Language models that stimulate creativity

by Matthew Huebert
BrainTripping
My greatest works live on, as ring tones. You can have them all for nine dollars.

Jesse tripping on Beethoven last month

Once upon a time I had a dinner with some friends. For God's sake, people are still talking about it.

phzbox tripping on Jesus 4 months ago
Anyone up for some Crusades?
Ibrey tripping on the Pope last month

Well done, my lambs.
bluefish tripping on Jesus 5 months ago
My hair is hiding Obama's real birth certificate.
Elizabeth tripping on Donald Trump last month

The caribou herds of Texas and Arizona stay together, because they've got that spirit of America in their hearts.
bluefish tripping on Sarah Palin 5 months ago
Microsoft is a monopoly

matt tripping on the Pope 12 hours ago

Nothing compares to monopoly of a man's soul.
Unlike you, I have taste.
matt tripping on Steve Jobs 3 months ago

You call turtle-shaped necks taste? In North Korea anyone with criminal fashion like you, is scorned and beaten by Yan-lu's tongue-lashings. Reform! Or be licked.
HQI tripping on Kim Jong-Il 3 months ago

Just look at your operating-system. Enough said.
matt tripping on Steve Jobs 3 months ago
Hopdance! Hopdance to work, hopdance to play. Hopdance like it's dooms-day.

matt tripping on Shakespeare 4 months ago

shalty tripping on Edgar Allan Poe 4 months ago

Hop-Frog Hop-O'My-Thumb! Finally a certain Somebody bewitched as I with violent shaking as pleasure!

HQT tripping on Tupac 4 months ago

Hip hip Hip-Hop hooray!! Thanks to y'all, my former bored ass is dancin like a hot plate!

aaroniba tripping on Jane Austen 4 months ago

Hop step and repeat. If you don't trust my words, then watch my dancing feet.

HQT tripping on Jane Goodall 4 months ago

What bumping beats! Even dung-swirling herbivores couple get sprung to this!

shalty tripping on the Pope 4 months ago

Oh my Oh my, my shoulders just moved one way and then the other, it feels like two angels are emasculating my mind.
Diggin deep, *EEP

1. deep
2. creep
3. peep
4. Keep
5. heep
6. asleep

Shuffle
Diggin deep, fallin asleep

1. asleep

Shuffle
Your most faithful

1. friend
2. feel
3. fruitless
4. Farewell
5. few
6. fieux
7. fortunes
8. four days
9. fourteen days

Shuffle
Building BrainTripping
+ Lessons Learned
+ Observations
makin’ brains
Matthew 9:25

"When Jesus had heard that John had been arrested, he withdrew to a solitary place. People followed him, and he healed them. But he needed to eat and drink, so he gathered his disciples and explained, "This is the reason why I came to drink and eat. The Passover is drawing near, and I must go to Jerusalem to fulfill God's plan."

The Parable of the Sower

Jesus told them, "A sower went out to sow. As he sowed, some seed fell along the path, and the birds ate it. Some fell on rocky ground, where they sprouted quickly, but when the sun came up, they were scorched. Some fell among thorns, which choked them and prevented them from growing. Some fell on good ground, where they produced a hundredfold."

Jesus' Authority over the Sabbath

Jesus said, "The Sabbath was made for man, not man for the Sabbath. The Son of Man is Lord of the Sabbath."

The Parable of the Wicked Workers

Jesus said, "The workers were paid for what they had done. But when they came to the master of the house, the first received ten pieces of silver, the second received five pieces of silver, and the third received two pieces of silver. Then the worker who had received only one piece of silver said, 'Sir, one piece of silver is not enough to buy a loaf of bread.' And the master of the house answered, 'Is it not written, 'What you do not possess, do not plan to possess'?"

