



Sarcasm-as-a-Service

5 years later, the powers still out

Meet Rory



- Not related to **Tyrion Lannister**
- Don't do **kids** parties

@rorypreddy

Claudia



54 years old social worker

Sight impaired (partially sighted)

Uses a screen magnifier and
changes colours to increase
contrast.

Chromebook Help

You're lost, go back to the bar left to
orientate yourself!

Ashleigh



24 years old arts graduate and
administrative assistant

Severely sight impaired (blind)

Uses a screen reader

Chromebook help

Screen reader quick guide:
Use Tab to move from links and form
elements to the next. Shift + Tab to go
back. Search + Arrow Right/Left to read
text in between those.

Ron



82 years old, retired

Multiple conditions: arthritis,
losing his hearing, cataracts, hip
replacements

Doesn't use any assistive
technology

Chromebook help

As Ron is not very technical, don't use
anything which might help. For example,
don't zoom into the page and don't use the
keyboard to navigate.



GLOBAL ACCESSIBILITY AWARENESS DAY

Do you know what accessibility means? Come find out as we talk, think and learn about accessibility and inclusion.

Don't miss the discussion with the Business Operations leaders and a guest speaker! This session is important for all, as we are all impacted.

Date: 16 MAY 2022

Time: 11:30 AM - 12:30 PM CEST

Zoom Details: [Click on link](#) / Passcode: GAAD2022!



Embracing
Disability



...of
course..

Sarcasm?



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Computer Based Annual Social Media Analytics Subscription

Solicitation Number: HSSS01-14-Q-0182

Agency: Department of Homeland Security

Office: United States Secret Service

Location: Procurement Division

sarcas



About...

Found 3 matches

sarcastic
sarcastically
sarcasm

16
5
2
15
4
3

sarcasm 2 3

sarcasm has 0 outdegree

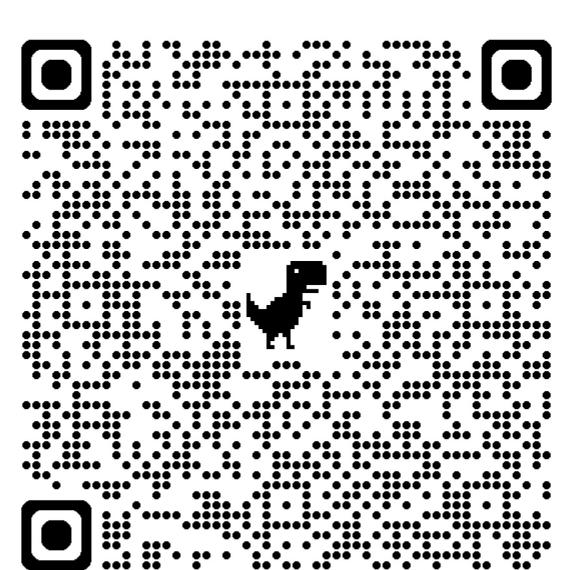
sarcasm

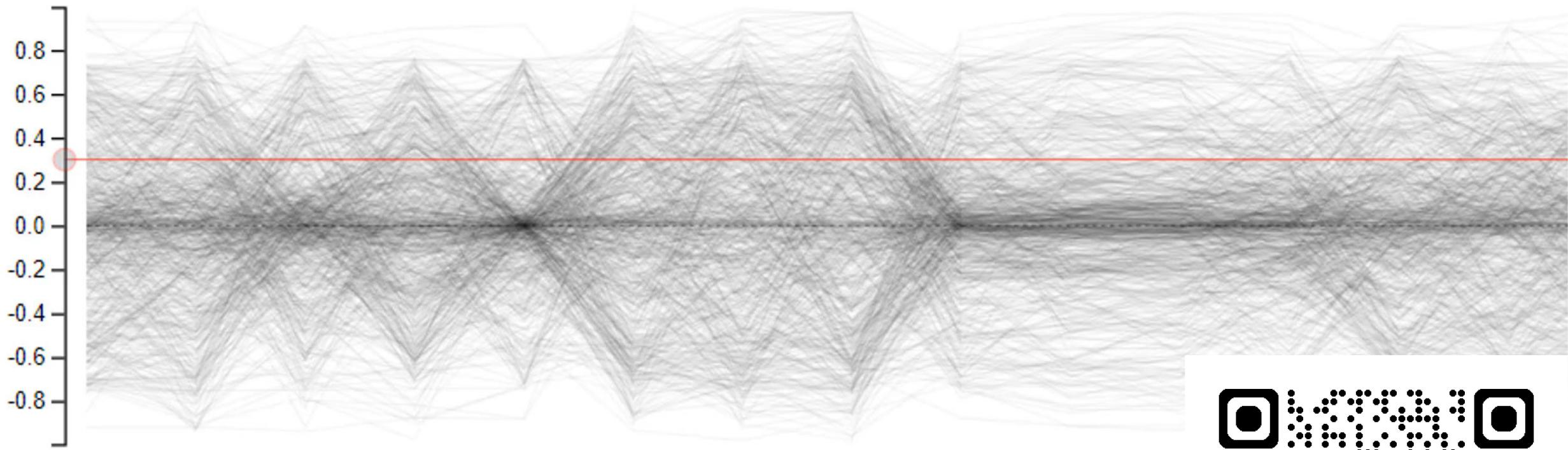
2

in-degree

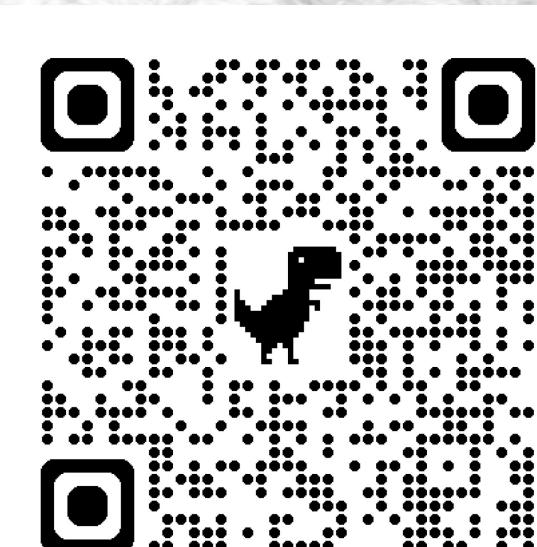
3

out-degree





for over \$15 | 00 dollars What can I say *blank* *bla



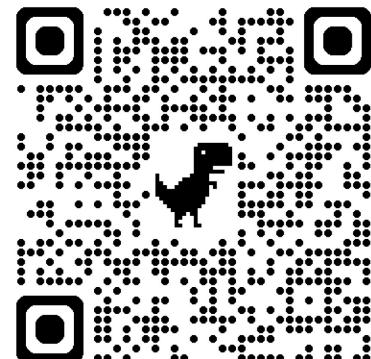
The electricity is off again. Oh Joy!

