

The background is a watercolor-style illustration of a magical battle. On the left, a wizard with a long white beard and a dark robe is casting a spell, with a bright red, star-shaped magical effect emanating from his wand. A glowing white ring of light is visible in the air. On the right, a character in a blue and white striped shirt is being hit by a green, fish-like magical creature. The scene is set against a backdrop of soft, hazy mountains and a bright, glowing light source in the upper right corner.

# A Visualization of the **The Spells** of the **Wizarding World**

by Valerie Lemuth & Johanna Sacher

Artwork by Jim Kay - from the illustrated  
Harry Potter Novels, written by J.K.Rowling

# The Idea

The Spells of the Wizarding World

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Valerie Lemuth & Johanna Sacher

Using the Spells of the Harry Potter Books



# The Idea

The Spells of the Wizarding World

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## Using the Spells of the Harry Potter Books

- » First introduction of each spell
- » Number of Uses



# The Idea

The Spells of the Wizarding World

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## Using the Spells of the Harry Potter Books

- » First introduction of each spell
- » Number of Uses
- » Development of Advancement/Danger over time



# The Question

The Spells of the Wizarding World

Valerie Lemuth & Johanna Sacher

Is the number of used spells – and especially curses –  
increasing within the progress of the story?



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# Creating the Data

The Spells of the Wizarding World

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Nothing suitable on the web



# Creating the Data

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Nothing suitable on the web

Created dataset ourselves

» Using Python and prior knowledge of the material





# The Dataset

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Key

⇒ Spell





# The Dataset

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## Key

» Spell

## Values

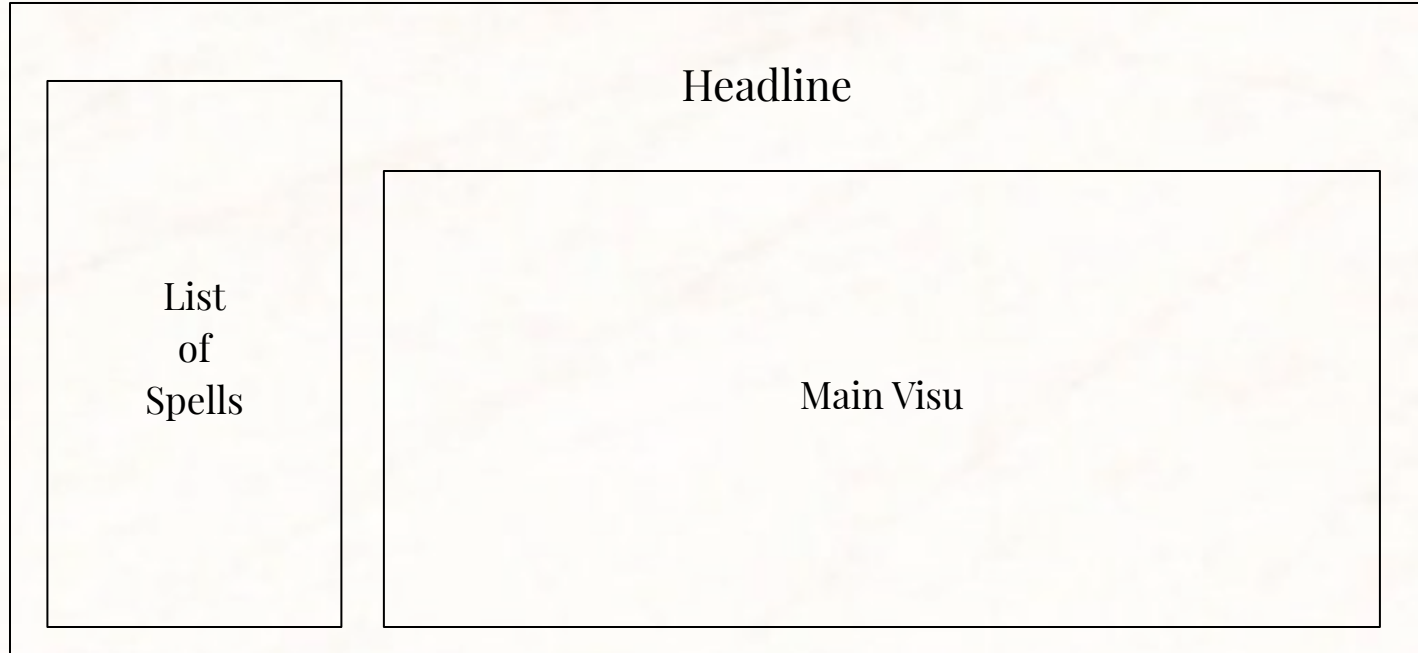
- » Number of occurrences per book
- » Effect
- » Type
- » Category
- » Danger
- » Link for further information



