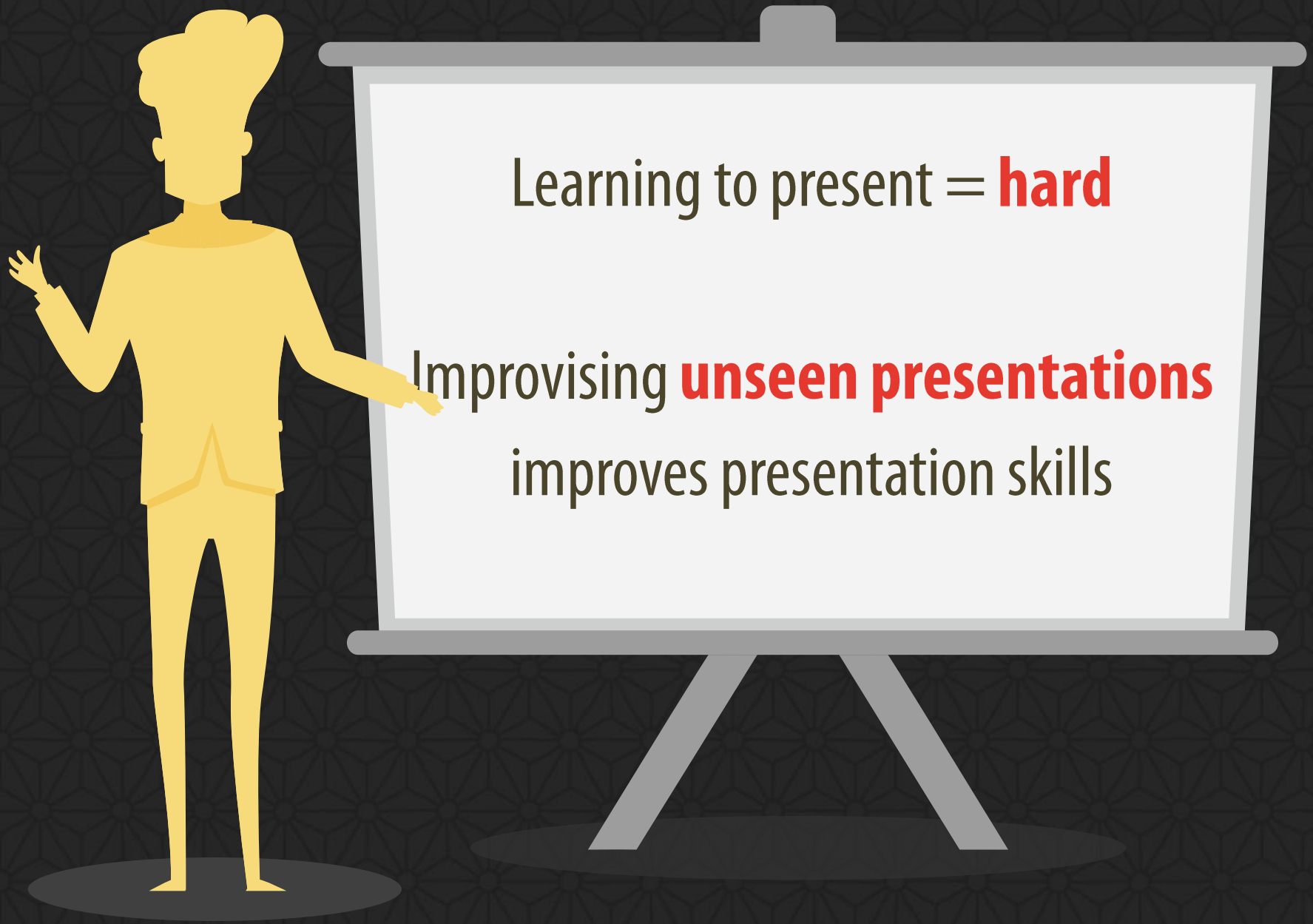
AUTOMATICALLY GENERATING ENGAGING PRESENTATION SLIDE DECKS

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Kory W. Mathewson
U. Alberta, Canada
@kory_math

