

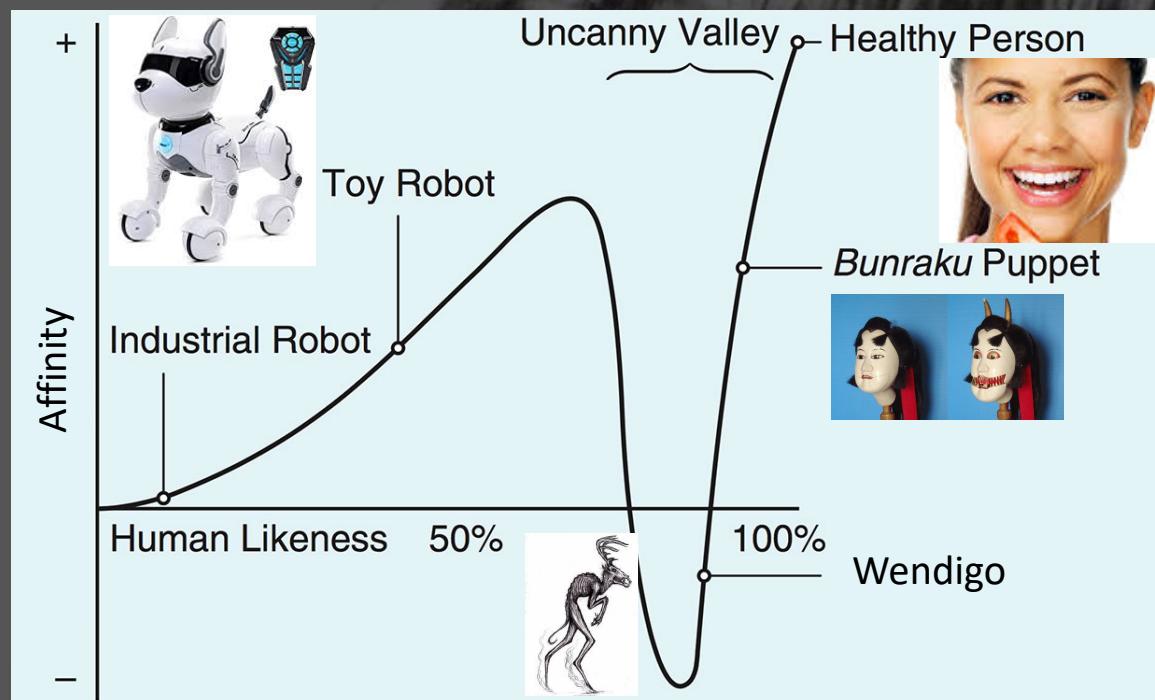
Mapping the Uncanny Valley

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September 21, 2020

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What is the Uncanny Valley in Text?



“Tonight, you may see some people who aren’t alive anymore”

“That’s Not My Mother”

