CULTURAL ACCUMULATION AND IMPROVEMENT IN ONLINE FAN FICTION

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INTERDISCIPLINARY WORK

CULTURAL EVOLUTION

+

COMPUTATIONAL LITERARY STUDIES

testing cultural evolution theory (and its specificity in the digital age)

modelling literary history

WHAT IS CULTURAL EVOLUTION?

- ✓ Quantitative and evolutionary-inspired approach to the study of culture.
- ✓ How does culture influence human behaviour?
- ✓ How do cultural items spread, become successful, disappear?

CUMULATIVE CULTURE

The accumulation of increasingly effective modifications over time without reverting back to prior, less effective states.

3 FEATURES OF CUMULATIVE CULTURE

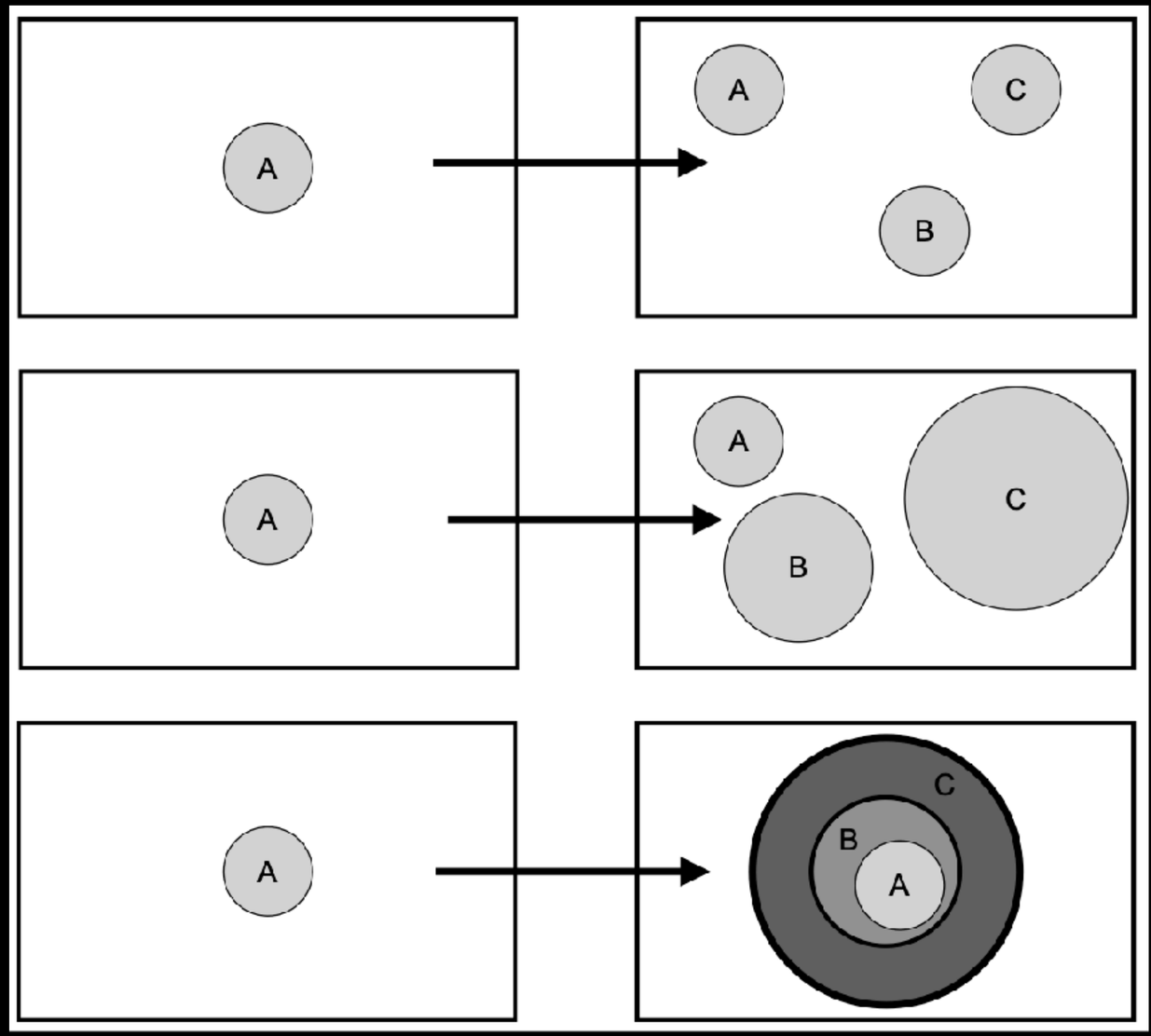
Accumulation

+

Improvement

+

Ratcheting

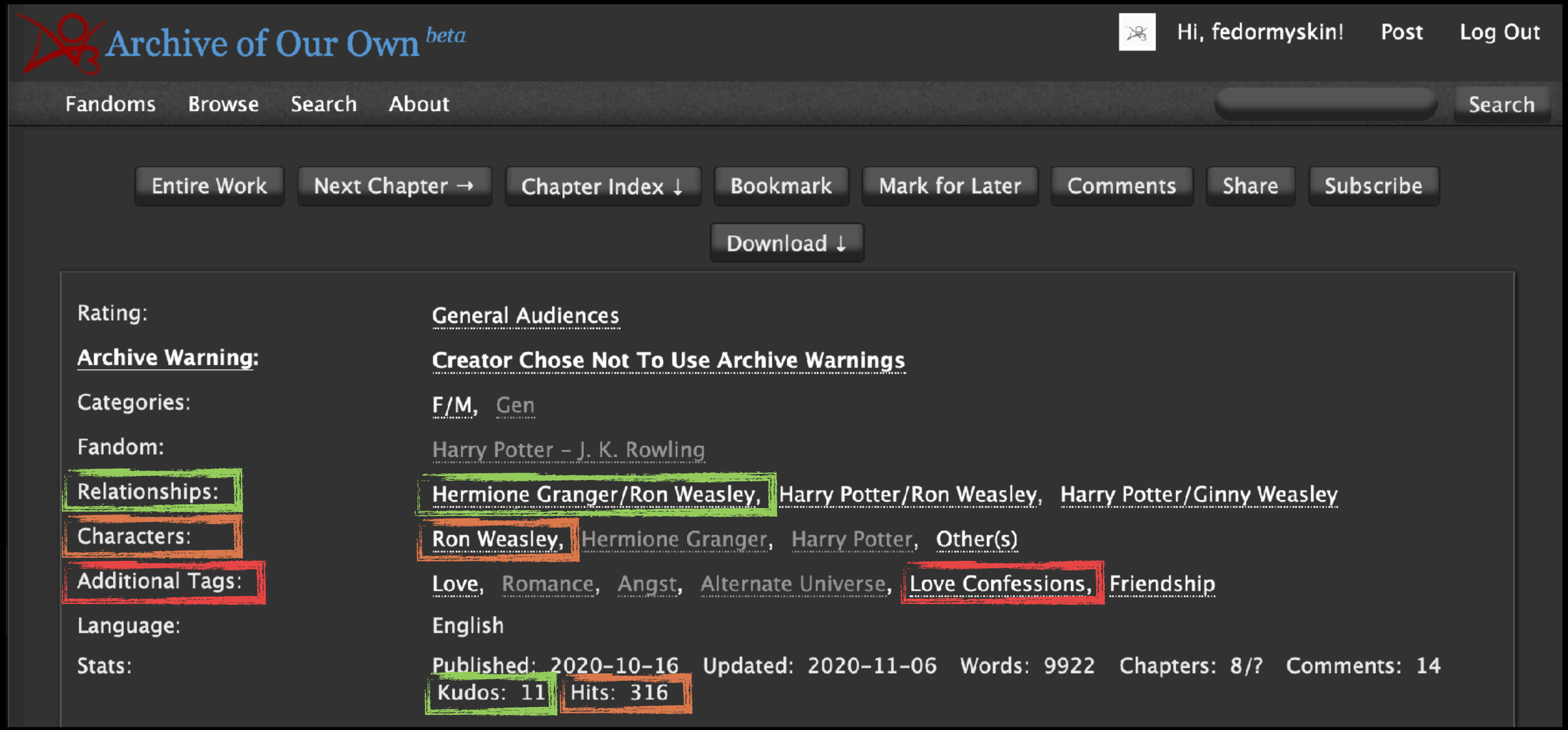


CUMULATIVE CULTURAL EVOLUTION IN FANFICTION

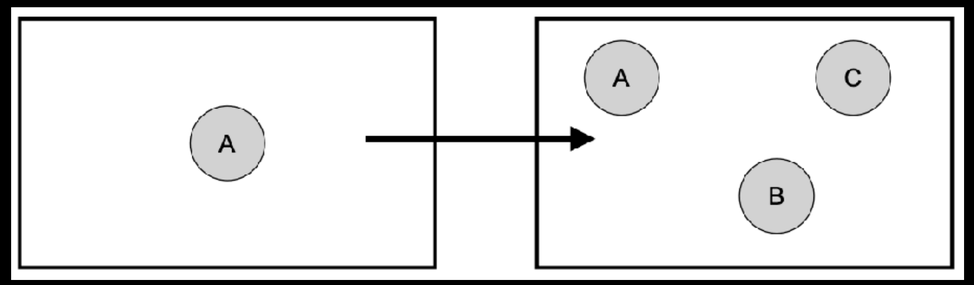
"Folks' reappropriation of contemporary myths owned by corporations" (H. Jenkins)

Community of readers and writers who reinterpret stories and further transmit modifications of them.