CONTEXT



Learning to present = **hard**

Improvising **unseen presentations**

improves presentation skills

MOTIVATION

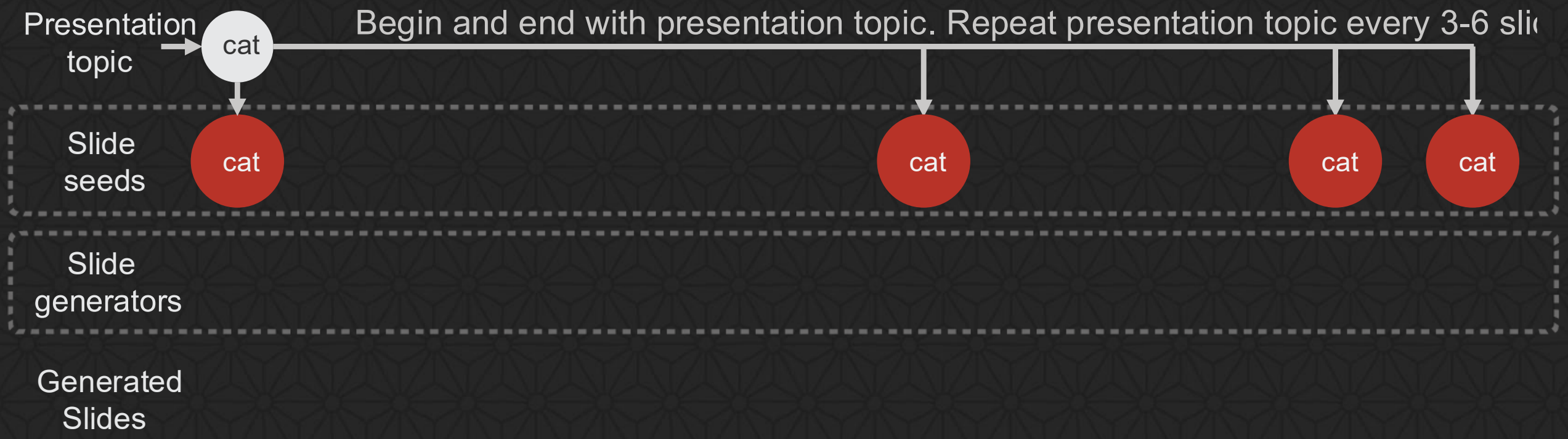


NEED: Coherent, balanced, funny **slide decks** to perform this improv theater game

USUALLY: Large human **effort**
Hard to learn good **guidelines**
Unrelated to audience suggestion

SOLUTION: **Automatic** slide deck generation using **audience suggestion** as input

TEDRIC


Presentation topic
cat
Begin and end with presentation topic. Repeat presentation topic every 3-6 sli
Slide seeds
cat
cat
cat
cat
Slide generators
Generated Slides