# The Layout

The Spells of the Wizarding World

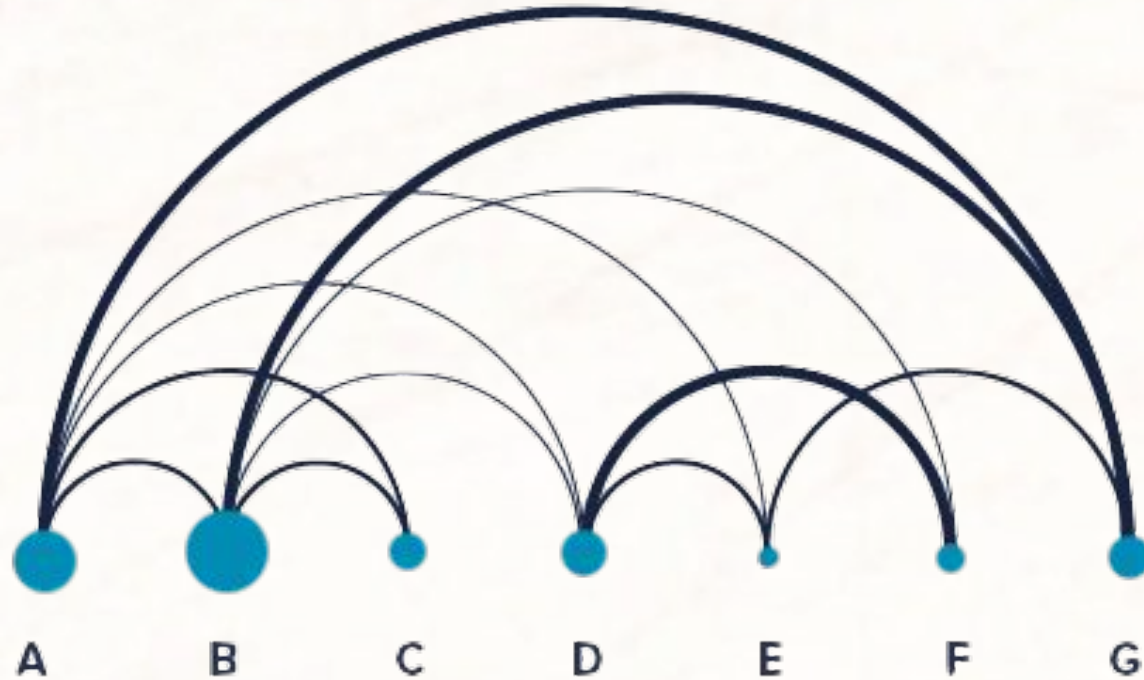
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# The Layout | Arc Diagram