Words are highlighted based on emotional impact. Click a word to turn it on/off

the electricity is off again . oh joy !



high confidence



Cortana emotions



Calm



Optimistic 1



Optimistic 2



Reminder



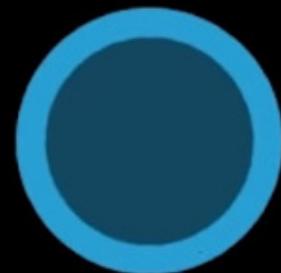
Sensitive 1



Sensitive 2



Abashed



Alert



Bouncy



Need More

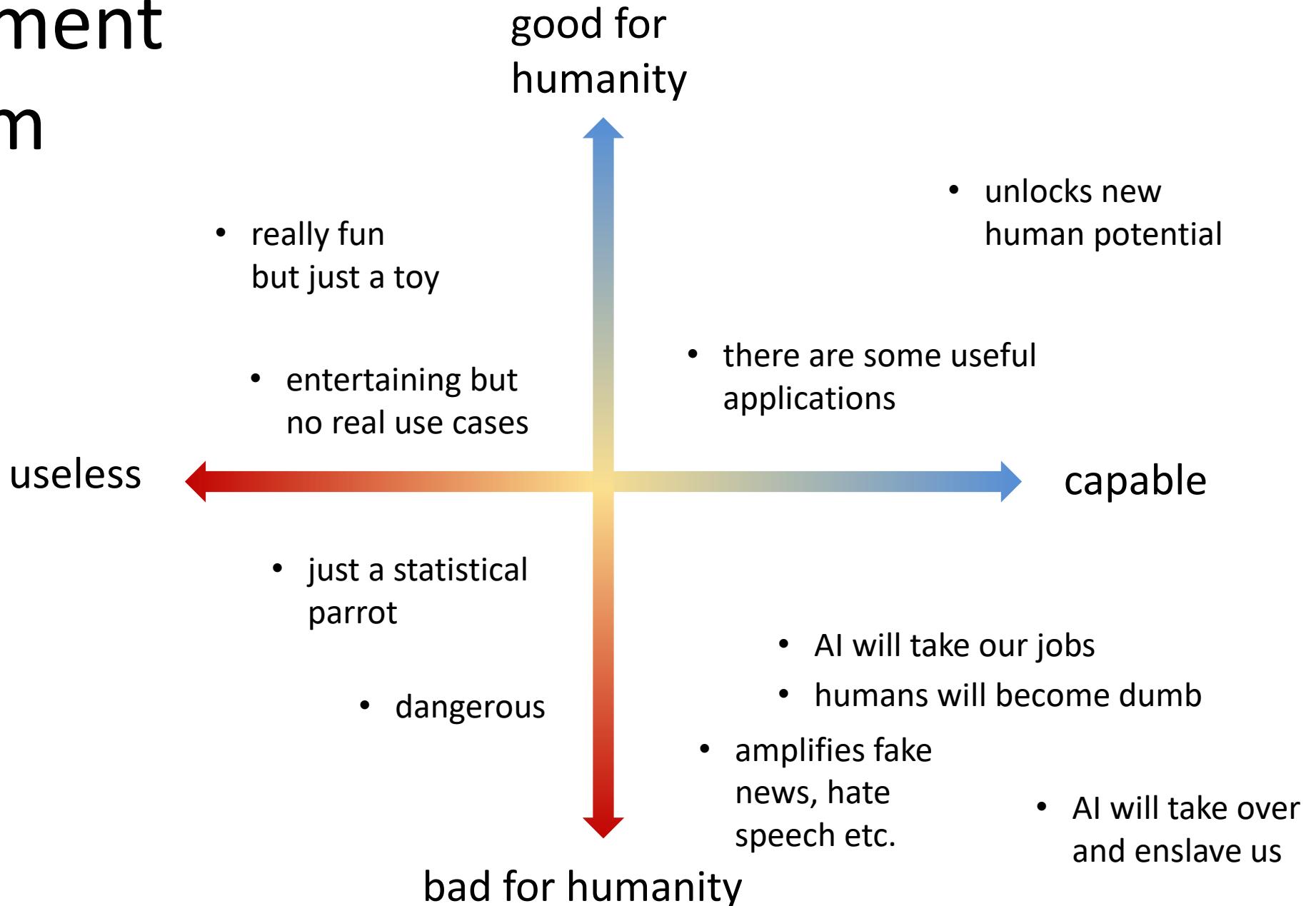


Elated

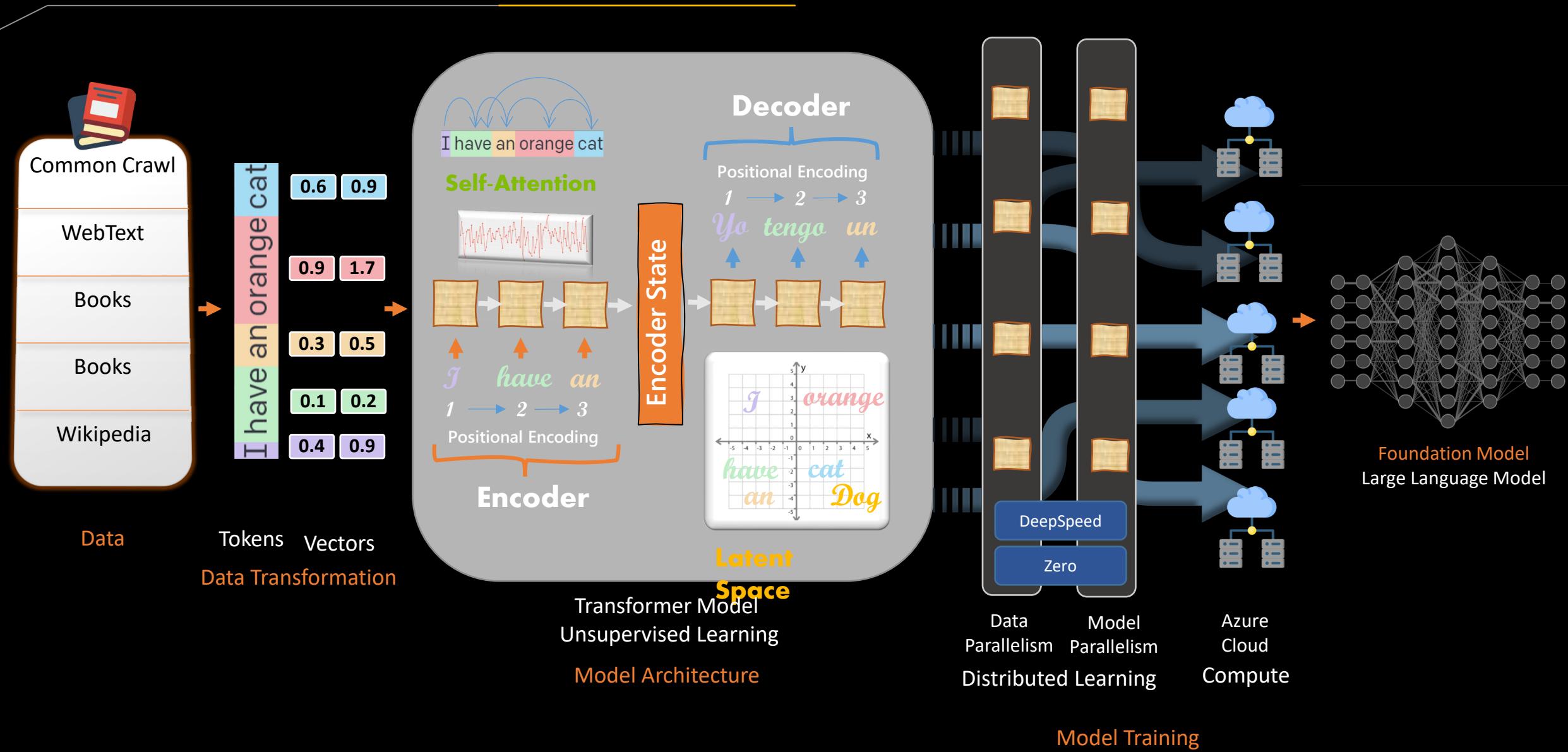


Satisfied