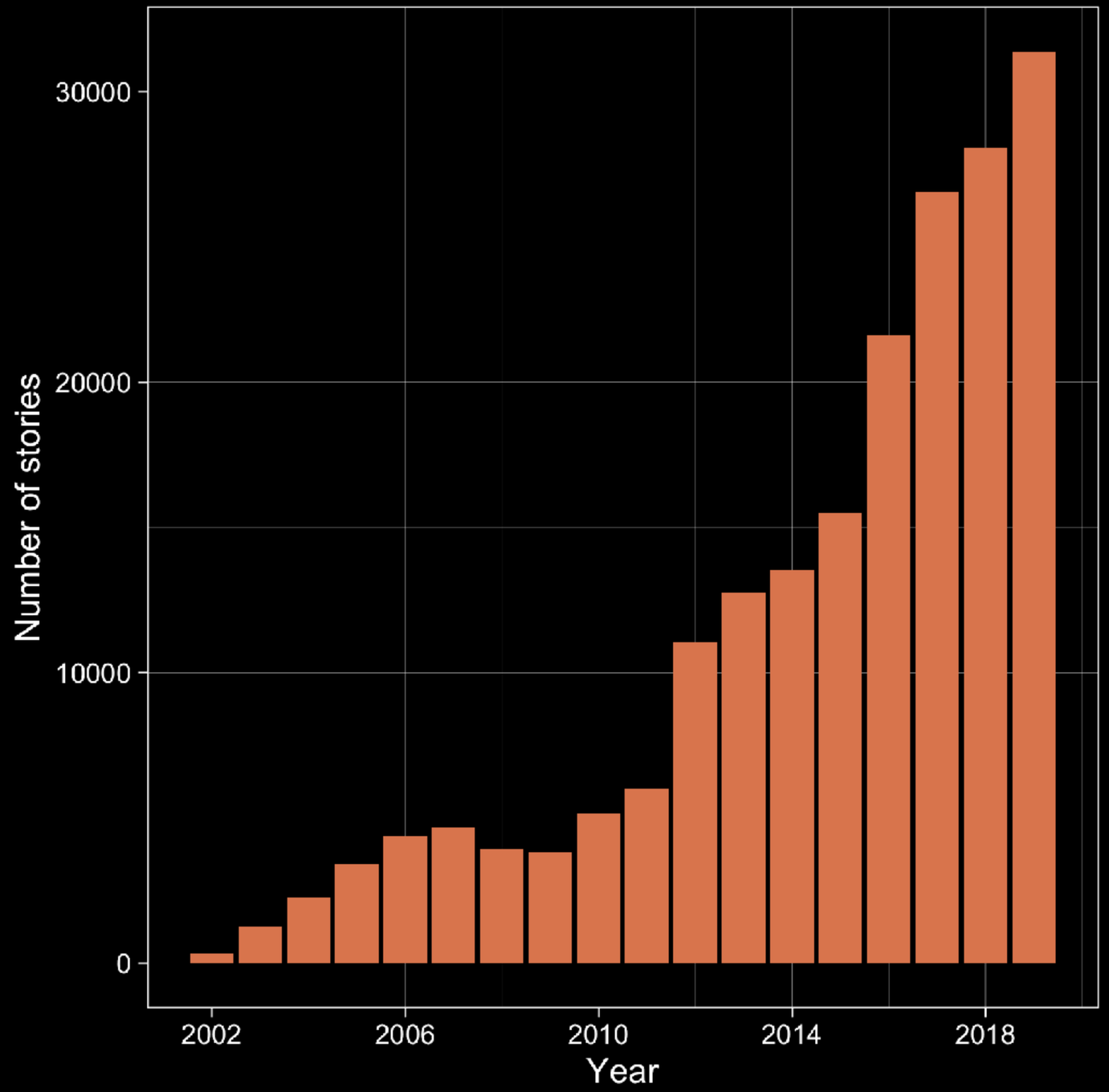
AO3 METADATA



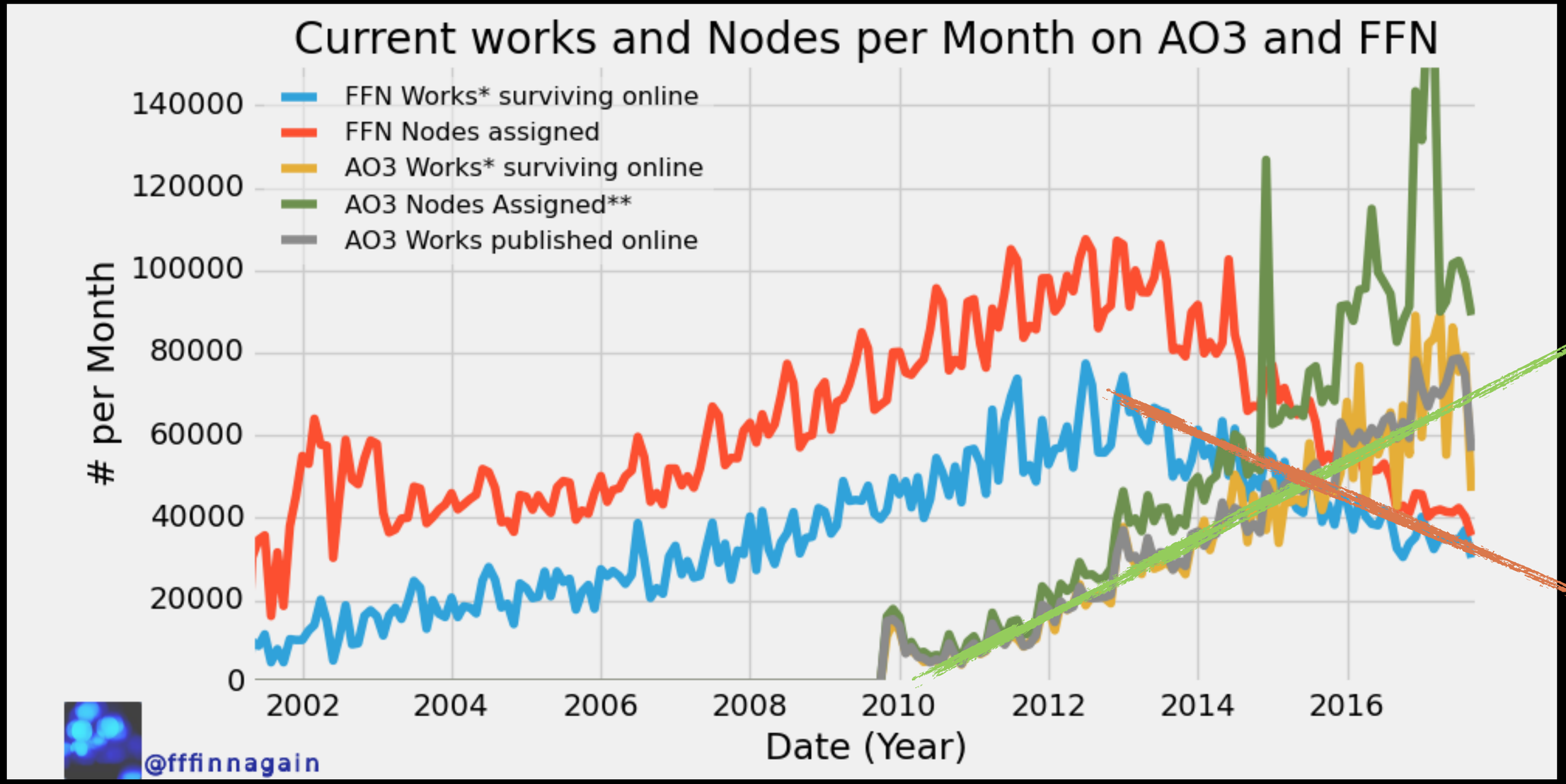
ACCUMULATION OF STORIES



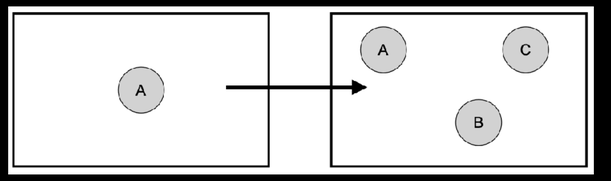