SLIDE SEED GENERATOR

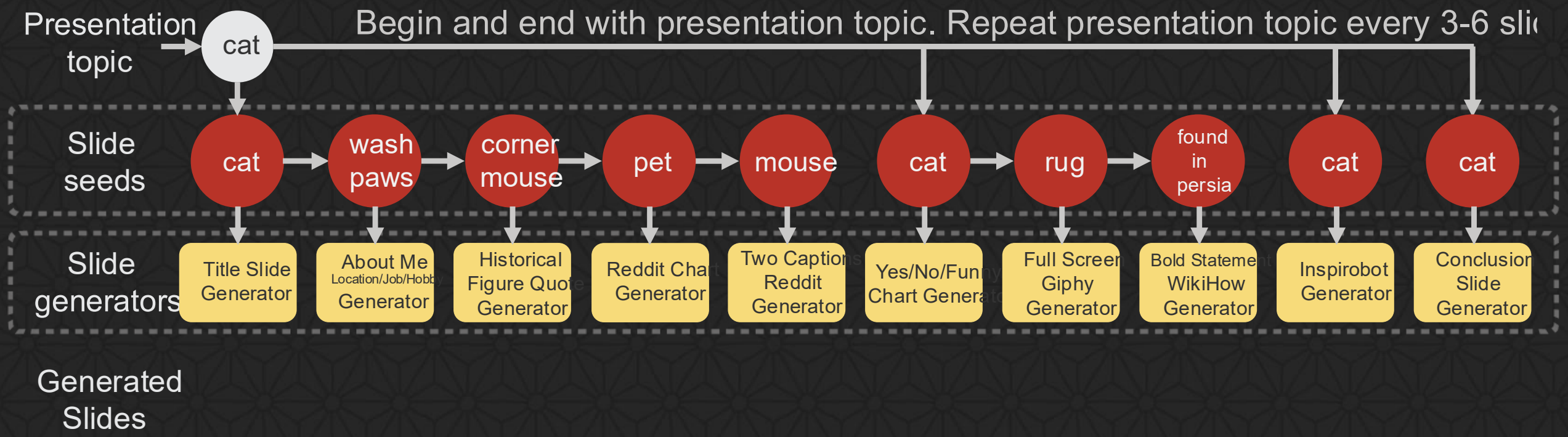
ConceptNet

Common Sense Knowledge Graph



Slide 1	cat
Slide 2	? wash paws
Slide 3	? corner mouse
Slide 4	? pet
Slide 5	? mouse
Slide 6	cat
Slide 7	? rug
Slide 8	? found in persia
Slide 9	cat
Slide 10	cat

TEDRIC



Generated Slides

PRESENTATION SCHEMA

SLIDE GENERATORS:



CONSTRAINTS:

Limit number of similar generators *(absolute or relative)*

SLIDE GENERATORS

[Historical Title Generator]
(Tracery + WikiHow)

[Vintage Person Generator]
(Reddit)

[Quote Generator]
(GoodReads)

[Name Generator]
(Tracery)

corner
mouse

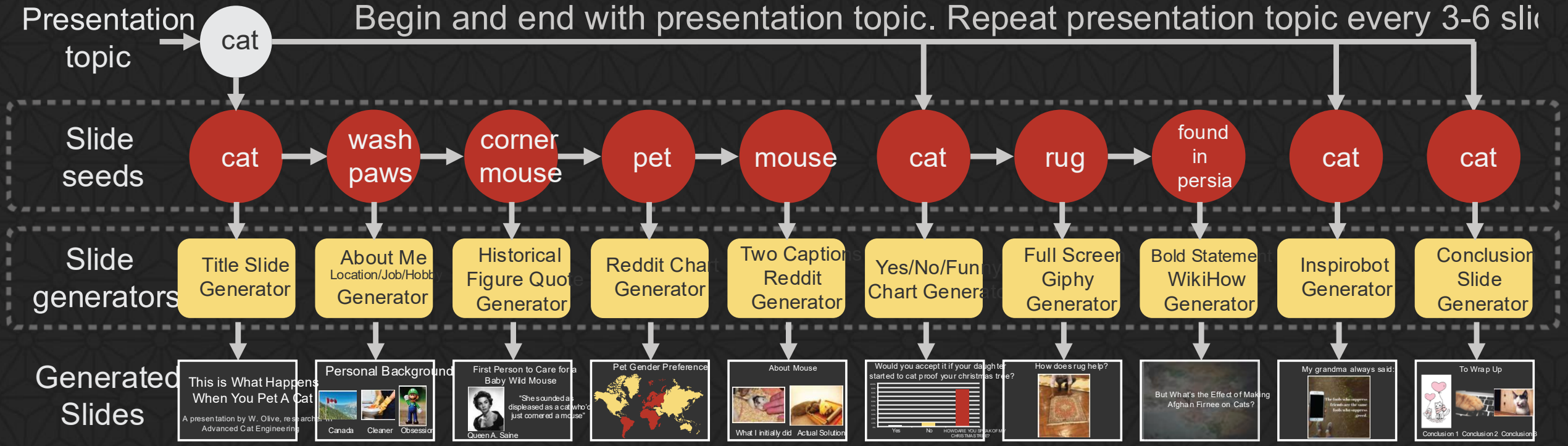
First Person to Care for Baby Wild Mouse



