sat 2:15 - 2:30 pm
- Meals baked into the program:
 - Fri & Sat 7:30 am: Continental Breakfast
 - Fri 12:30 pm: Lunch
 - Fri 6:30 pm: Banquet
 - Sat 12:15 pm: Lunch



Please join the discussion on the **#uscots2025** channel within the CAUSE Slack Workspace.



On Fri & Sat, use the physical USCOTS bulletin board in the MU Ballroom.

Logistics

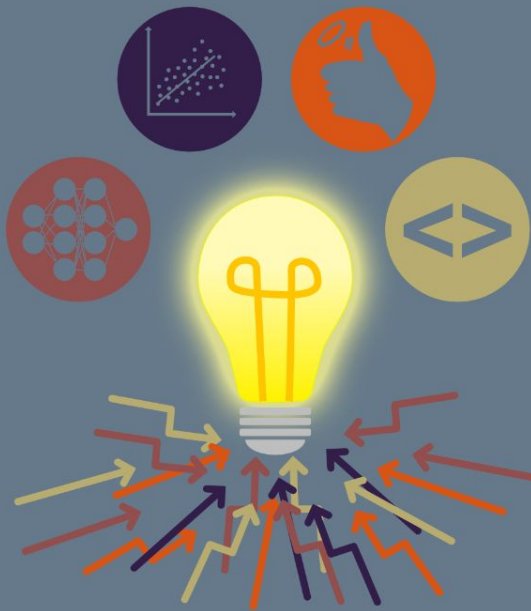
Logistics Highlights

- Space:
 - Memorial Union: Keynotes, posters
 - Gerdin: All but one Breakout session
- Dorms:
 - Quiet hours start at 11pm
- ISU Creamery:
 - 12-5pm in Food Sciences Building
- Bulletin Board:
 - Great Hall Poster Wall
 - Connect with others, schedule meetings, offer/ask for ride shares
- Shuttles:
 - Shuttles to hotels run once every ~20 at the scheduled times.
 - If you scheduled a Saturday/Sunday shuttle and plan to cancel it, please cross your name off of the list posted at the bulletin board.

THANK YOU!

- ISU Department of Statistics.
- Graduate Student Shuttle Drivers:
 - Cat, Sarah, Payton
- Other ISU Faculty, Students, and Staff
 - Alan, Anna 1, Anna 2, Amy, Ben, Dan, Debarshi, Kathy, Ulrike, Wes
- Special Thanks to our wonderful vendors!
 - All of the vendor items need to be put away in another room overnight. We would love some volunteers to help us move those items after we are done.

Useful Models



Have a great conference!