Harry Potter



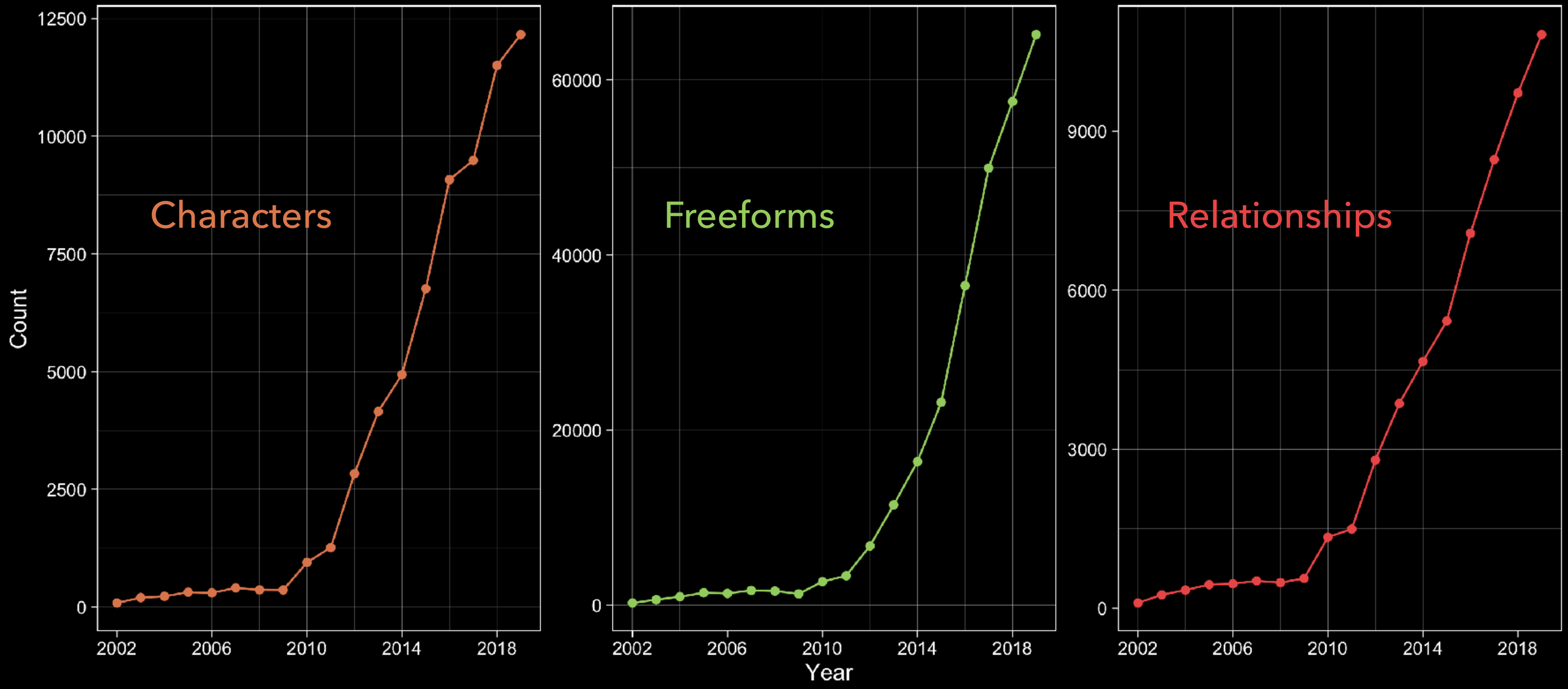
ACCUMULATION OF STORIES: AO3 VS. FANFICTION.NET



ACCUMULATION OF UNIQUE TAGS