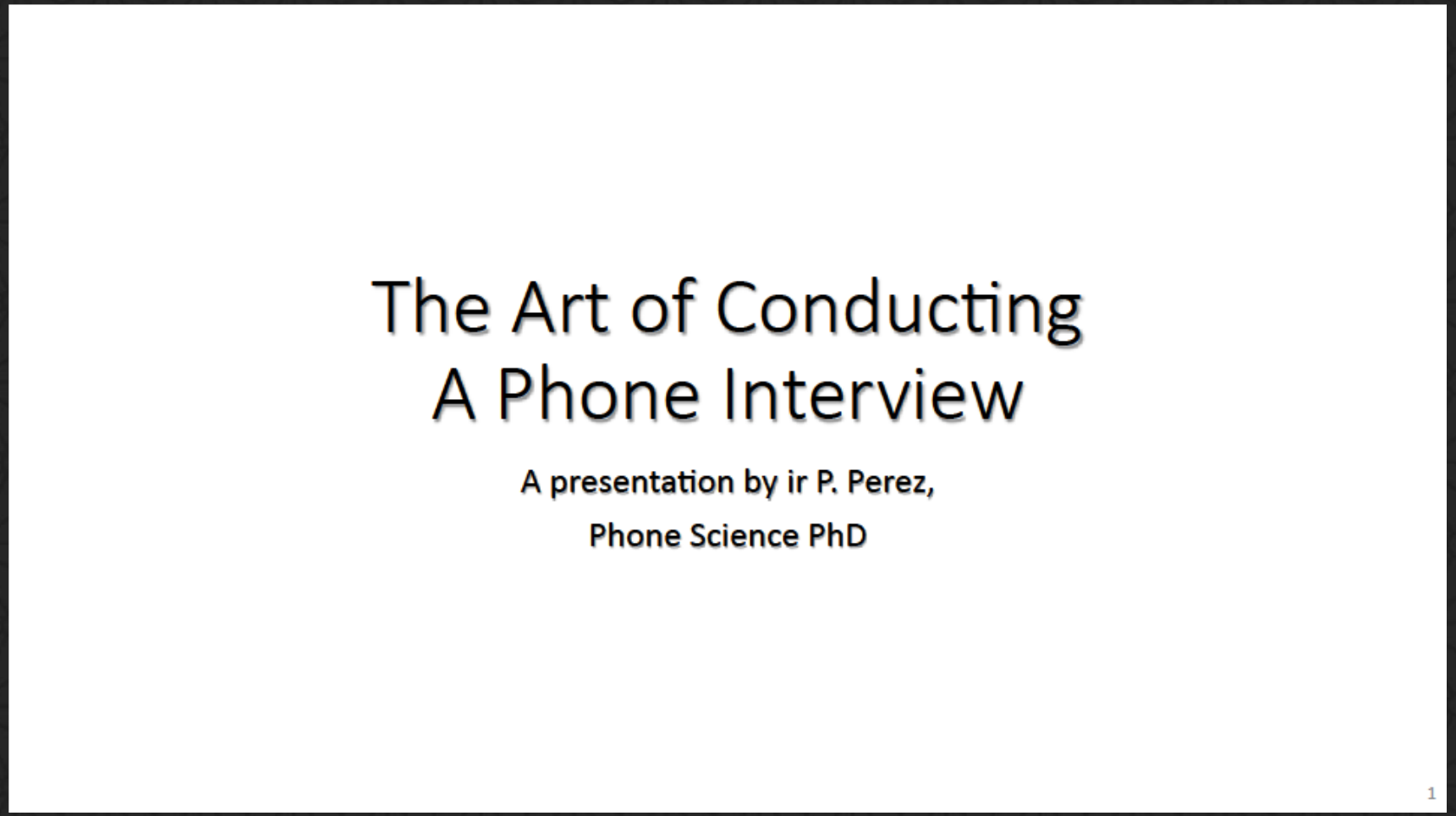
"She sounded as displeased as a cat w just cornered a mou

Queen A. Saine

TEDRIC


Presentation topic
cat
Begin and end with presentation topic. Repeat presentation topic every 3-6 sli
Slide seeds
cat
wash paws
corner mouse
pet
mouse
cat
rug
found in persia
cat
cat
Slide generators
Title Slide Generator
About Me Location/Job/Hobby Generator
Historical Figure Quote Generator
Reddit Chart Generator
Two Caption Reddit Generator
Yes/No/Funny Chart Generator
Full Screen Giphy Generator
Bold Statement WikiHow Generator
Inspirobot Generator
Conclusion Slide Generator
Generated Slides
This is What Happens When You Pet A Cat
A presentation by W. Olive, researcher, IVI Advanced Cat Engineering
Personal Background
Canada
Cleaner
Obsession
First Person to Care for a Baby Wild Mouse
"She sounded as displeased as a cat who'd just cornered a mouse"
Queen A. Saine
Pet Gender Preference
About Mouse
What I initially did
Actual Solution
Would you accept it if your daughter started to cat proof your christmas tree?
Yes
No
HOWDARE YOU SPEAK OF MY CHRISTMAS TREE?
How does rug help?
But What's the Effect of Making Afghan Firnee on Cats?
My grandma always said:
To Wrap Up
Conclusion 1
Conclusion 2
Conclusion 3

