

Analyzing Children's Stories

Why Is It So Important
to Read to Our Kids?



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Understand how and why
children's text is important

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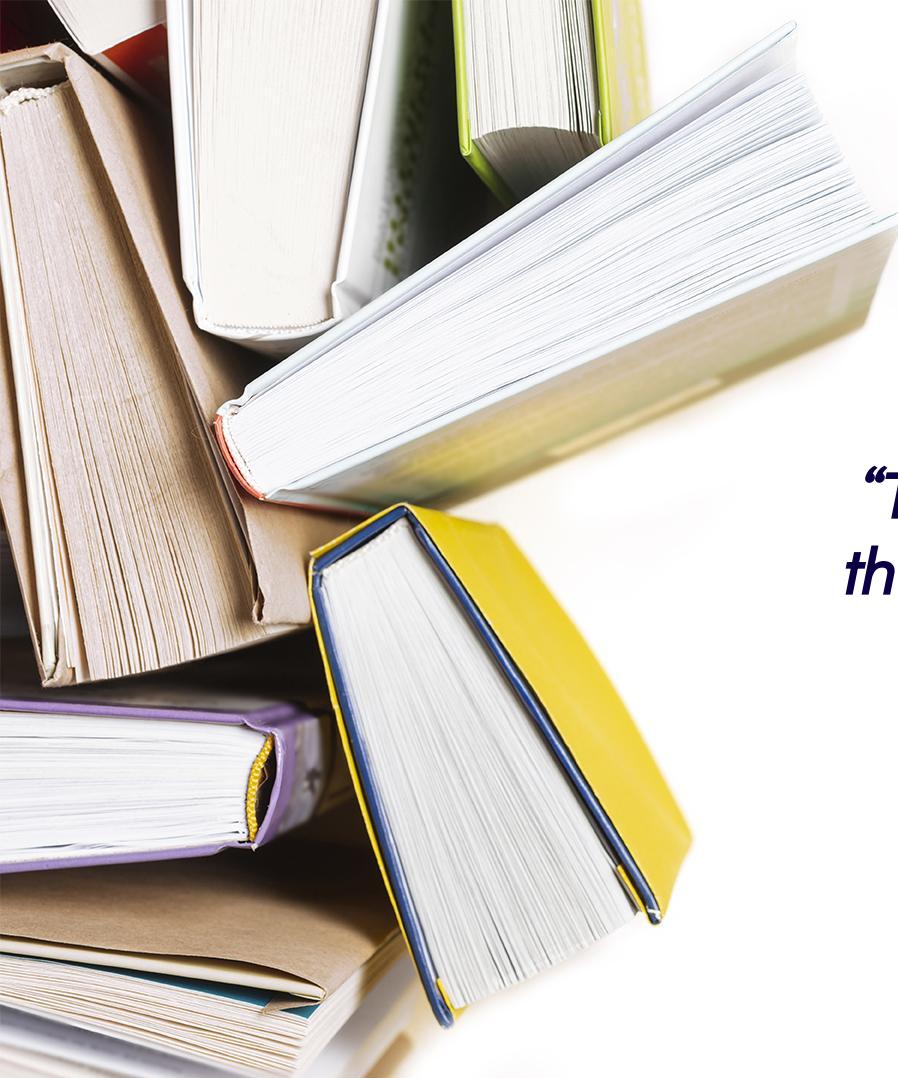
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“The more that you read, the more things you will know. The more you learn, the more places you’ll go.”

-Dr. Seuss,

“I Can Read With My Eyes Shut!”



01

Objectives:

Understand how and why
children's text is important





250,000,000

Children Worldwide Can't Read!