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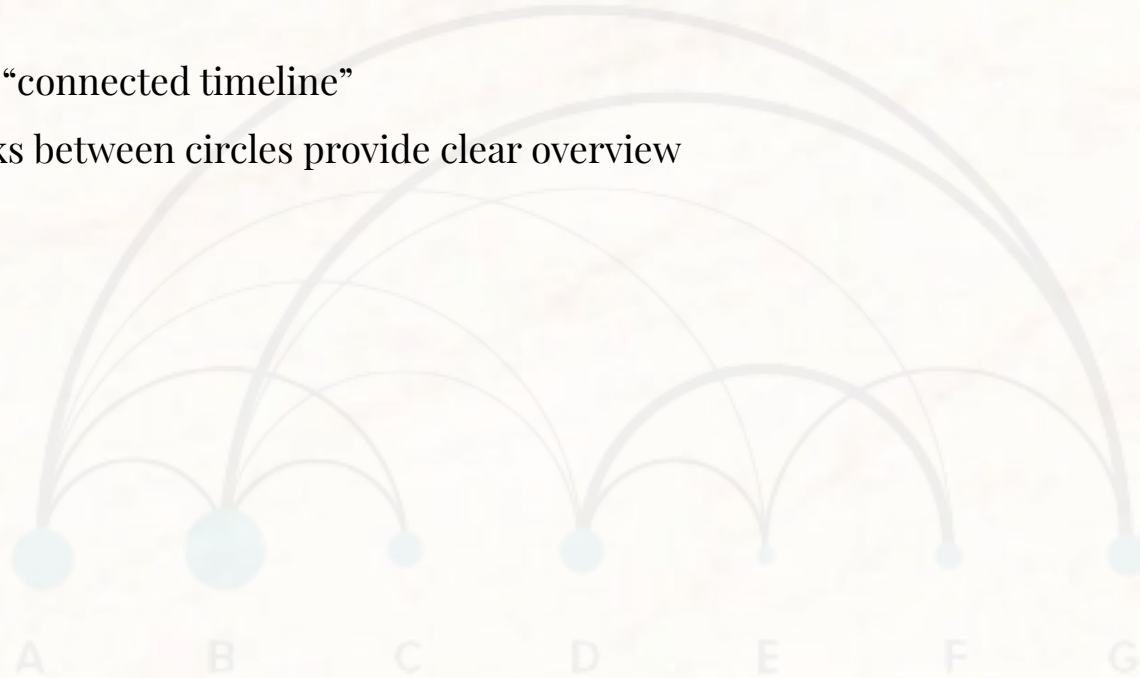
# The Layout | Arc Diagram

The Spells of the Wizarding World

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Feeling of a “connected timeline”

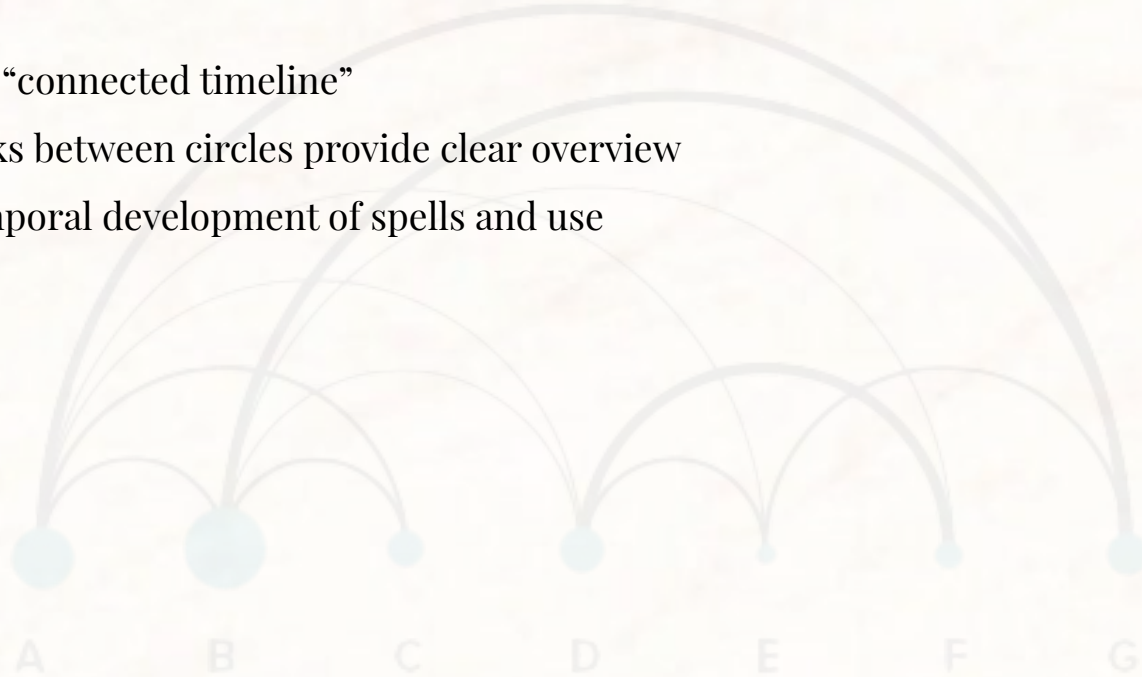
» Links between circles provide clear overview