EXAMPLE OUTPUT



Online demo: shaun.lol *(by Shaun Farrugia)*
Code: https://github.com/korymath/talk-generator

EXAMPLE OUTPUT

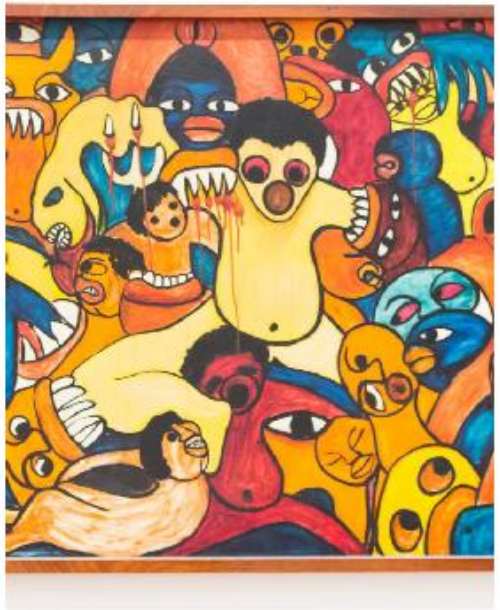
Personal background



Canada



Job: Hairdresser



Passion

1

Online demo: shaun.lol *(by Shaun Farrugia)*
Code: https://github.com/korymath/talk-generator

EXAMPLE OUTPUT

First Person to Start a Manual Car



Sir Sherman Grass

"Anyone who thinks sitting in church can make you a Christian must also think that sitting in a garage can make you a car."

(original quote by Garrison Keillor)

1

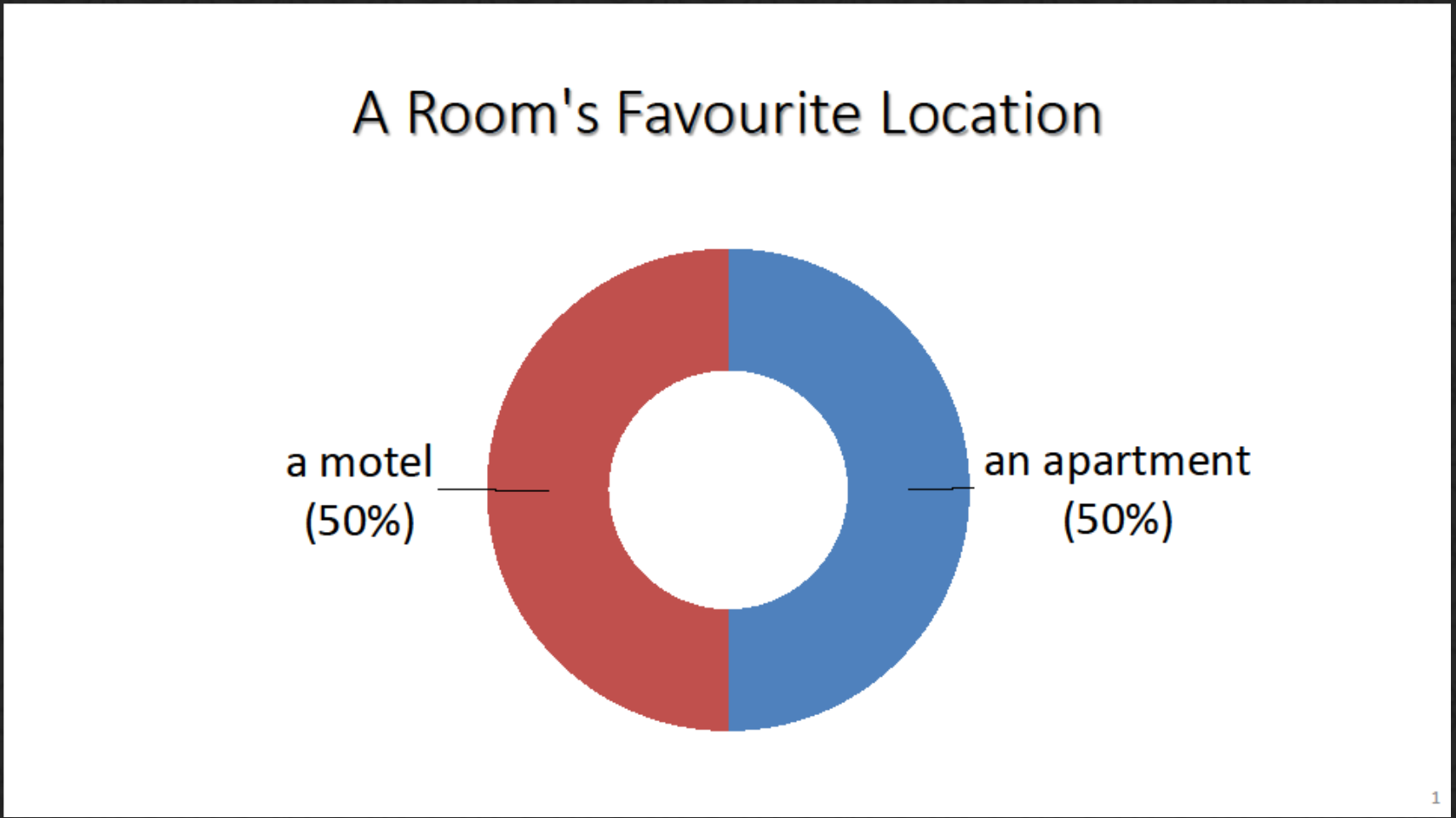
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EXAMPLE OUTPUT