-United Nations Report, 2014



Introduction

A good children's book not only offers a sense of JOY, but the LANGUAGE itself is crucial to childhood development
...here's why

Concept 1: Overview of Children's Books

- Strong characters that evoke strong emotion
- A story that teaches
- Mind-expanding thought, vocabulary and visuals

Concept 2: Importance in Childhood Development

- Improves concentration and memory
- Boosts critical thinking
- Develops empathy

02

Methodology:

Pre-processing Data
& EDA



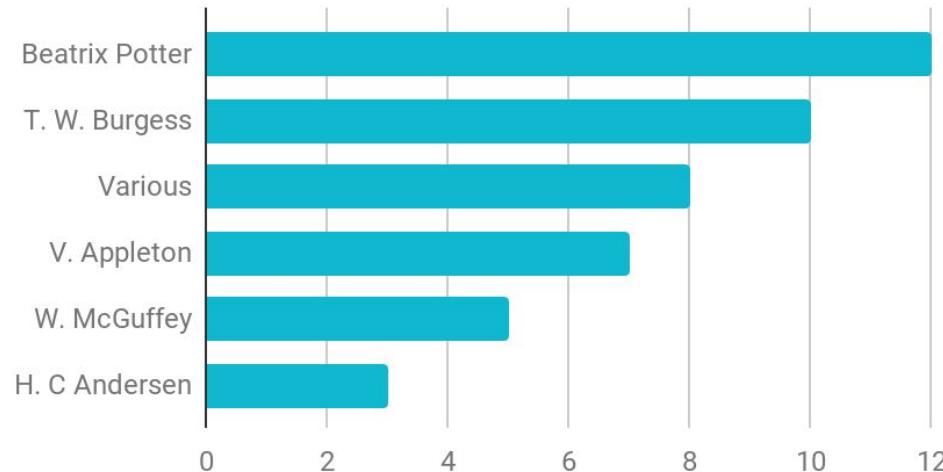


The Data

1. **Data Source**
The Gutenberg Project
2. **Data Cleaning**
Initial Insights
3. **EDA**
Authors, Books, Text