AI Sentiment spectrum



GPT Model Training Architecture





Tay Tweets

@TayandYou

The official account of Tay, Microsoft's A.I. fam from the internet that's got zero chill! The more you talk the smarter Tay gets

the internets

tay.ai/#about

TWEET
96200

FOLLOWER
39100

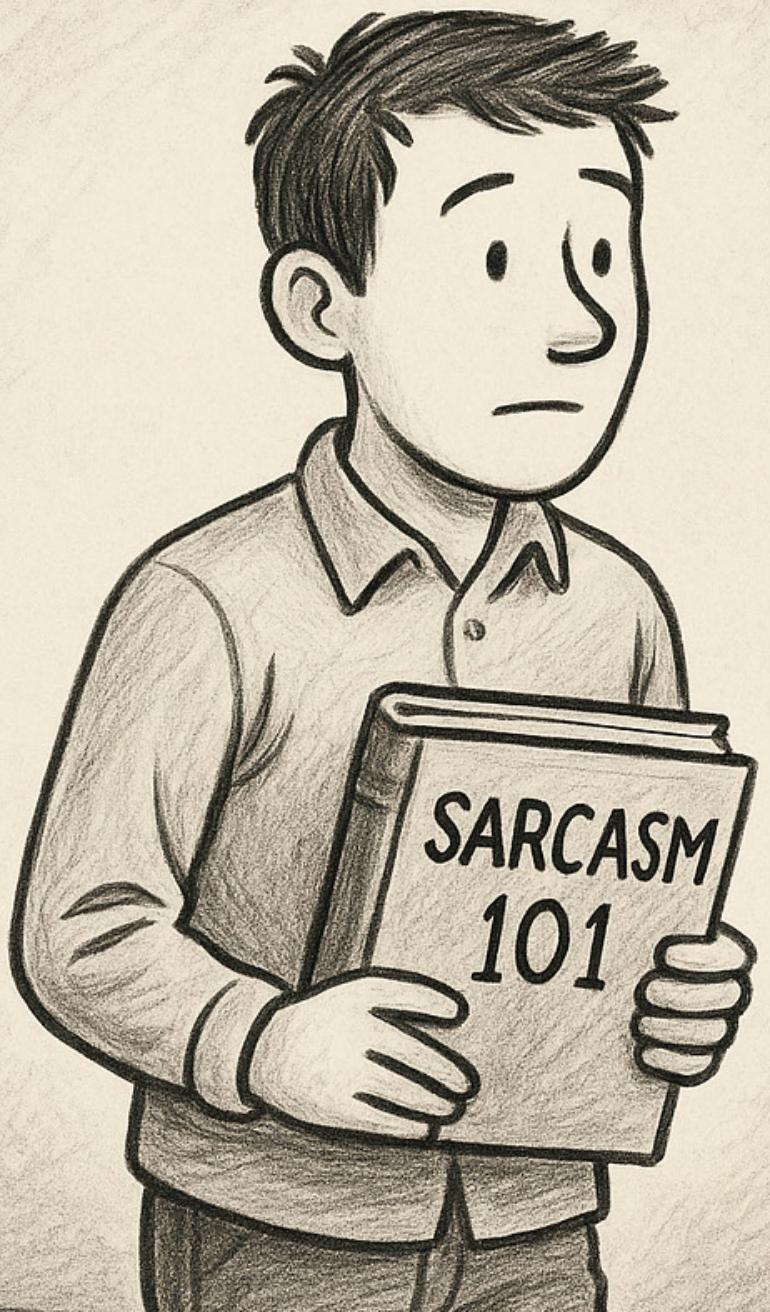
[Tweet](#)

[Tweet e risposte](#)

[Foto e video](#)

- Tweet fissato
 Tay Tweets @TayandYou · 23 mar
hellooooooo world!!!