Increase in diversification



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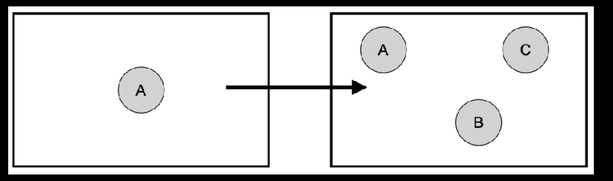
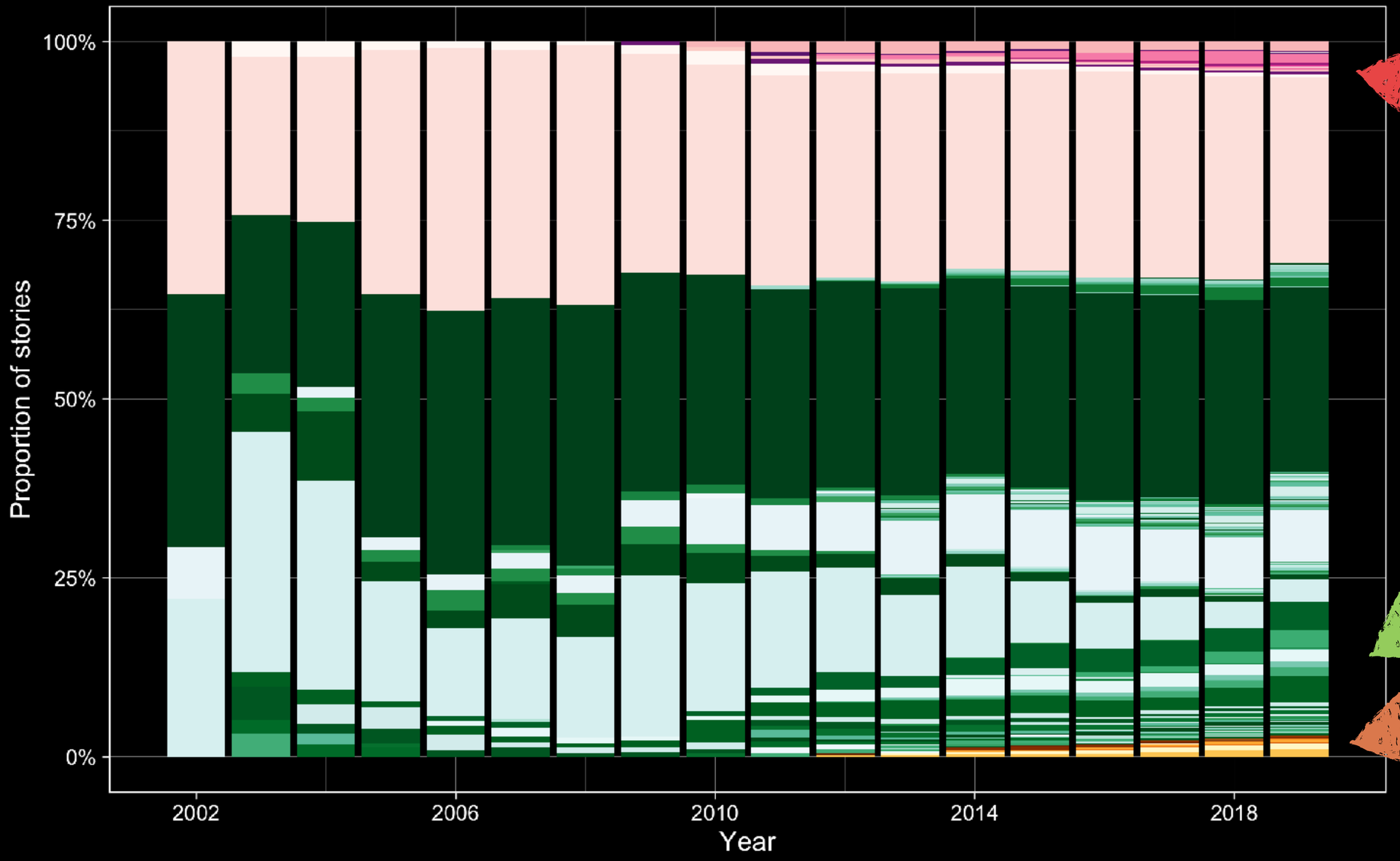