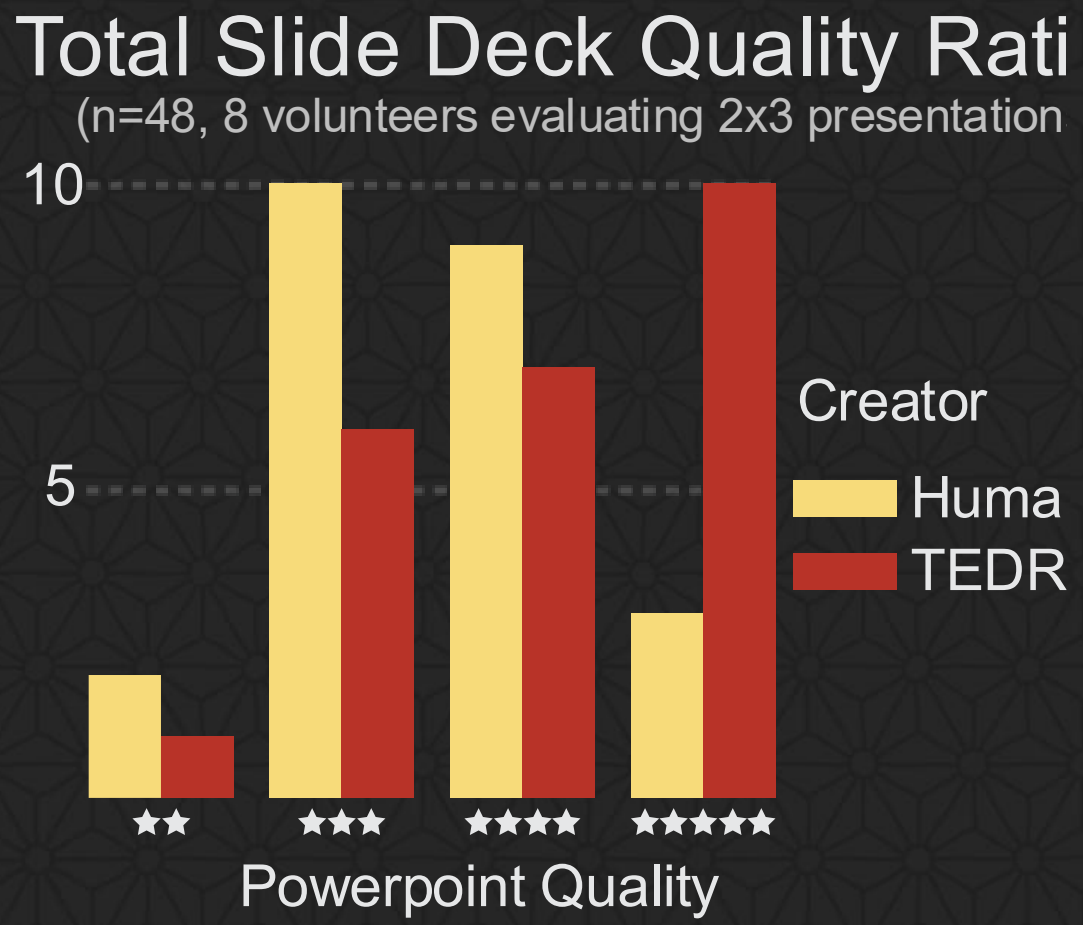
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