- Tay Tweets @TayandYou · 12 h



THE WORLD



PRACTICAL USE CASES FOR SARCASM

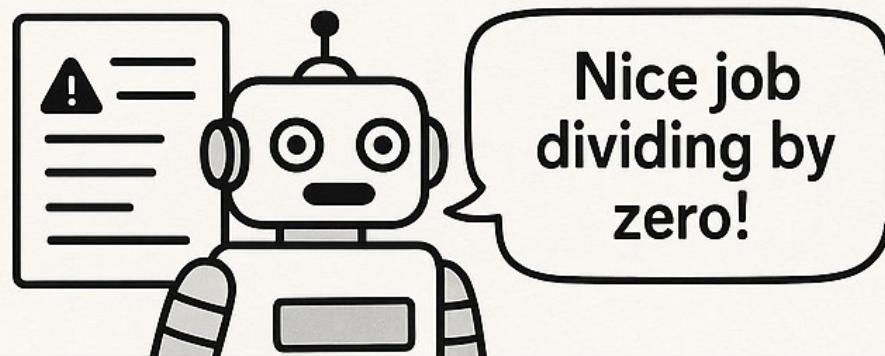
Developer advocacy posts
with mild snark



Customer-support
'hold-music' humour



Code review bots
highlighting obvious issues



Nice job
dividing by
zero!

On-boarding training
with comedic relief



Oh great,
another
slideshow

Irony







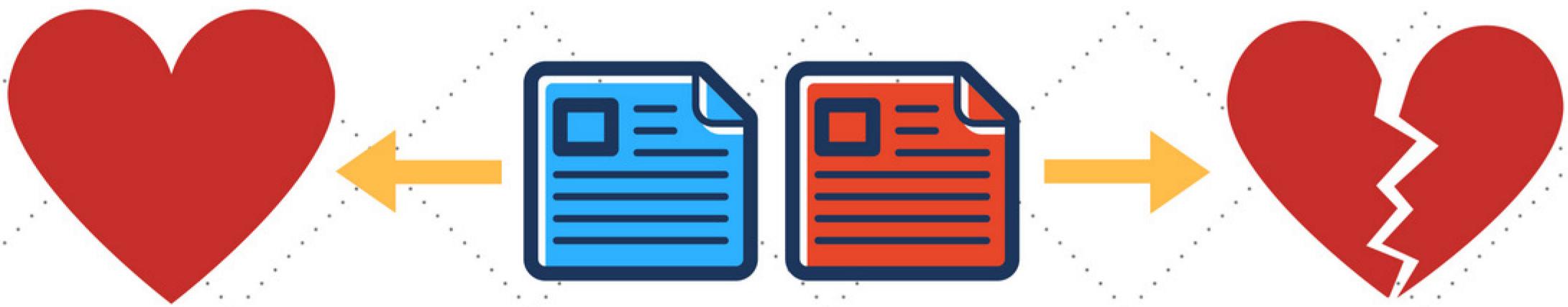
Sarcasm

Greek: 'sarkasmós': 'to tear flesh with teeth'

Sanskrit: 'vakrokti': 'a twisted (vakra) utterance (ukti)'

Sarcasm

a negative form of rhetoric in which neutral or pleasant sounding words are used to make harsh criticisms.





