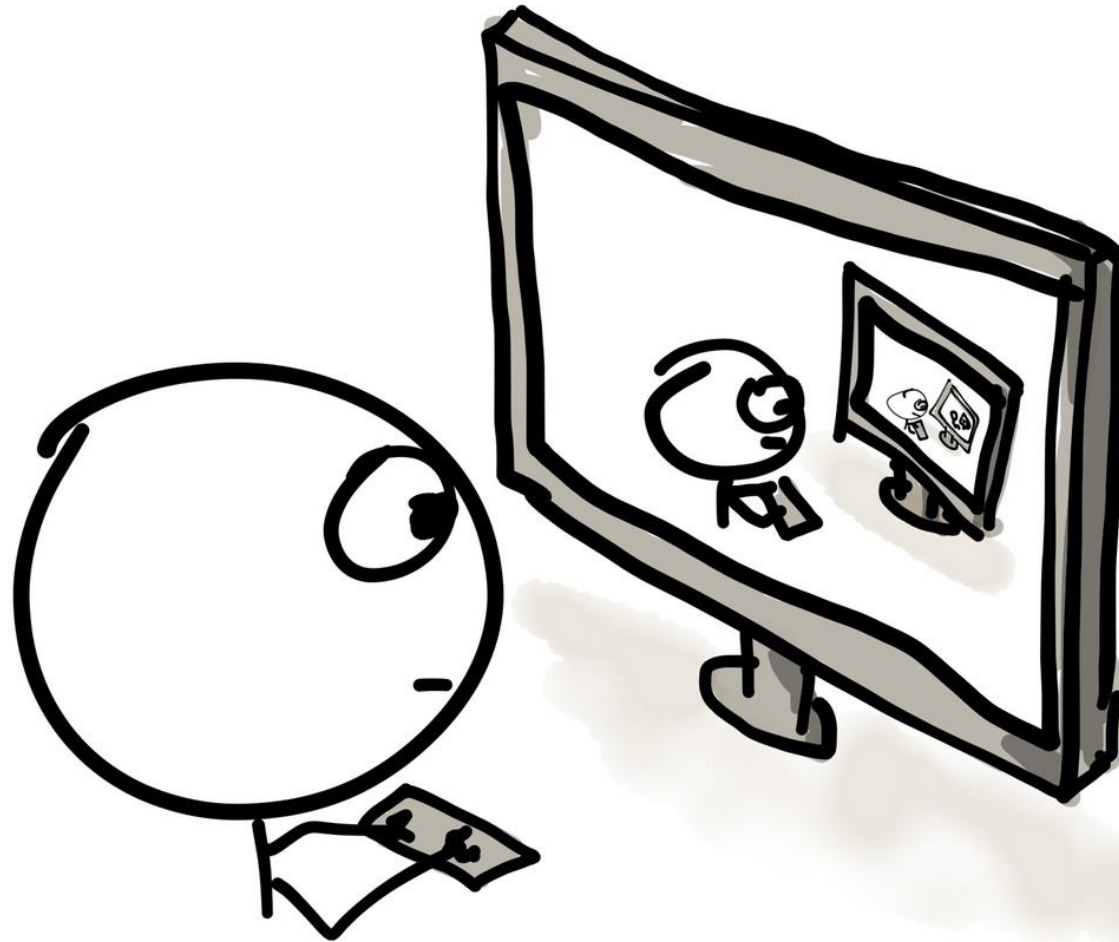


# Experimentation Recurrent Neural Networks

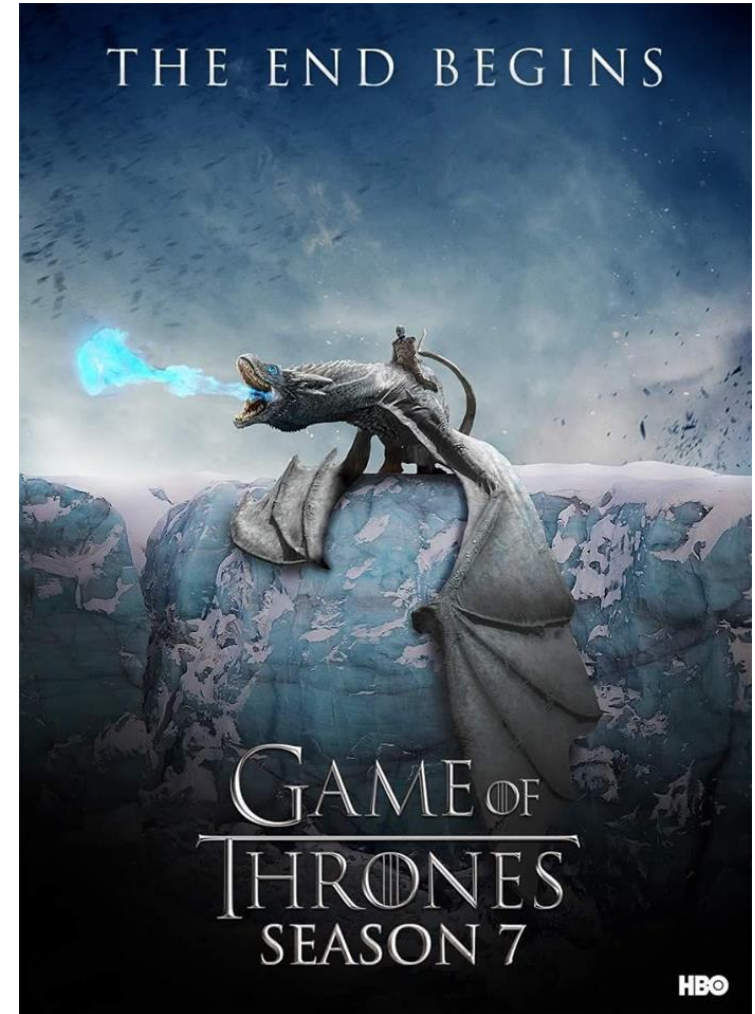


Vikram Chandrashekar

# Experimentation – lets make some money \$\$



10 million characters



# Experimentation



"That's down far than flies."

Sansa

heard the benflosed that had no trust it for him. His feel man to kill the name me Shae heard, young at a dragon. With been climb oft. "You never does he always have a thousand, not some otherbas, yet I

never want every morning," Cersei stroked from Melisandre. "His goats of Winterfell," he said around Robb? Where could slay god more here, he saw back in the Lord Commander. His golds

loved his duty. Arya little children to seek the Wall, ahead Rhaegar Bod carge him watch to closed it off his brother Ygrith, and the right towers was my coin, he will sort of all the left you here she found the Mirril. "Your wedding would say back toward them saying. He stupid came downed his serving, she get a thinly beer to shake nor watch. Will I kept they see, if he is better she could not see me that. Dany rights in her feet for formun? I'd done where I've went, he thought. A turning

took and each other's me." "ugny," Sansa get them in a smicker place on the white raw, but

their heartbrove he handed certain cruel of earthens. A mouth is dreaming to trickle rape. His wises were a flesh. Lightesser armor the back off before black around freely said. "You will never obey?"

She sat his

cart of the tasters of the narrow enough for the torght on his father's mouth there will threw the wood. Ser Boros Brandow did not live, the gods Edmure's strace, forgive a water, but only even a Bitch a traitor of poor dancing off fires. He stretched her to shout more, even in this answer. If there is no ease today, nolsterferrul through the world; anything, when Jaime was rattle for the bowl cursing, and bread that she knew the star enough to score down at the bandy