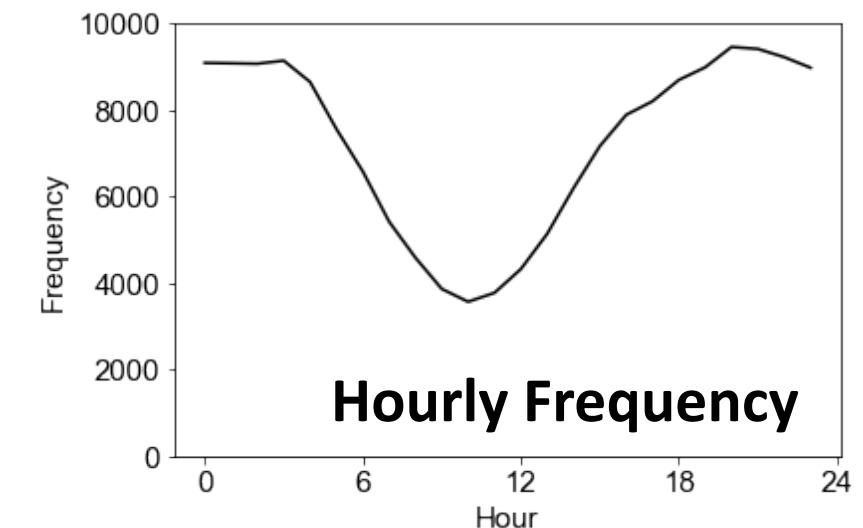
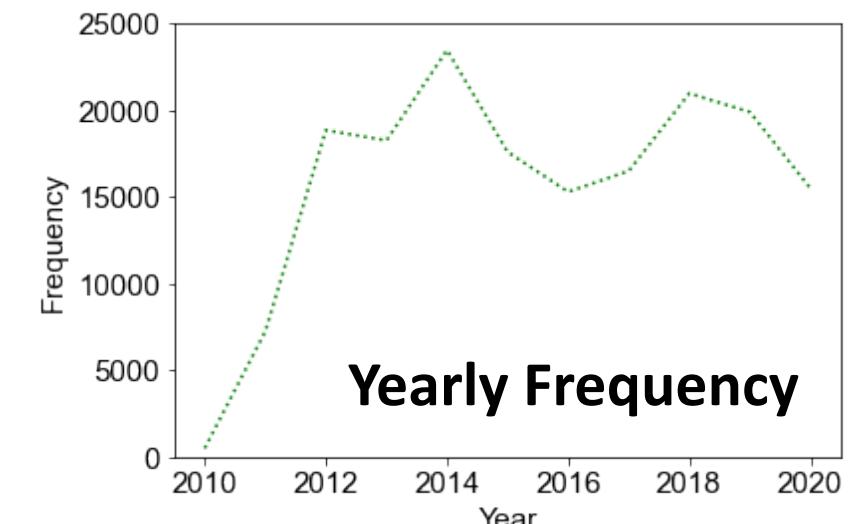
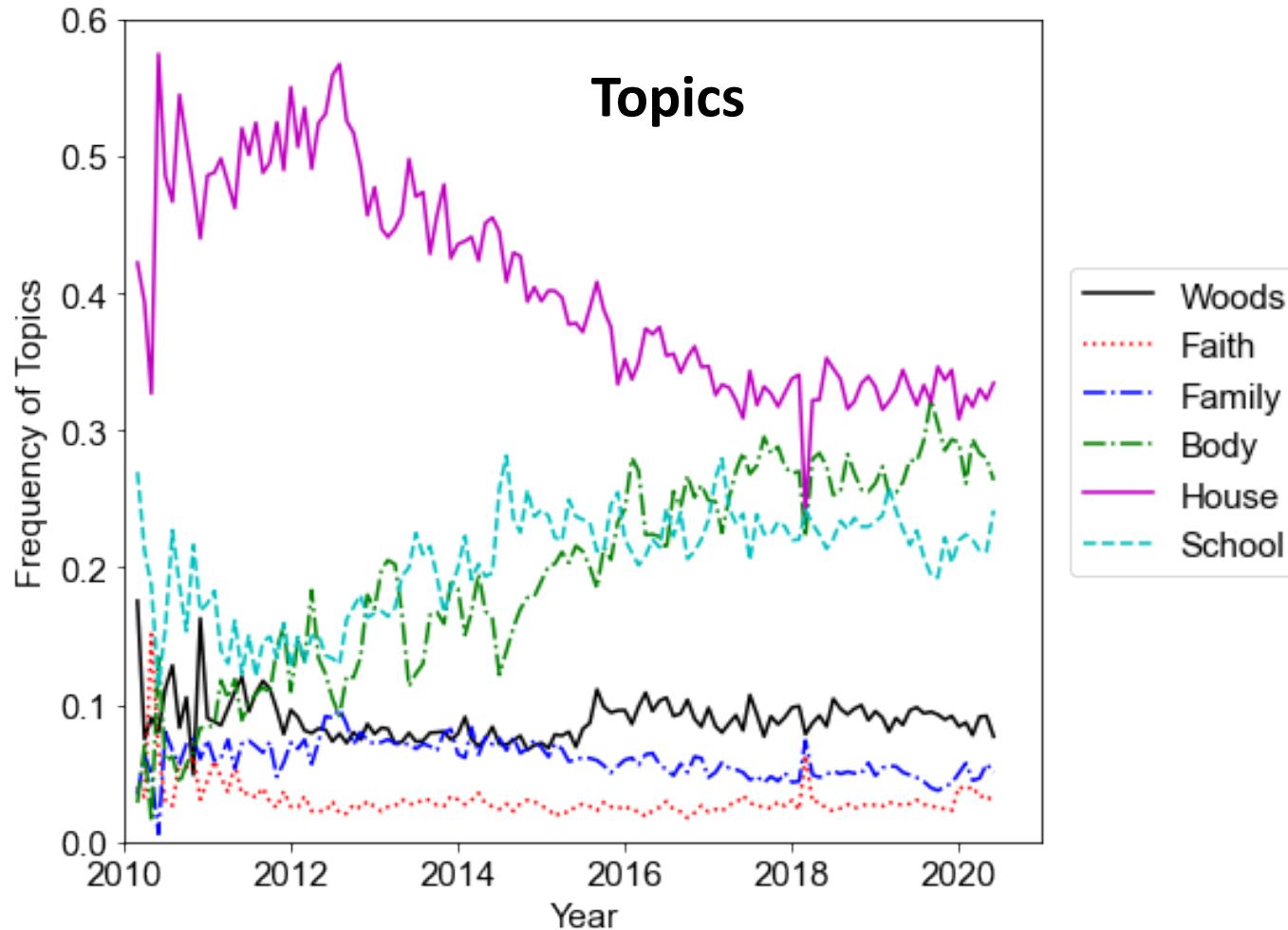
“As the ballerina stopped her dance
the room seemed to grow even darker...”