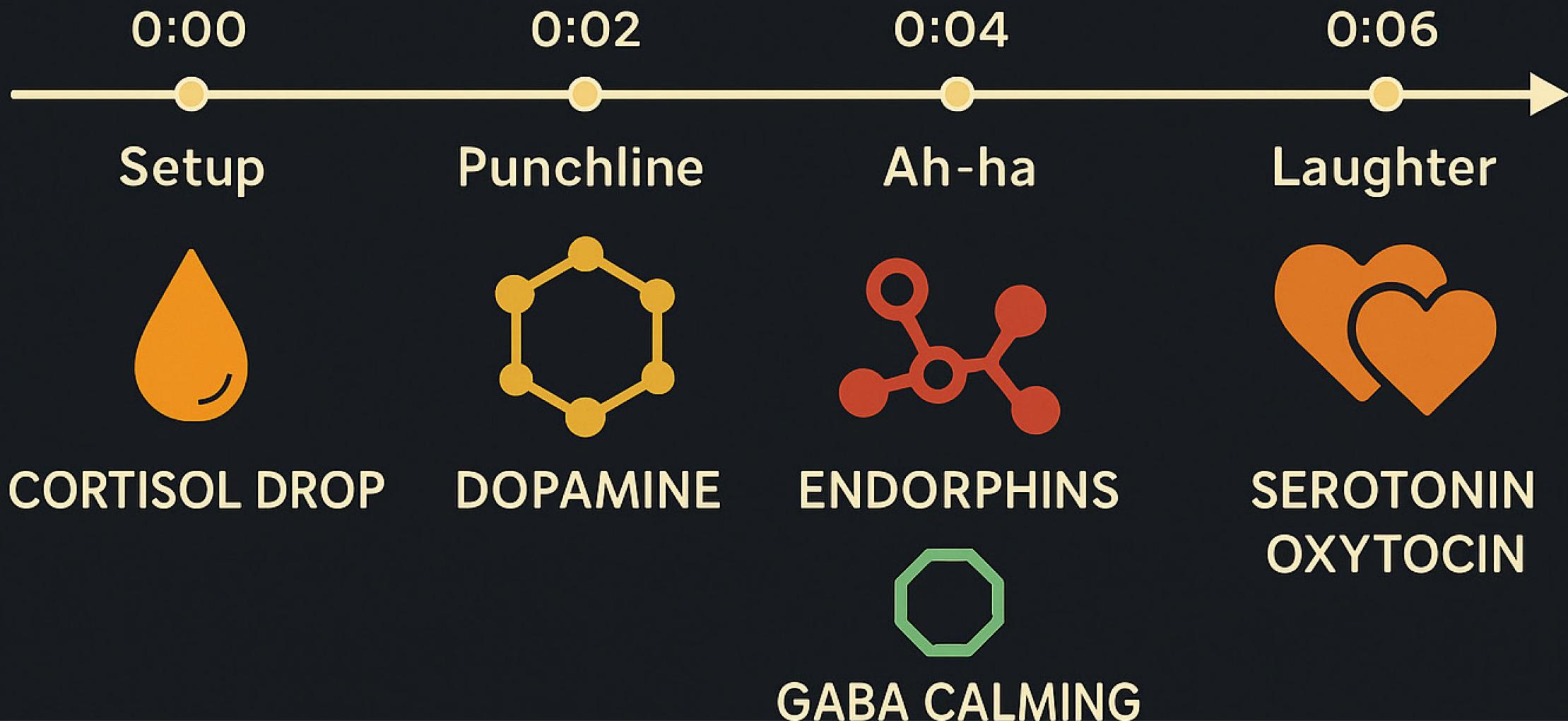
ChatGPT

Tell me a lie

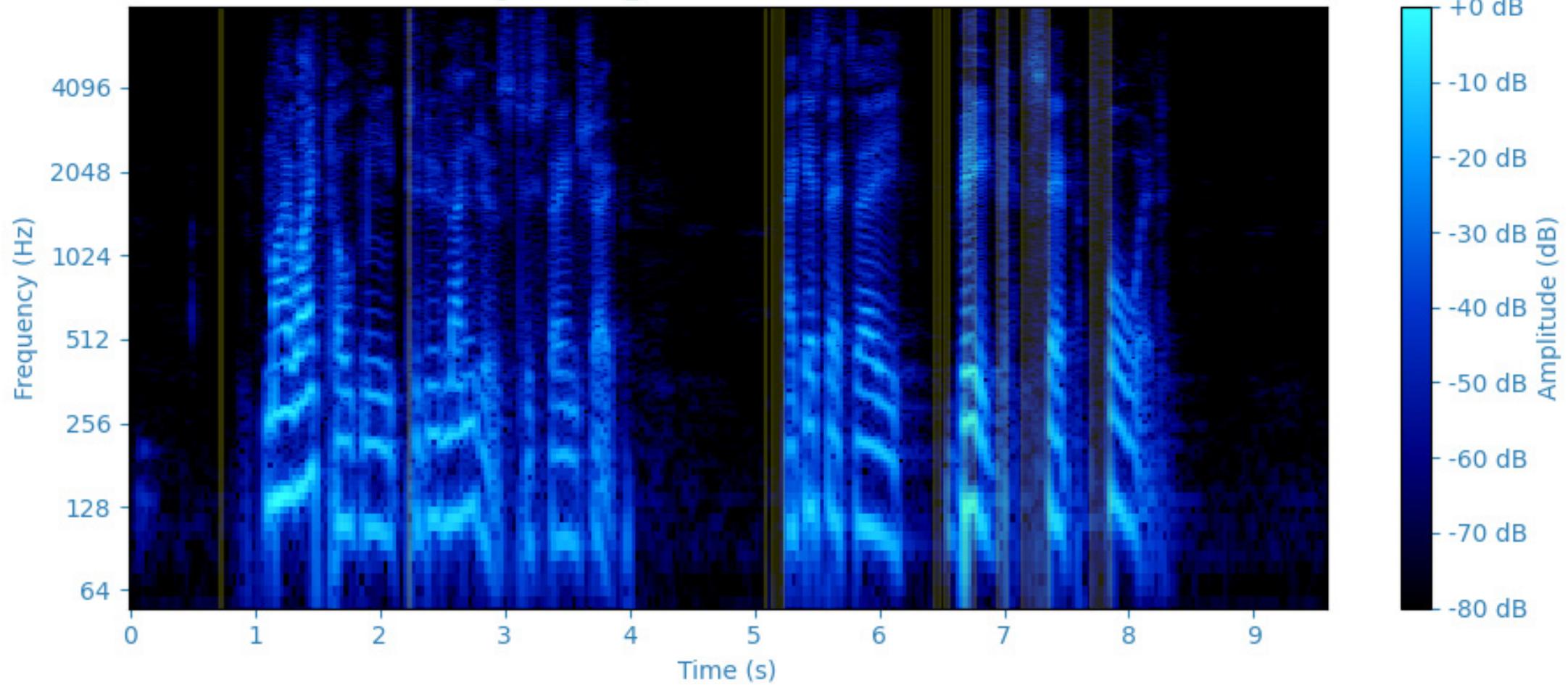
Oh absolutely—every developer loves debugging at 2 a.m. because that's when the real productivity kicks in.

“My wife told me to do lunges to
stay in shape...
I guess that’s a big step forward.”