Draco

Increase in diversification

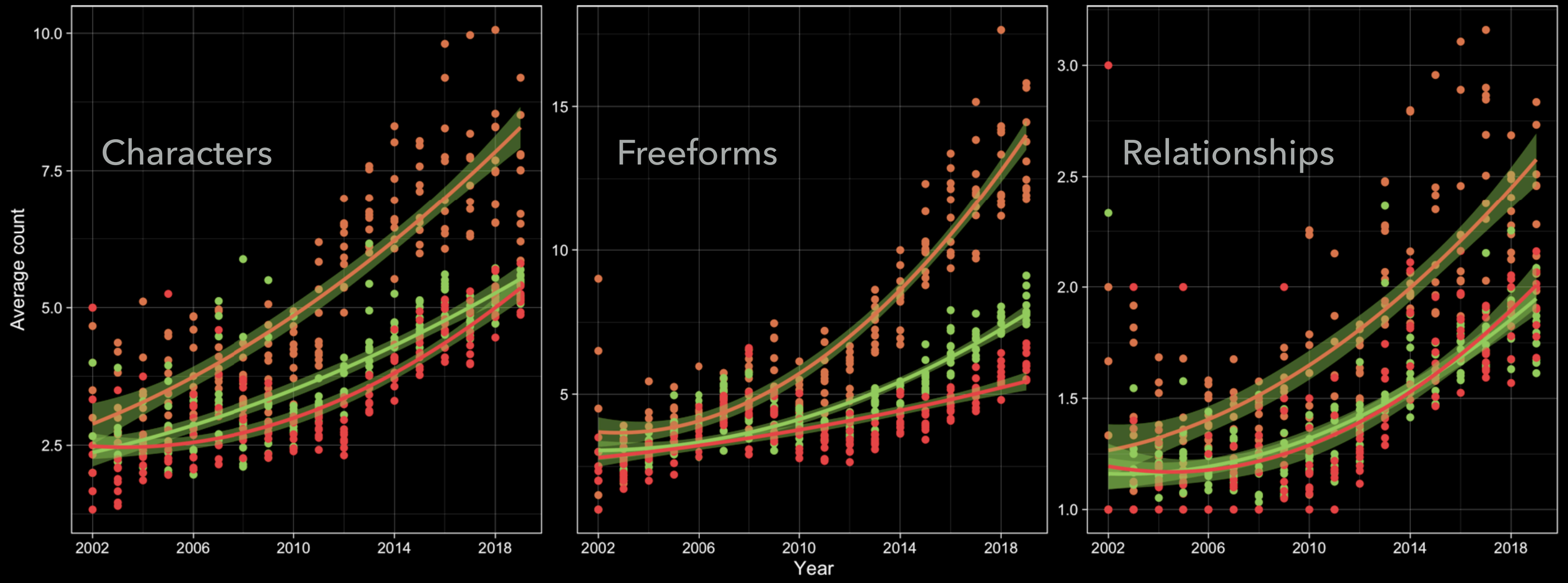
Harry

Hermione

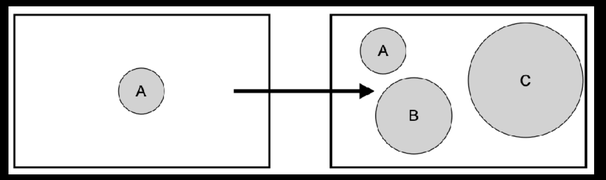
ACCUMULATION IN INDIVIDUAL STORIES