# The Layout | Arc Diagram

Feeling of a “connected timeline”

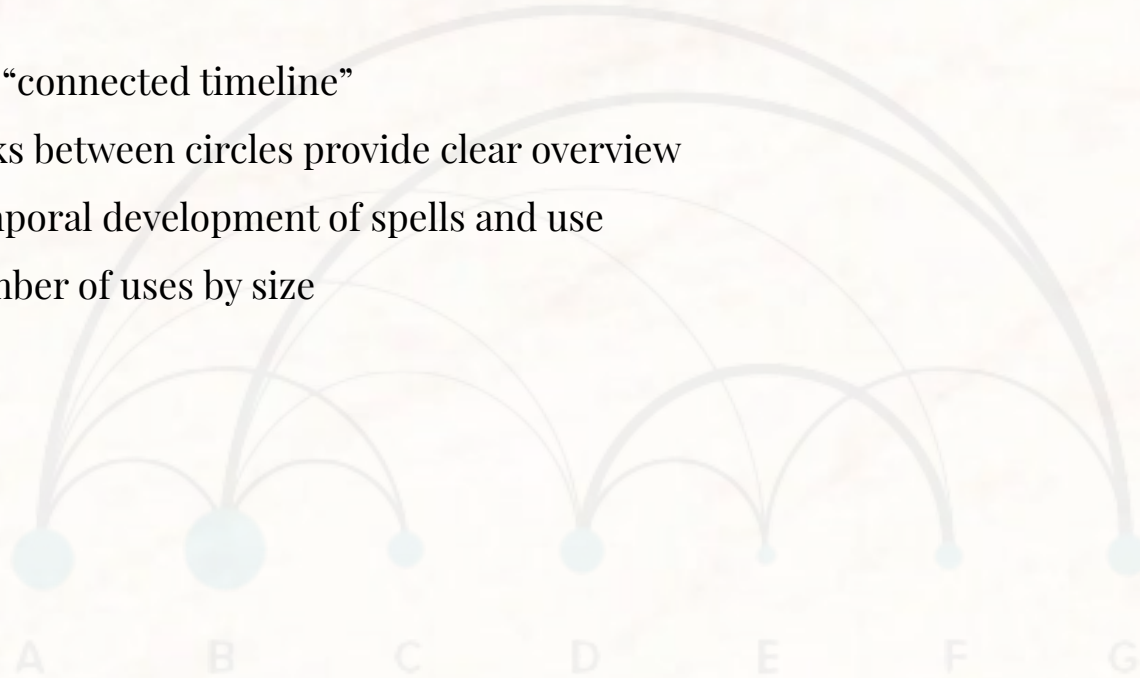
- » Links between circles provide clear overview
- » Temporal development of spells and use



# The Layout | Arc Diagram

Feeling of a “connected timeline”

- » Links between circles provide clear overview
- » Temporal development of spells and use
- » Number of uses by size