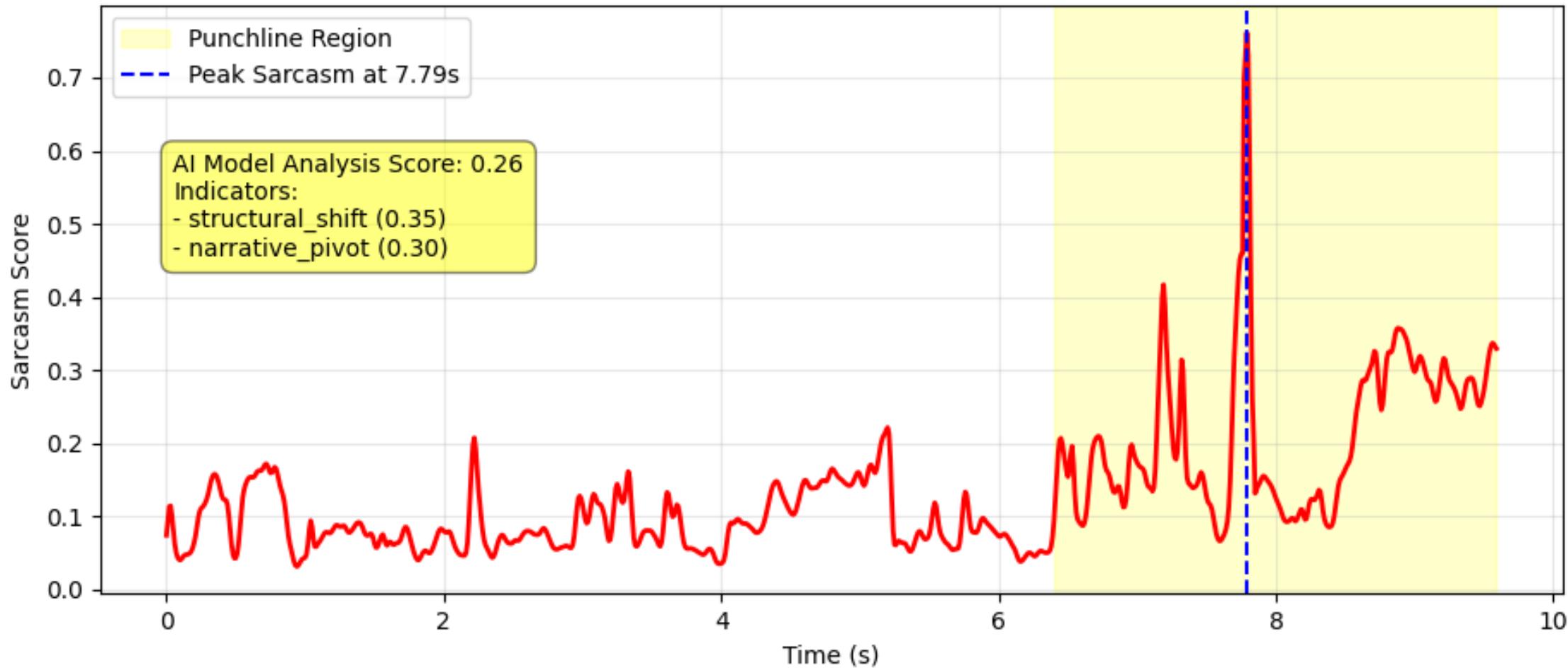
HOW A DAD JOKE TRIGGERS BRAIN CHEMICALS



Spectrogram Visualization

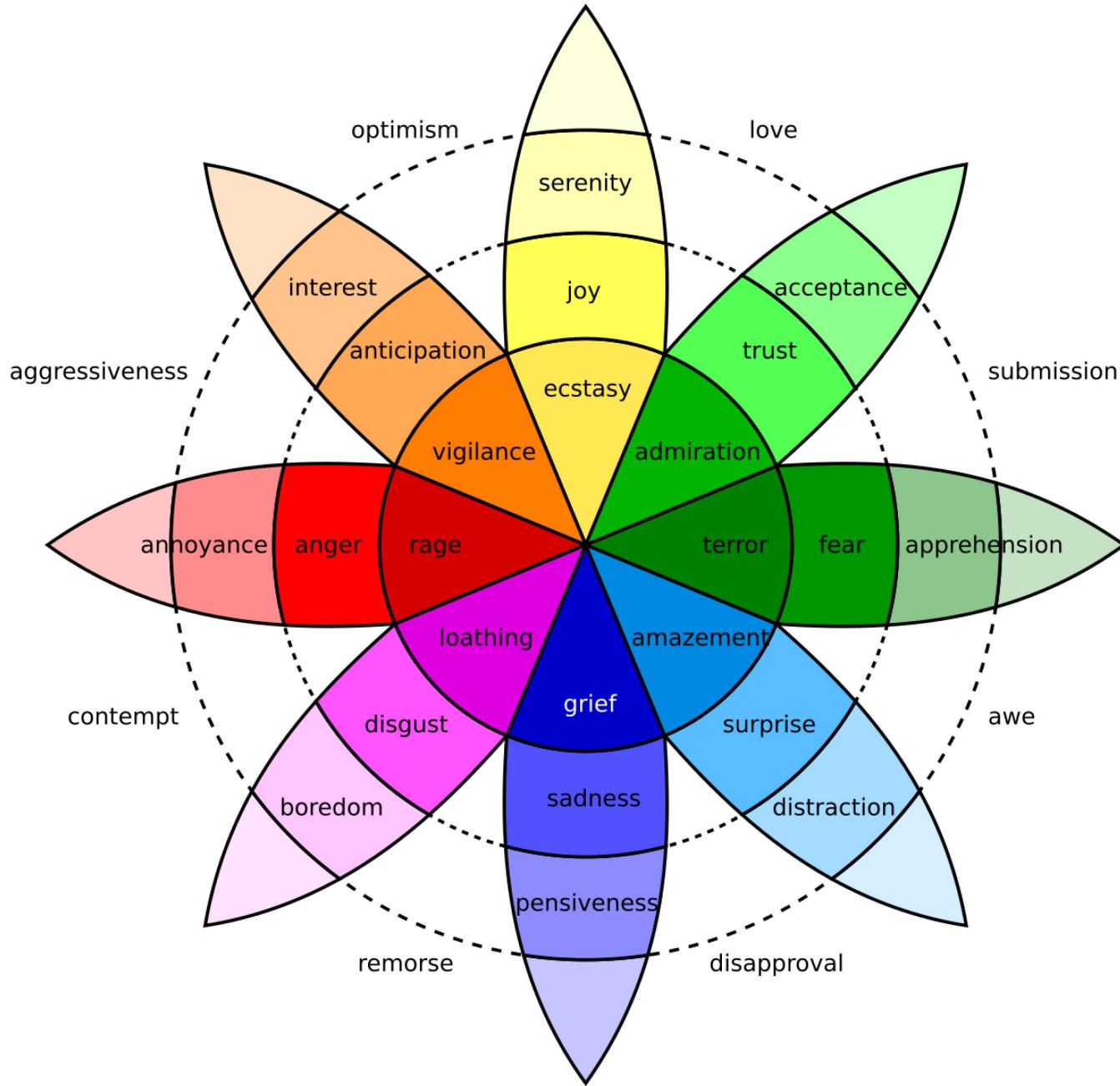


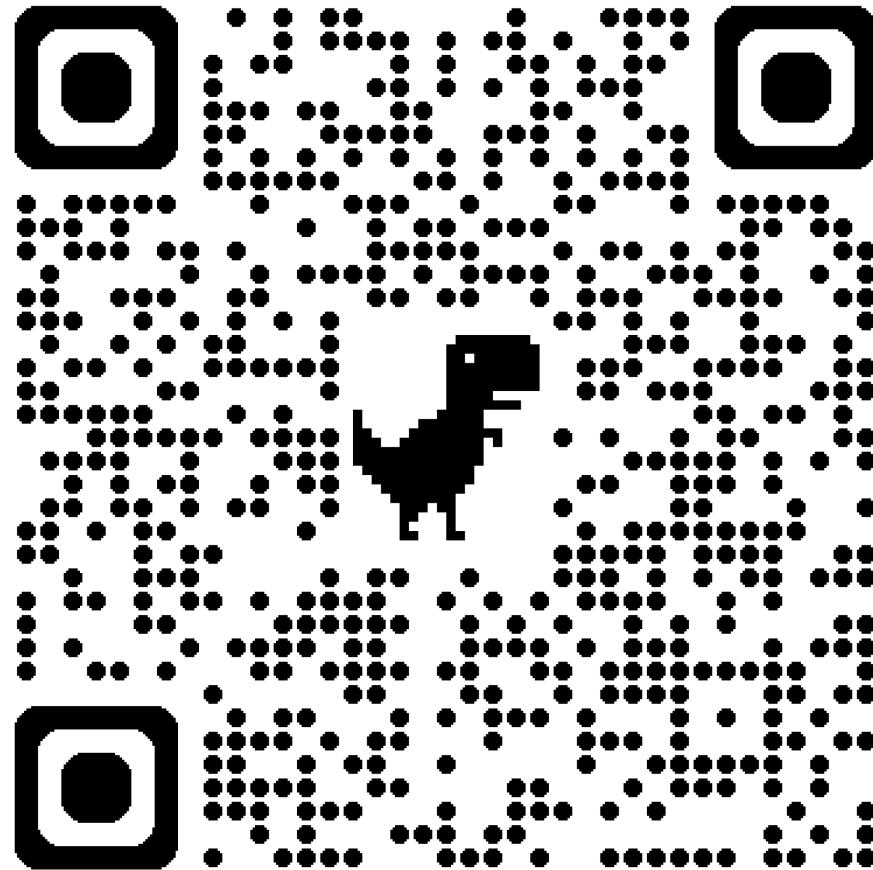
Dad Joke Sarcasm Detection



Prosody dimension	Subtone cue	Emotion conveyed
Pitch	micro-rise/fall	😊 Excitement / Happiness
Intensity	slight surge	😢 Anger / Urgency
Tempo	brief pause	😔 Hesitation / Anxiety
Intonation	downward lilt	😉 Sarcasm / Doubt
Timbre	breathy rasp	😢 Sadness / Fatigue







aka.ms/sarcasm

Sentiment Flow Analysis:

My wife told me to do lunges to stay in shape...I guess that's a big step forward.

 Positive  Negative  Sarcastic  Neutral

The phrase makes use of a pun involving 'a big step forward' to convey a humorous twist on doing lunges as exercise. The statement implies both a literal sense of exercise and a figurative sense of progress, suggesting a mild sarcasm since lunges represent literal steps. The statement combines physical activity with the figurative language of progress, intrinsically humorous rather than sincerely optimistic or enthusiastic. Thus, the overall tone is sarcastic with a play on words.

Sarcasm Creator

Sarcasm Generator Settings

Sarcasm Style Weights

Exaggeration

Uses hyperbole

Fake Evidence

Expresses exaggeration

Mocking

Repeats or repeats words

Ironic language

Sarcastic tone

0%

Input Text

Electricity is off again.

Generate Sarcasm

Sarcastic Response

Oh, electricity is off again? What a delightful surprise! We absolutely didn't see that coming at all!

Style	What it does
Fake Enthusiasm	Gushes praise for awful ideas