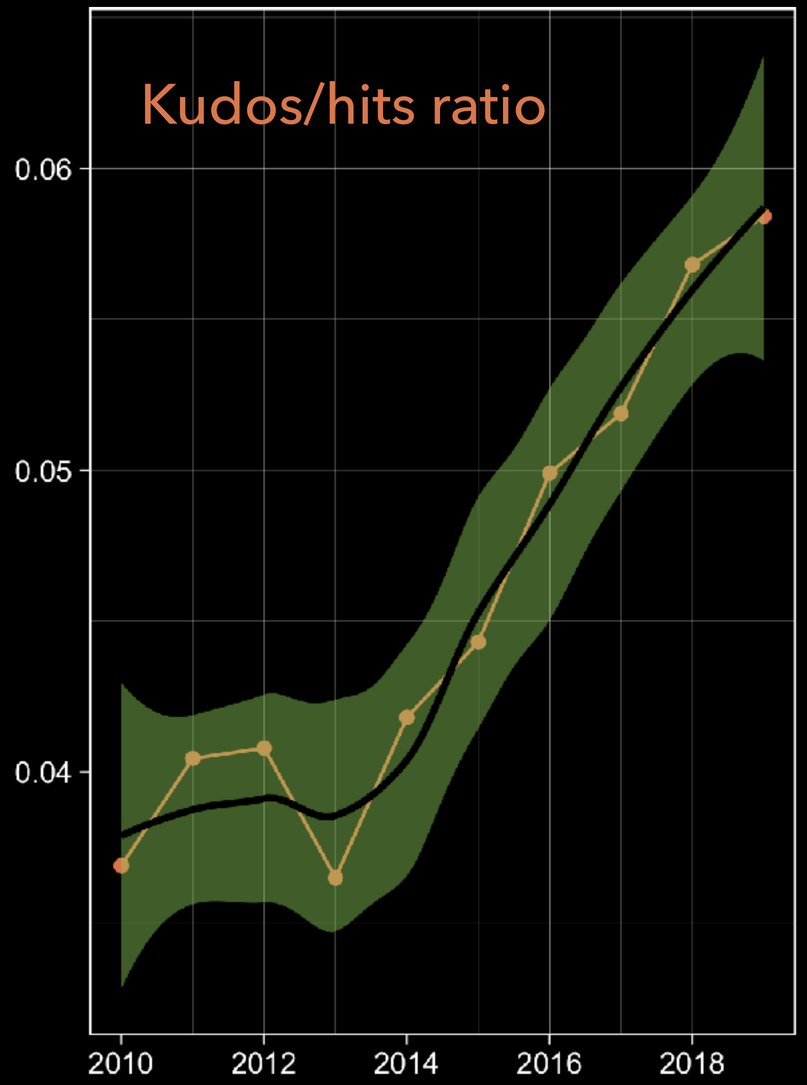
Increase in complexity of stories

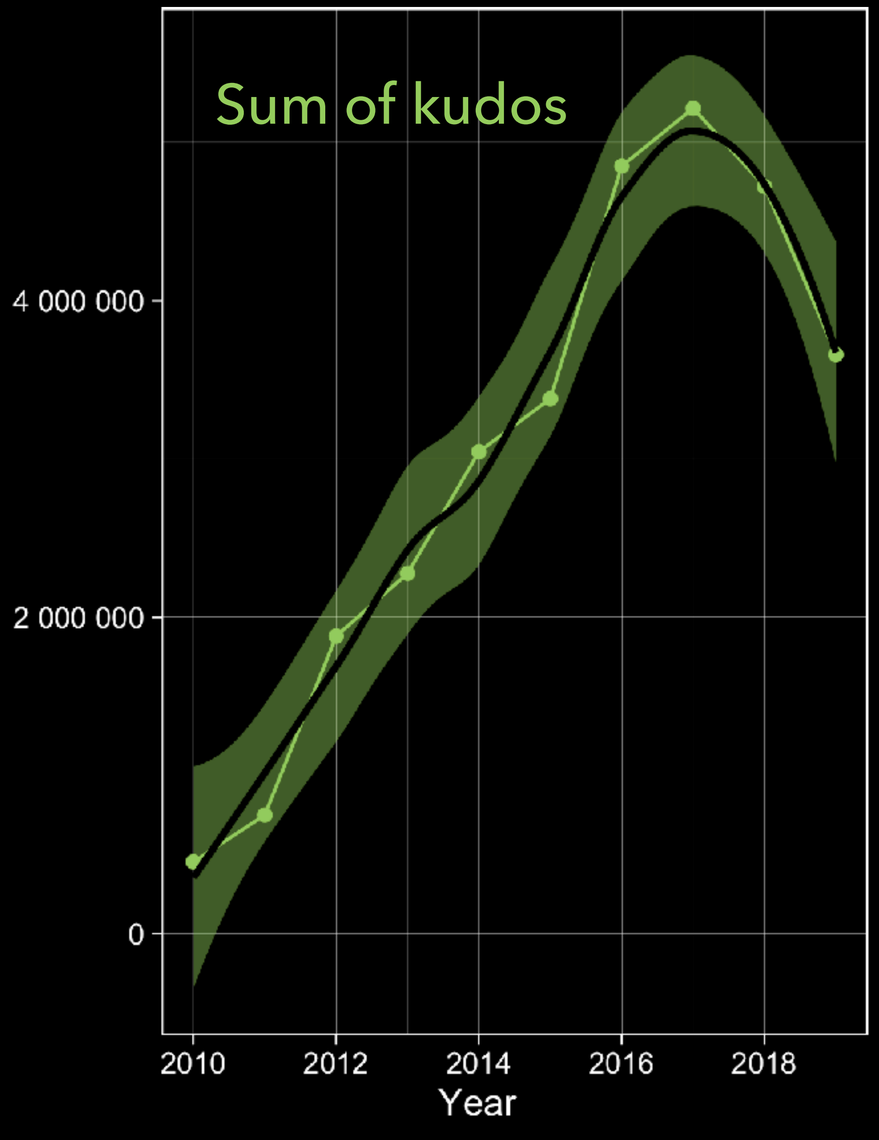
Percentiles:
- High kudos (91–100th)
- Mid kudos (46–55th)
- Low kudos (1–10th)