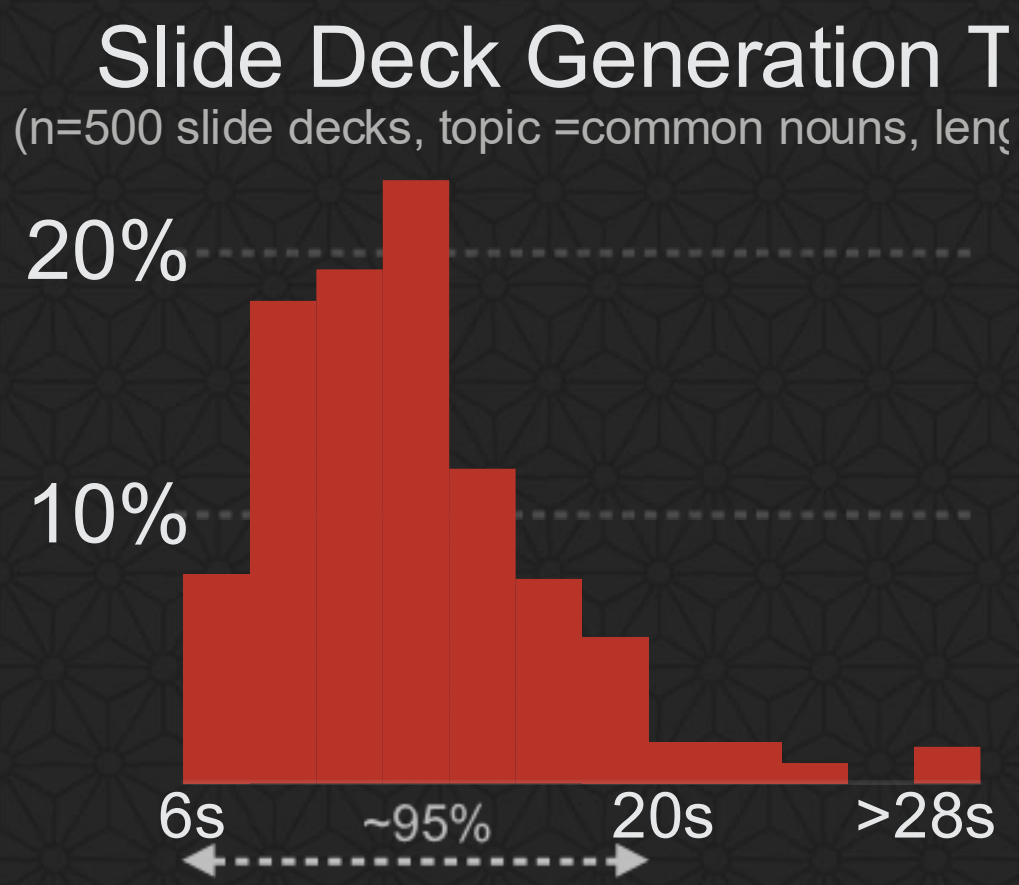
EXAMPLE OUTPUT