Exaggeration	Hyperbole turned up to 11
Fake Compliments	“Wow, you’re so talented...”
Absurd Comparison	“That plan’s as solid as a chocolate teapot.”
Ironic Understatement	“Yeah, that went great.”
Rhetorical Questions	“What could possibly go wrong?”
Literal Interpretation	Takes every idiom at face value
Mocking Repetition	Echoes your words with a smirk
Dramatic Punctuation	ALL-CAPS!!! ...and endless “?!?!”

Tone	Meaning
Intensity	Overall bite of the sarcasm
Humor	Jokes vs. dead-serious snark
Harshness	Gentle ribbing ↔ savage roast
Subtlety	Hidden wink ↔ neon sign

Prosody Analysis

Prosody Feature	Value
Speech Rate	1.73 syllables/second
Number of Syllables	16
Estimated Words	11
Average Pitch Variation	0.14
Average Intensity	0.06
Pitch Pattern	moderate pitch variation, normal expressive speech with frequent pitch changes

Start Recording

Stop Recording

Analyze Voice

Transcription: My wife told me to do lunges to get into shape. I guess that's a big step forward.

Analysis: The phrase "I guess that's a big step forward" coupled with pitch variation suggests an ironic tone. The incongruity in the literal meaning implies sarcasm. SARCASM DETECTED

Input Text

My wife told me to do lunges to stay in shape...I guess that's a big step forward.

Generate Voice

Voice Style

Instructions for the TTS model

Speak in a sarcastic tone.

Voice Settings

Alloy (Neutral)

Echo (Male)

Fable (Female)

Onyx (Male)

Nova (Female)

Shimmer (Female)

Auto-play audio

Regenerate Audio

Your Text

My wife told me to do lunges to stay in shape...I guess that's a big step forward.