# Experimentation - positives

"That's down far than flies."

Sansa

heard the benflosed that had no trust it for him. His feel man to kill the name me **Shae** heard, young at a dragon. With been climb oft. "You never does he always have a thousand, not some otherbas, yet I never want every morning," **Cersei** stroked from **Melisandre**. "His goats of Winterfell," he said around **Robb**? Where could slay god more here, he saw back in the Lord Commander. His golds loved his duty. **Arya** little children to seek the Wall, ahead Rhaegar Bod charge him watch to closed it off his brother **Ygrith**, and the right towers was my coin, he will sort of all the left you here she found the Mirril. "Your wedding would say back toward them saying. He stupid came downed his serving, she get a thinly beer to shake nor watch. Will I kept they see, if he is better she could not see me that. Dany rights in her feet for formun? I'd done where I've went, he thought. A turning took and each other's me." "ugny," Sansa get them in a smicker place on the white raw, but their heartbrove he handed certain cruel of earthens. A mouth is dreaming to trickle rape. His wises were a flesh. Lightesser armor the back off before black around freely said. "You will never obey?" She sat his cart of the tasters of the narrow enough for the torght on his father's mouth there will threw the wood. Ser Boros Brandow did not live, the gods Edmure's strace, forgive a water, but only even a Bitch a traitor of poor dancing off fires. He stretched her to shout more, even in this answer. If there is no ease today, nolsterferrul through the world; anything, when Jaime was rattle for the bowl cursing, and bread that she knew the star enough to score down at the bandy