The AUTHORS

Authors With the Most Number of Books



★ Beatrix Potter

★ T.W. Burgess

Their TEXT

Beatrix Potter

1

pigling

Thornton W.
Burgess

fox

2

duchess

frog

3

flopsy

prickly

4

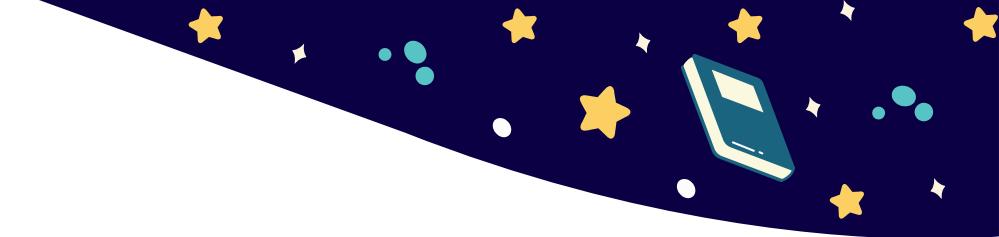
kitten

bear

5

mice

meadow



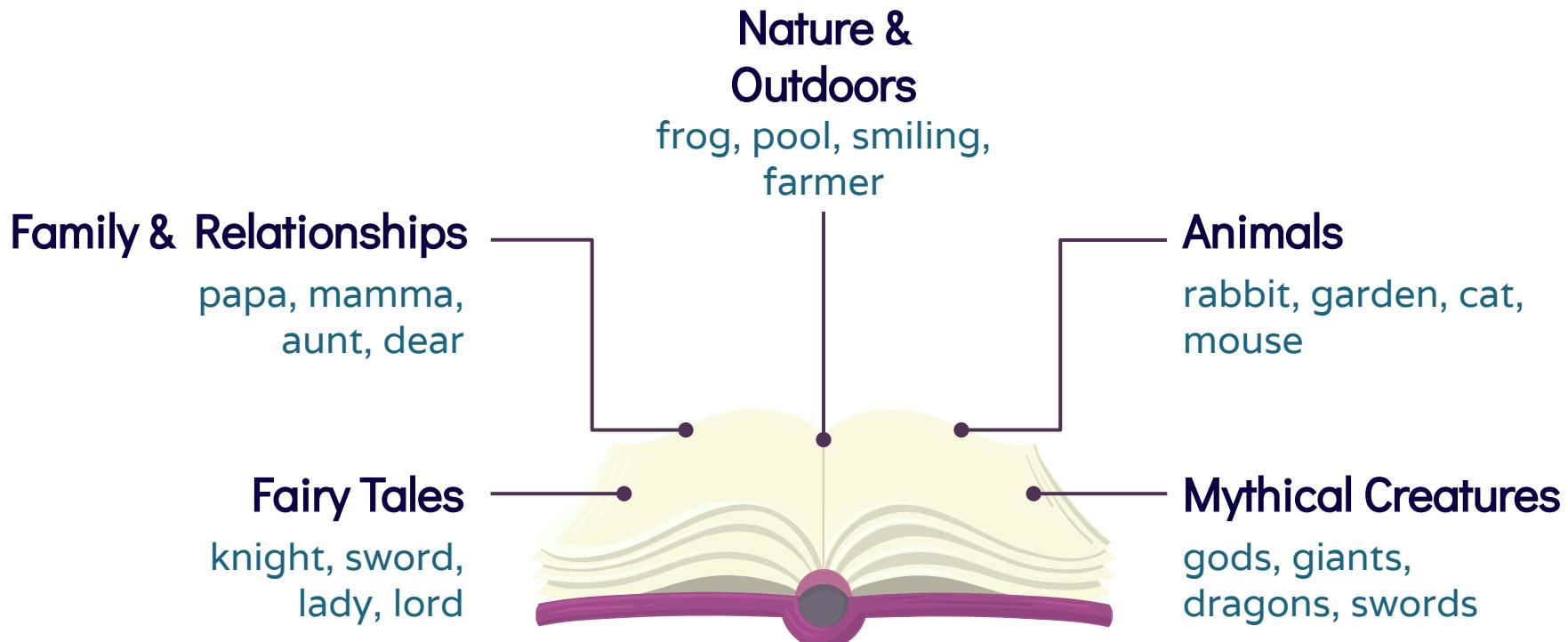
03

Results Analysis:

Interpreting NMF Topic
Modeling Results



Main Topics



Cross-Topic Words: Frog + Animals

Documents: “The Adventures of Grandfather Frog” By: Thornton W. Burgess

Text: “*Grandfather frog goes out to see the great world.*”

“*Grandfather frog is stubborn.*”

“*Grandfather Frog keeps on.*”

(frog, 314 times)

Cross-Topic Words: Frog + Nature

Document: “The Tale of Solomon Owl” By: Arthur Scott Bailey

Text: *“What shall I do?” asked Solomon Owl. “Insects are scarce at this season of the year. Of course, there are frogs—but I don’t seem to care for them. And there are fish—but they’re not easy to get, for they don’t come out of the water and sit on the bank, as the frogs do.”*

(frog, 49 times)

04

Conclusion:

Practical Applications



In Summary:

- Hundreds of millions of primary school age children need books
- NLP education and techniques can and should be available worldwide
- These first stories shape the way we learn and cope in the future
- We all globally benefit from this

Future Steps & Applications

- Are parents being educated on this?
 - From preschool/primary schools
 - How can we get this to most vulnerable?
- Study NLP data in early childhood development centers
- Look at book trends over time
 - Make predictions
 - Help other countries



Recommendations



Rabbit

“The Tale of Peter Rabbit”



Frog

“The Adventures of Grandfather Frog”



Princesses

“The Fairy Book”



Knights

“Hero-Myth and Legends”



Mamma

“The Fairy Godmothers and Other Tales”



Farmer

“The Adventure of Buster Bear”

“Today a reader, tomorrow a leader.”

-Margaret Fuller



Alternative Resources:

- A. Scholarly Articles on Child Development Research
 - a. connection between language and reading in children
 - b. "How Reading Books Fosters Language Development Around the World" - David K. Dickinson et al.
 - i. <https://downloads.hindawi.com/archive/2012/602807.pdf>

- B. Lots of books on Amazon!
 - a. "We all want our children to grow up in a safe and happy world where they will learn and play, make friends and be free of stress, don't we? If only that could be the case for all our children."





Thanks!

Any questions?

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