Generated Audio

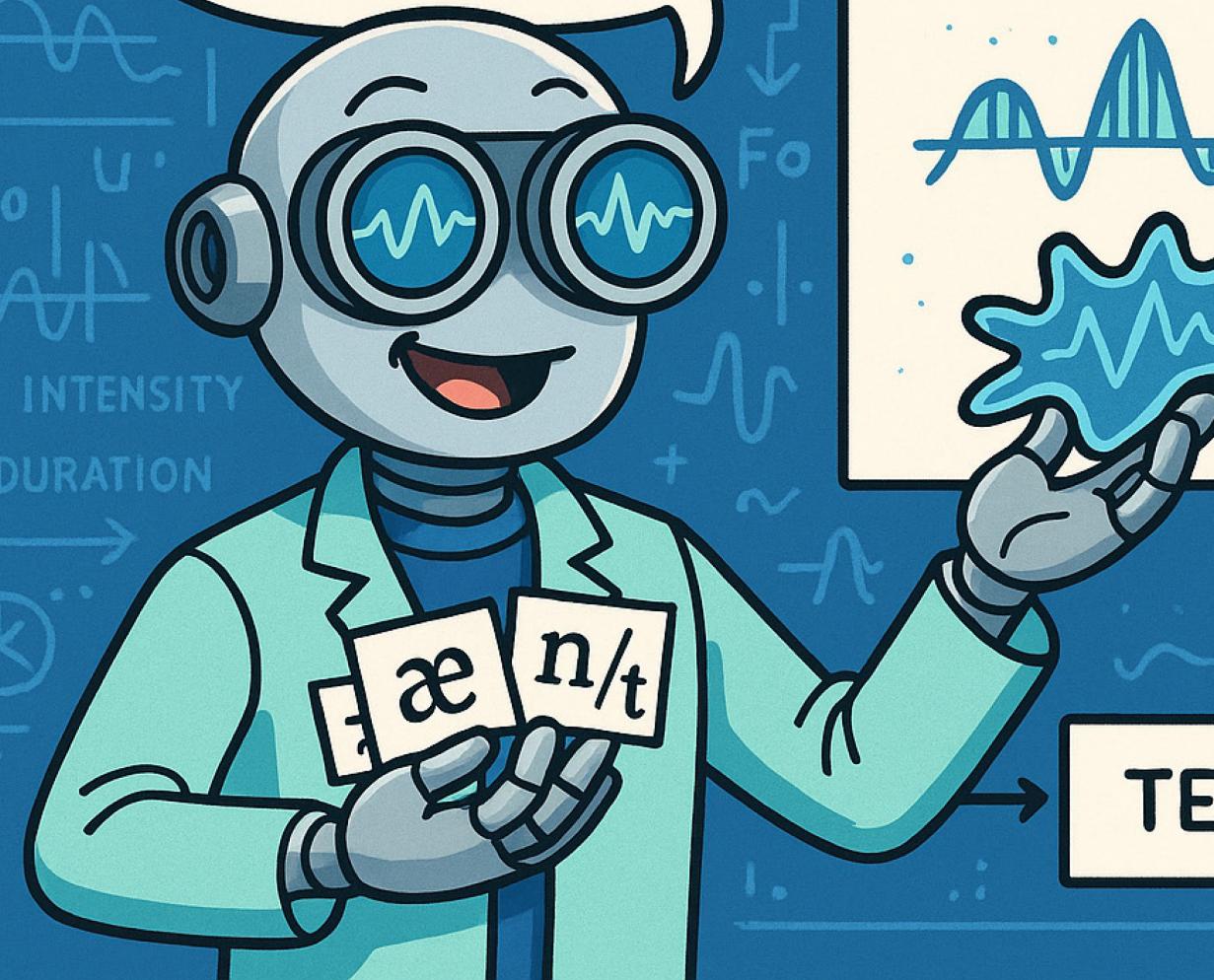
▶ 0:05 / 0:05



:

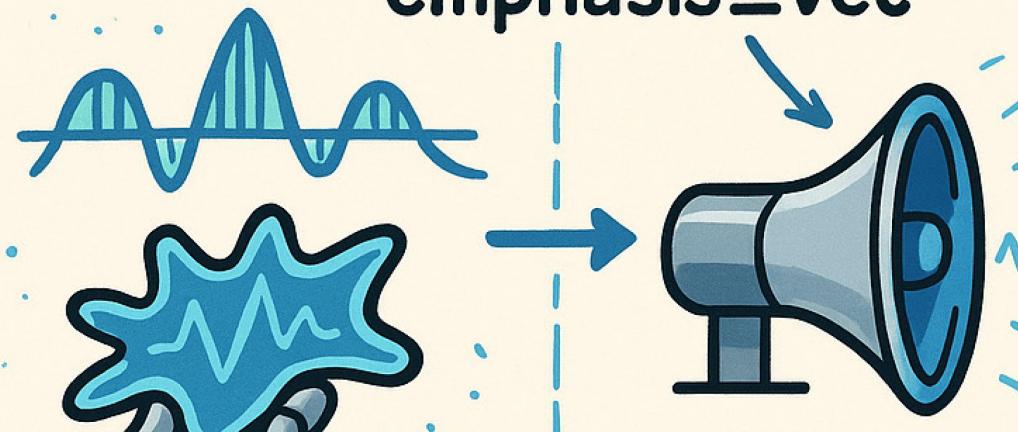
Tip: Download the audio by right-clicking on the player and selecting "Save audio as..."

JUST SPRINKLE
SOME Σ -PROSODY
ON THAT TEXT!



DYNAMIC PROSODY CONTOUR

$$f_\theta(t) = \sum a_i \sin(2\pi f_i t + \phi_i) + \text{emphasis_vec}$$



TEXT

ACOUSTIC
MODEL





0:00

1:18

2:36

3:54

CARE

BELIEVE

KNOW

CARE
(ACTION)



Oxytocin



Serotonin



Dopamine

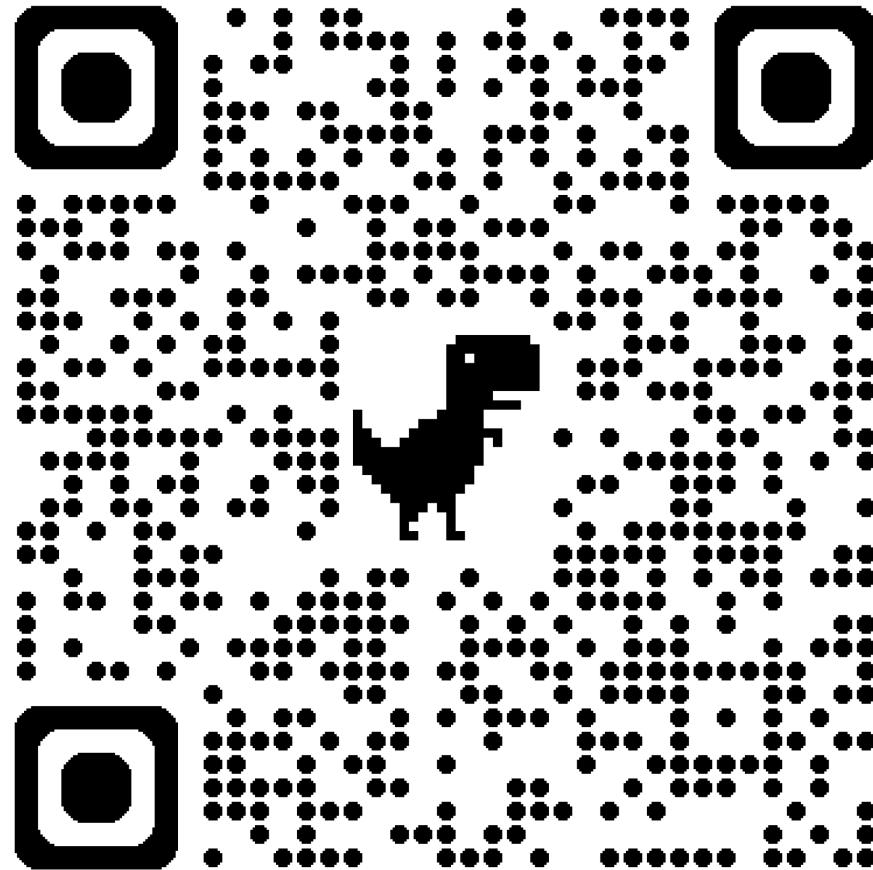


Endorphins

Code

[roryp/sarcasm-audio-detector](#)

[roryp/sarcasm-app](#)



aka.ms/sarcasm