- “Nearly-human” creatures persist in stories across cultures
 - Why are creepy stories filled with almost-human ghosts, zombies, and cryptids?
 - Do popular stories reach a creepy “sweet spot” in which creatures or scenarios are nearly-normal but not quite?
- Goal: help answer what makes text creepy
 - Learn and apply skills of *natural language processing*
 - Learn what to avoid for AI design and human-computer interaction
 - Understand the psychology of humans: why are creatures or scenarios scary?
- Skills needed: Python, interest in NLP

Reddit Data: <https://tinyurl.com/y5dyh8sw>

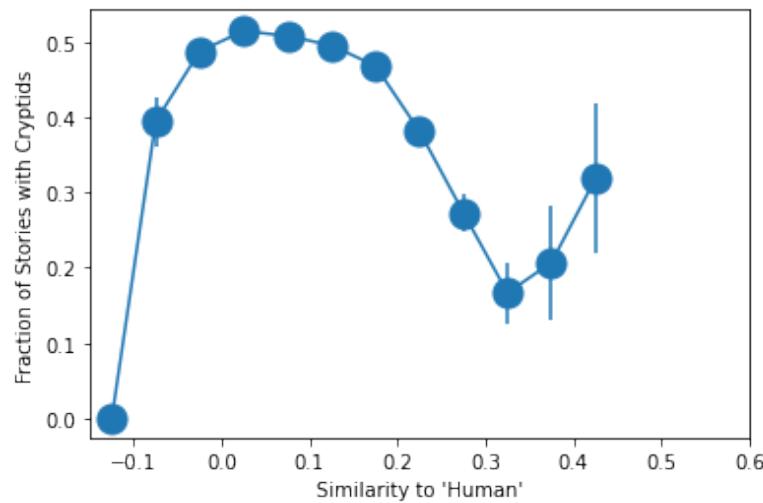
- 11 GB of data
- 9 Subreddits
- Over 10 years of data
- Mostly English & one small Spanish subreddit
- Comments & Posts (authors, text, score, ...)
- Creepy subreddits:
 - NoSleep, CreepyPasta, Miedo...
- Normal text subreddits:
 - Confessions, confession (two different sites!), TIFU,...