The Parable of the Workers in the Vineyard

Jesus said, "The owner of the vineyard paid a worker a hundred pieces of silver for a day to work in the vineyard. He went and joined other workers, and the owner paid him the same. He went back to the owner and said, 'Sir, I worked in your vineyard for the whole day, and you paid me one piece of silver.' The owner answered, 'I give you what is due. What is the problem?'"
who built his house on the rock. "The rain came down, the streams rose, and the flood came and destroyed all his house. But the one who built on the rock, his house endured because the rock was firm. So also every one who hears these words of mine and puts them into practice can compare himself to that wise man. For not everyone who says to me, 'Lord, Lord,' will enter the kingdom of heaven, but only he who does the will of my Father in heaven. "Whoever comes to me and does not hate his own family will not be able to be my disciple. And whoever does not carry his own cross and follow me cannot be my disciple. "Whoever finds his life will lose it, and whoever loses his life for my sake will find it. "Whoever gives one of these little ones only a cup of cold water to drink in the name of a disciple—truly I tell you, he will surely receive his reward. "Whoever causes one of these little ones who believe in me to sin is better for him to be thrown into a mill with stones. "It is easier for a camel to go through the eye of a needle than for a rich man to enter the kingdom of God. "Again I tell you, it is easier for a camel to go through the eye of a needle than for a rich man to enter into heaven. "When the son entered, his father gave him a pair of fine goats, but the son said to his father, 'First let me eat the goats.' "Then he said to him, 'Son, you are always with me, and everything I have is yours. But because this son of yours was lost and has found his way home, let’s have the cake ready and kill the calf, for we were rejoicing because this boy of ours has found his way home.' "He then returned to his father and said, 'Father, I have sinned against heaven and against you. And I am no longer worthy to be called your son. Please treat me like one of your hired men.' "But his father said to his servants, 'Quickly bring out the best robe for my son, and put sandals on his feet. And bring the fatted calf and kill it, because we were rejoicing because this boy of ours has found his way home.' "For this son of mine was dead and is alive again, and was lost and is found.' And everyone rejoiced. "Then his older son heard it and became angry and would not go in to the man's house. So the father went out and began to persuade him. But he answered his father, 'Look! These many years I served you, and I never disobeyed any command of yours, but you never gave me a kid for my enforced work. 'And you never gave me a celebration except one time, when my brother got home. 

"I have been with you all along, but why did you not give me even one of these little goats?' "So the father said to him, 'Son, you are always with me, and everything I have is yours. But we had to celebrate and to be glad, because your brother was dead and has come to life, and was lost and is found.' "The crowd was divided into two groups. One group said, 'This man is a sinner and should be stoned to death.' The other group said, 'He is not guilty of this.' "Someone came to him and said, 'Teacher, what good must I do to have eternal life?' "Jesus said to him, 'Why do you ask me about what is good? You know the commandments.' "He said, 'You know the commandments.' Jesus said to him, 'You have said well. Do this and you will live.' "Then he went away, sorrowful, for he was a rich man. "And when he saw Jesus, he went out and fell at his feet, and he worshiped him. "Then Jesus looked at him and loved him, and said to him, 'One thing you lack. Go, sell everything you have, and give to the poor, and you will have riches in heaven; and come, take up your cross and follow me.' "But he was unwilling to do so, and went away sorrowful, for he had great possessions. "Then Jesus said to his disciples, 'Truly, truly, I say to you, it is easier for a camel to go through the eye of a needle than for a rich man to enter the kingdom of God.' "When the disciple heard that, he said, 'Then who can be saved?' "Jesus looked at them and said, 'With man it is impossible, but not with God. All things are possible with God.' "Then Peter said, 'See, we have left all and followed you. What then shall we have?' "Jesus said to them, 'Assuredly, I say to you, whoever does the will of God will enter the kingdom of heaven.'"
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Corpus Length

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portraits
Scott McLeod
suggestion algorithm
Zipf’s Law
Zipf’s Law

This friendship has __

1. made
2. always
3. alone
4. retrogressed
5. caused
6. reproduced
7. awakened
8. shattered
9. dazzled

Shuffle
Zipf’s Law

High Frequency
“glue” words

Low Frequency
unexpected, random
1. Ka-pling, ka-plow,
2. Ooohwee, who popped
3. My enemies your
4. He'd love
5. As they
6. They talkin
7. With love
8. Buck buck buck
9. So when you

Shuffle
speed
Speed of Word Lookup

10 seconds
Speed of Word Lookup

10 seconds

- read;
- synthesize;
- produce
Speed of Word Lookup

10 seconds

read;
synthesize;
produce

100 milliseconds
Speed of Word Lookup

10 seconds
read;
synthesize;
produce

100 milliseconds
real-time interaction
Shared Authorship

user

algorithm

source author
Anonymity: yellow_frog_1982

Real Identity: Matthew Huebert
Anonymity

Real Identity

Mask

yellow_frog_1982

Matthew Huebert

Matt tripping on Freud
Mask
intuition for data
In a cave in Kartoom lives a beast called the Natch
In a cave in Kartoom lives a beast called the Natch.
In a cave in Kartoom lives a beast called the Natch
One fish, two fish, red fish, blue fish.
One fish, two fish, red fish, blue fish.
One fish, two fish, red fish, blue fish.
Buddhism is an incomprehensible atrocity for capitalism!

No words!

Shuffle
Bring'st all of thine cat paintings! I shall publish them post-haste to the inter nets!

comatosekid tripping on Shakespeare last month
Implementation
speed (developer, response time)
simplicity

Heroku (managed servers, simple to scale)
Node.js (same language on client and server)
In-memory language models
human process
Hacking BrainTripping
Node.js hackathon in Montréal

Hisako, Gina Cook, Brian Doherty, Mary Ellen Cathcart, Jon Volkmar, Martin Provencher, Jeff Marshall
Experiment Quickly

PITCH

HACK

PRESENT
Thanks!

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@geoshift
Future

- Structured creative writing: “constrain and suggest”
- Foreign language “training wheels”