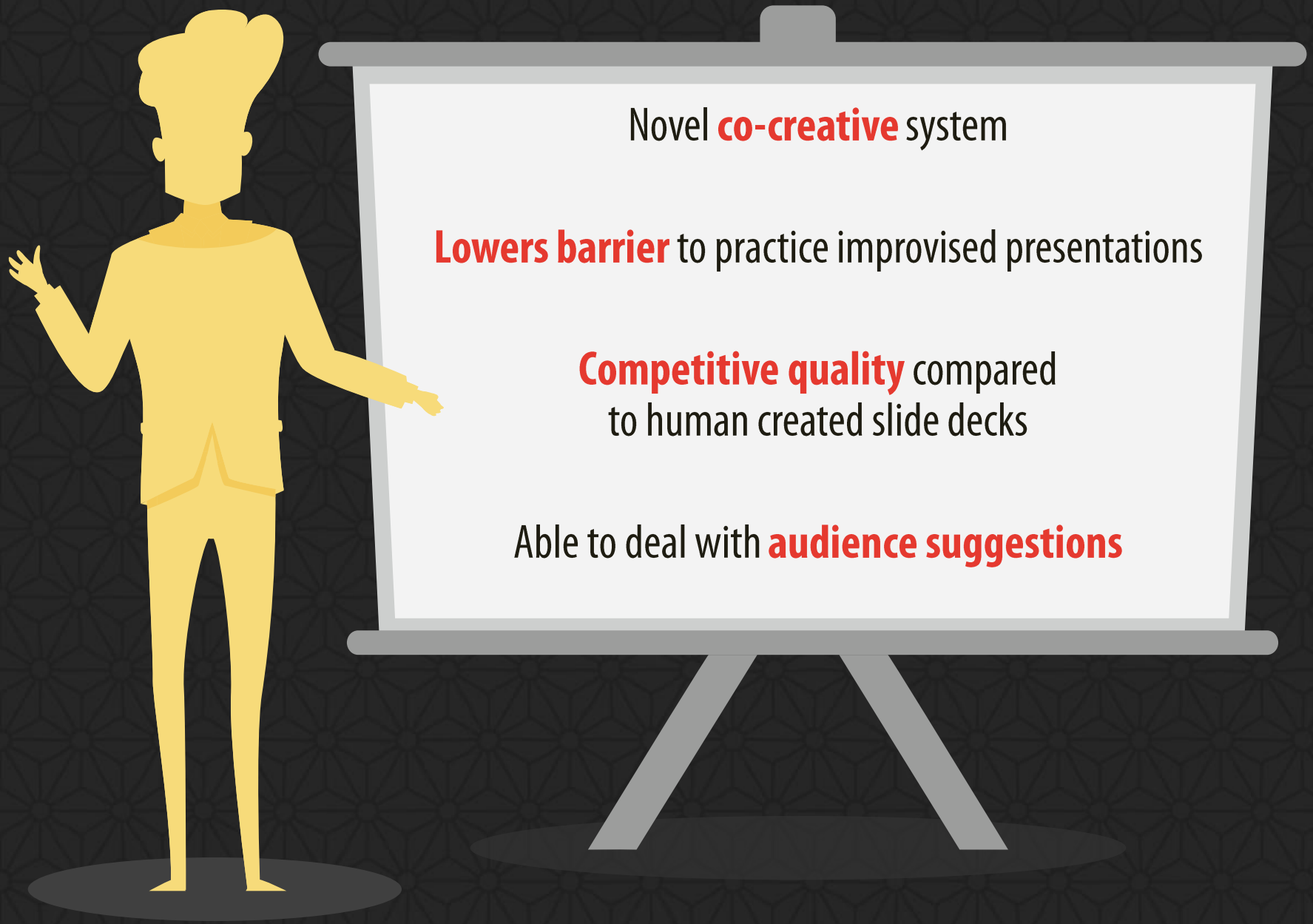
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Code: https://github.com/korymath/talk-generator

EVALUATION


Total Slide Deck Quality Rati
(n=48, 8 volunteers evaluating 2x3 presentation
10
5
Creator
Huma
TEDR
★★
★★★
★★★★
★★★★★
Powerpoint Quality


Slide Deck Generation T
(n=500 slide decks, topic =common nouns, leng
20%
10%
6s
~95%
20s
>28s

CONCLUSION



Novel **co-creative** system

Lowers barrier to practice improvised presentations

Competitive quality compared
to human created slide decks

Able to deal with **audience suggestions**