Data Trends: NoSleep

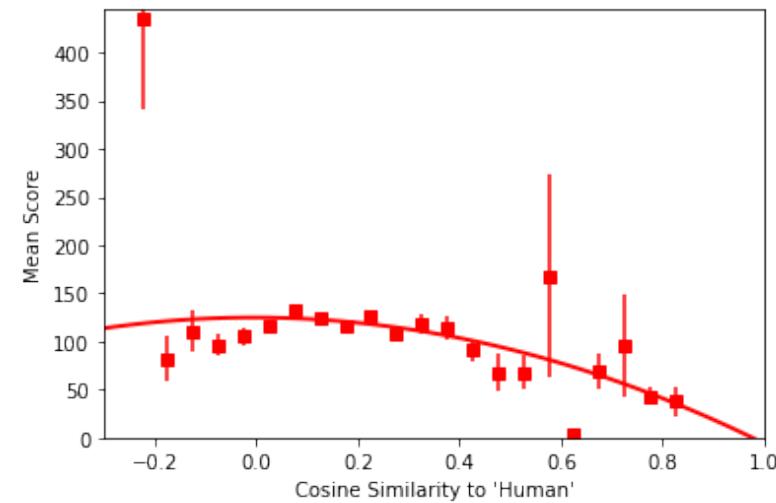


NoSleep

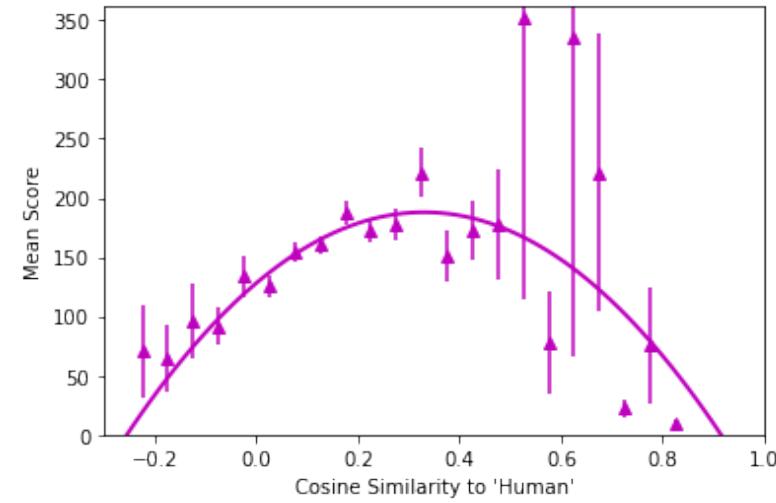
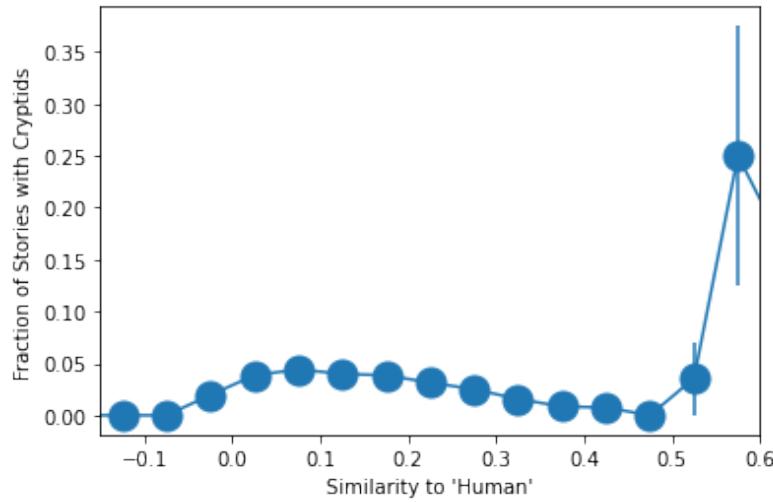
Fraction with Cryptids



Score of Stories



TIFU



Semester Ideas

- Broad goal: **can we uncover evidence of the uncanny valley?**
- Psychology of creepiness: does this appear in text?
 - **On the nature of creepiness:** 1341 survey respondents
 - Males are more creepy than females
 - Females see creepy people as a sexual threat
 - Creepy = unpredictable
 - Some occupations are more creepy
 - **Interactions with Robots:** 141 survey respondents
 - "...height, bulk, and bipedal form adding to or subtracting from human-likeness and contributing to the perceived threat or likability of robots"
- A sentiment tool for "creepy" text
 - "Text X has a creepiness score of 0.6 and text Y has a creepiness score of 0.2"
- Easy way to make unsettling text, e.g., with GAN?

Some things to keep in mind

- How should we define creepiness?
 - “human-like” robots?
 - Ghosts?
 - Weird guy who keeps staring at you?
- Different dimensions to “creepiness”
 - Or is there some unifying notion, a key dimension?
- Most promise: focus on human-computer interaction
 - Perhaps explore subset of text with themes like “human-like”, “robot”, “computer”,...?

One word of caution

- Just remember “creepy” is by its very nature something that **can make you feel uncomfortable**
- If you ever feel overwhelmed, stressed by the research, or need a break, I will always understand
- The goal is always to have fun!
- Always feel free to email me at keithab@isi.edu

What are your thoughts?

- **What creeps you out?**
- What are your ideas of what we mean by creepiness?
- What do you want to explore?
 - What is your research experience?
 - What research topics interest you?