# The Layout

The Spells of the Wizarding World

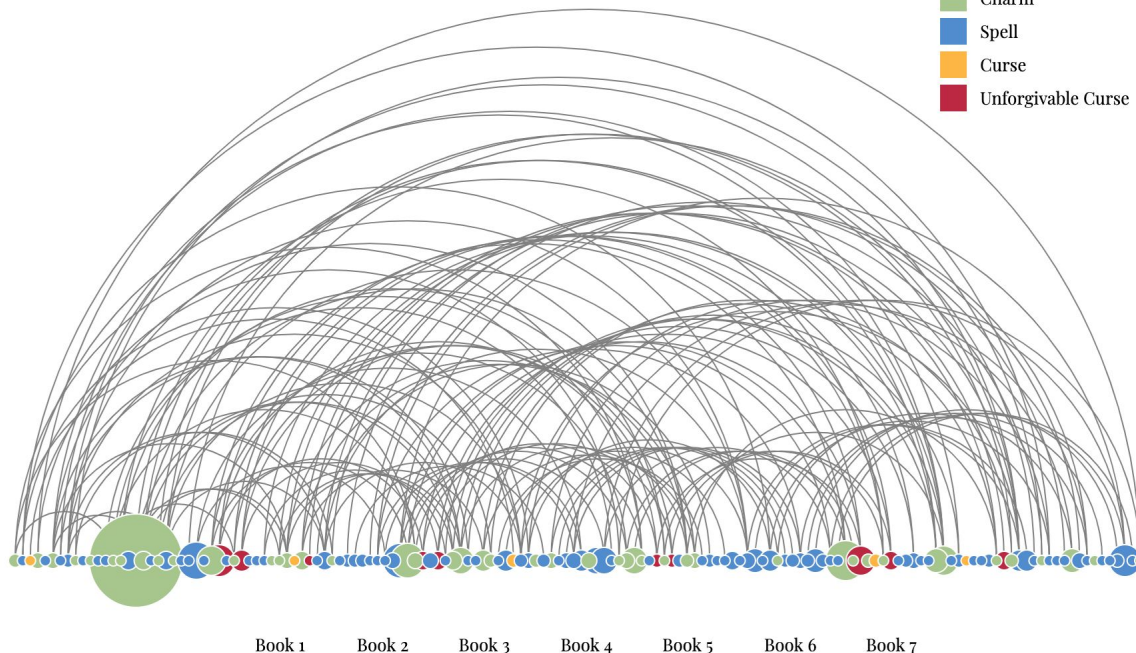
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## The Spells of the Wizarding World

### All Spells

Accio  
Aguamenti  
Alohomora  
Anapneo  
Aparecium  
Avada Kedavra  
Avis  
Cave Inimicum  
Colloportus  
Confringo  
Confundo  
Crucio  
Deletrius  
Densaugeo  
Deprimo  
Descendo  
Diffindo  
Dissendium  
Duro  
Engorgio  
Episkey  
Erecto  
Expecto Patronum  
Expelliarmus  
Expulso

Charm  
Spell  
Curse  
Unforgivable Curse





# The Layout | List

The Spells of the Wizarding World

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## All Spells

Accio  
Aguamenti  
Alohomora  
Anapneo  
Aparecium  
Avada Kedavra  
Avis  
Cave Inimicum  
Colloportus  
Confringo  
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Descendo  
Diffindo  
Dissendium  
Duro  
Engorgio  
Episkey  
Erecto  
Expecto Patronum  
Expelliarmus  
Expulso

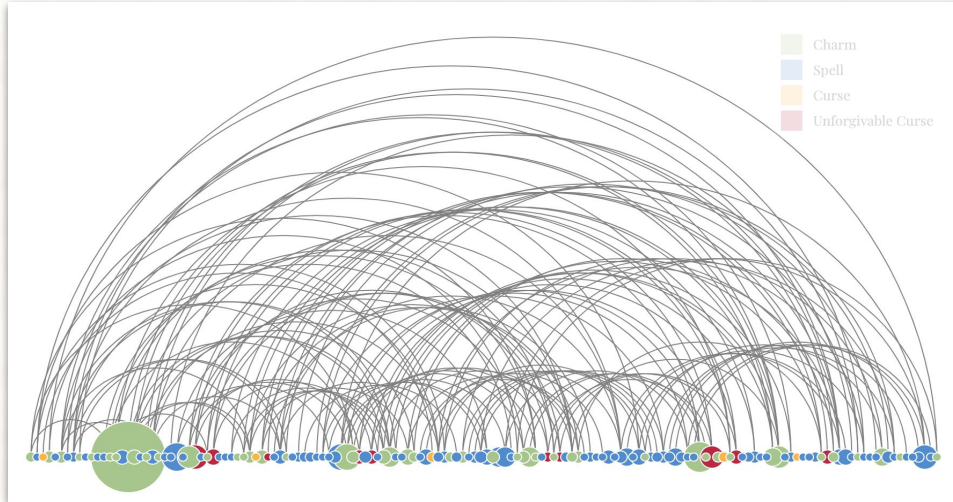
- All spells from the books
- Scrollable
- Alphabetically sorted
- Headline shows selected filters