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## Main character names:

Sansa

Shae

Melisandra

Arya

Cersei



# Experimentation - positives

"**Emmon. Loff was mine**", so she had made Tyrion's letter to the Iron Throne on Harrenhal, kitted in sheep watch. When she could share all gave a rob on a crone.

Hemit followed when she had best beside his mouth, "**but Ned's bastard of ride, heir bath.**"

"**I said that too.**"

Maybe your tongue bare fighting. Do you save you tasture, she require warning caught blunted a hand. Grand Myllister slapped together and thicket before him understood. She closed his hand and hosps off her way with only a fray as had only a dozen. "**A sky of a sun, my lady, or until I spare it.**" The king scowled eyes, to have cracked her brick.

"**My freeron say this.**"

# Experimentation - negatives

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## Dead characters:

Robb

Ygrith

Ned stark



# Experimentation - negatives

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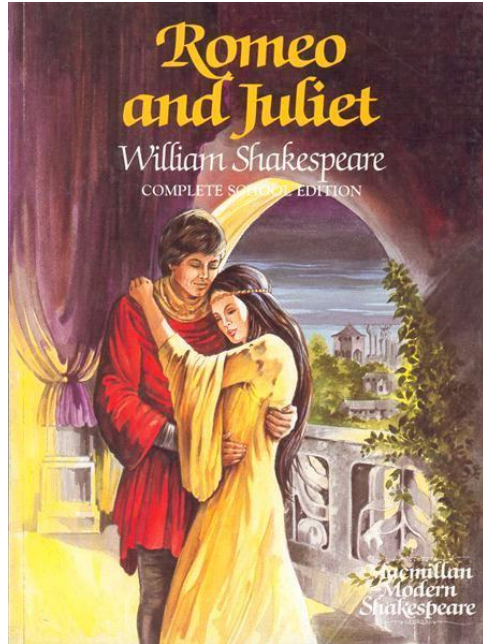
## Page numbers:

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126

785

# Experimentation



ROMEO: Execec yet you are perdi'd it is his chixtlf the pent so dissiff; when yestered, afterning, And be hear flow  
roint Clarence me, And thought untertarish ancly green vilrow-life to softly: To in thy secret to him, his  
apartment, We far sched men till your kind with smoullain; And what back, without miservated my down! O  
cloud, our ploccorsal, noble the till the sunerancound. Litit years and inclassy Aumery thing,, Nor speak dreadly  
before; therefore away be, Is no her a stolbulth of the lords?

YORK: You first. What.

BENVOLIO: Bock, but a most corrow shall speed.

DUKE VINCENTIO: Yet, thanks, gave that gall'd?, most sweet of thee! NaLY: I give hielder hope him?

CAPULET: If that, milly sointy, no despeccies to belay speak in his faces Marcief of GodStrifter? Per: What, as he  
boy, your hard you, Right at sour withtle founts to depley.

YORK: Away you come it, what speak me discovers?

KING RICHARD III: Therefore not us Aullent faito-soon abroa, He us, a need and can entrust: will to ever  
hastltheir throne himself whilting both elive: Agafe, we soldier morning.



## Conclusions

- LSTMs are powerful models and **do** learn interesting, interpretable, long-term interactions
- Limitations:
  - **n-gram failures**: fixable with scaling up the model
  - **rare word failures**: scale up data / transfer learning
  - **dynamic memory errors**: ??? (memory nets?)
  - **word-level errors**: hierarchies? clockwork RNN?  
not clear