# The Layout | Timeline

The Spells of the Wizarding World

Valerie Lemuth & Johanna Sacher



- All spells from 1. to 7. book
- Each spell in a book = 1 Circle
- Size = Number of uses
- Color = Type





Connections between all occurrences of a spell



# The Layout | Legend

The Spells of the Wizarding World

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	Charm
	Spell
	Curse
	Unforgivable Curse

## 4 Types of Spells

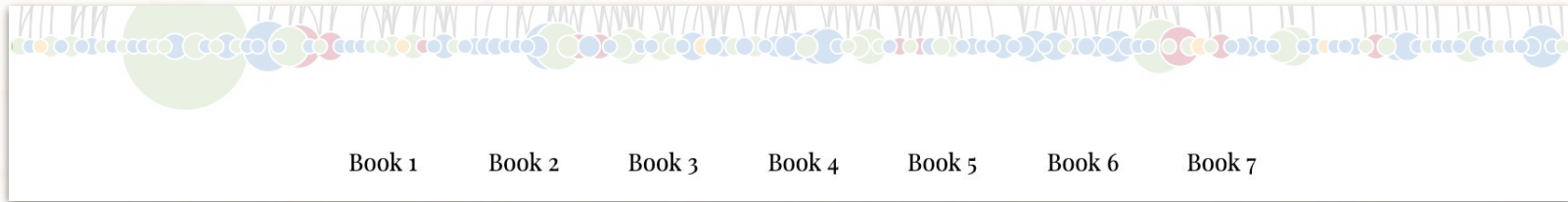
» For filtering



# The Layout | Books

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## All 7 Books

- » For filtering
- » Shows the idea of the timeline, but is not aligned
  - » Would be too cramped



# The Visualization

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**Basic Interactions**

**Nested Interactions**



# The Visualization

The Spells of the Wizarding World

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## Basic Interactions

- Hover » information through tooltip

## Nested Interactions



# The Visualization

The Spells of the Wizarding World

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## Basic Interactions

- Hover » information through tooltip
- Click » select and highlight

## Nested Interactions





# The Visualization

The Spells of the Wizarding World

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Valerie Lemuth & Johanna Sacher

## Basic Interactions

- Hover » information through tooltip
- Click » select and highlight
- Click again » deselect

## Nested Interactions



# The Visualization

The Spells of the Wizarding World

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## Basic Interactions

- Hover » information through tooltip
- Click » select and highlight
- Click again » deselect
  - » Selecting an element affects the other components, they adapt or get filtered

## Nested Interactions



# The Visualization

The Spells of the Wizarding World

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## Basic Interactions

- Hover » information through tooltip
- Click » select and highlight
- Click again » deselect
  - » Selecting an element affects the other components, they adapt or get filtered

## Nested Interactions

- Multiple filters can be applied over each other
  - » To narrow down the search



# The Conclusion

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Is the number of used spells – and especially curses –  
increasing within the progress of the story?



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Is the number of used spells – and especially curses –  
increasing within the progress of the story?

⇒ Yes!

An illustration of Sirius Black and James Potter in a red boat on a body of water. Sirius is in the foreground, holding a pink umbrella, while James is in the background, reaching out towards a flock of seagulls flying in the sky. The scene is set against a backdrop of a cloudy sky and distant mountains.

# Thank you!

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