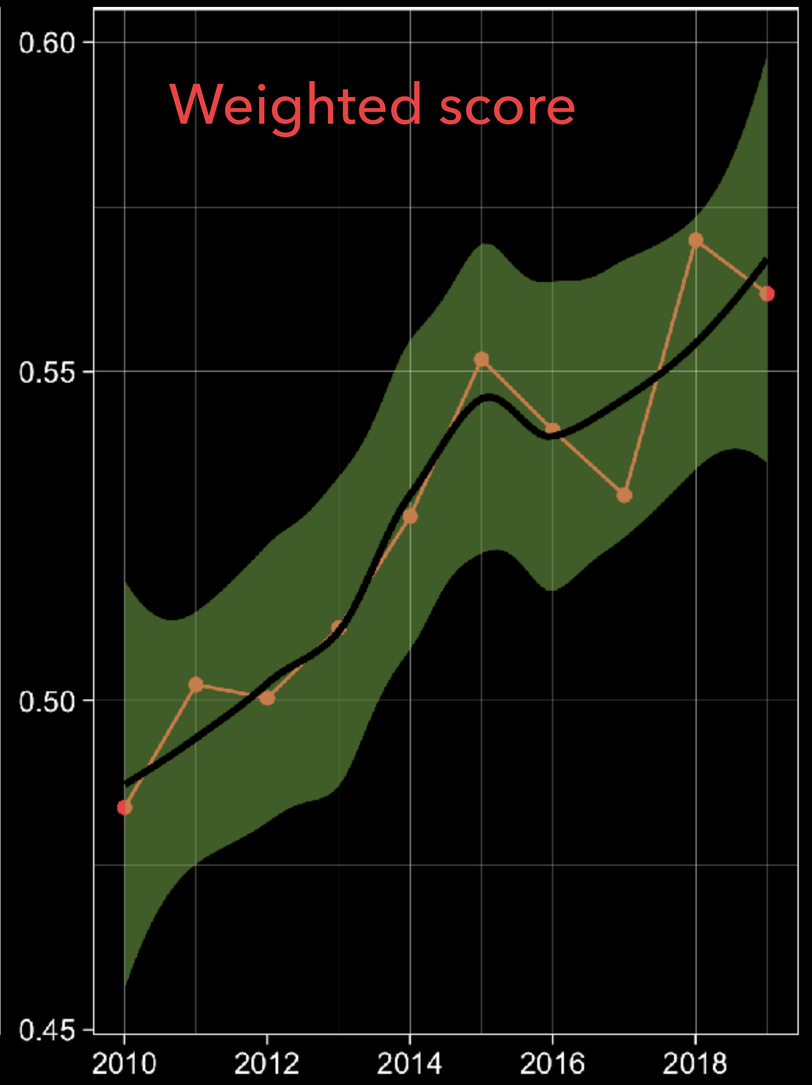


IMPROVEMENT









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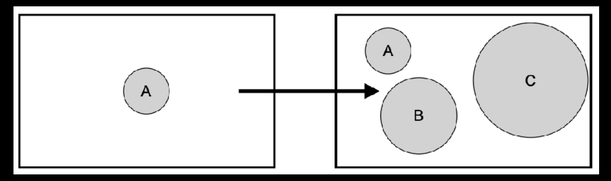
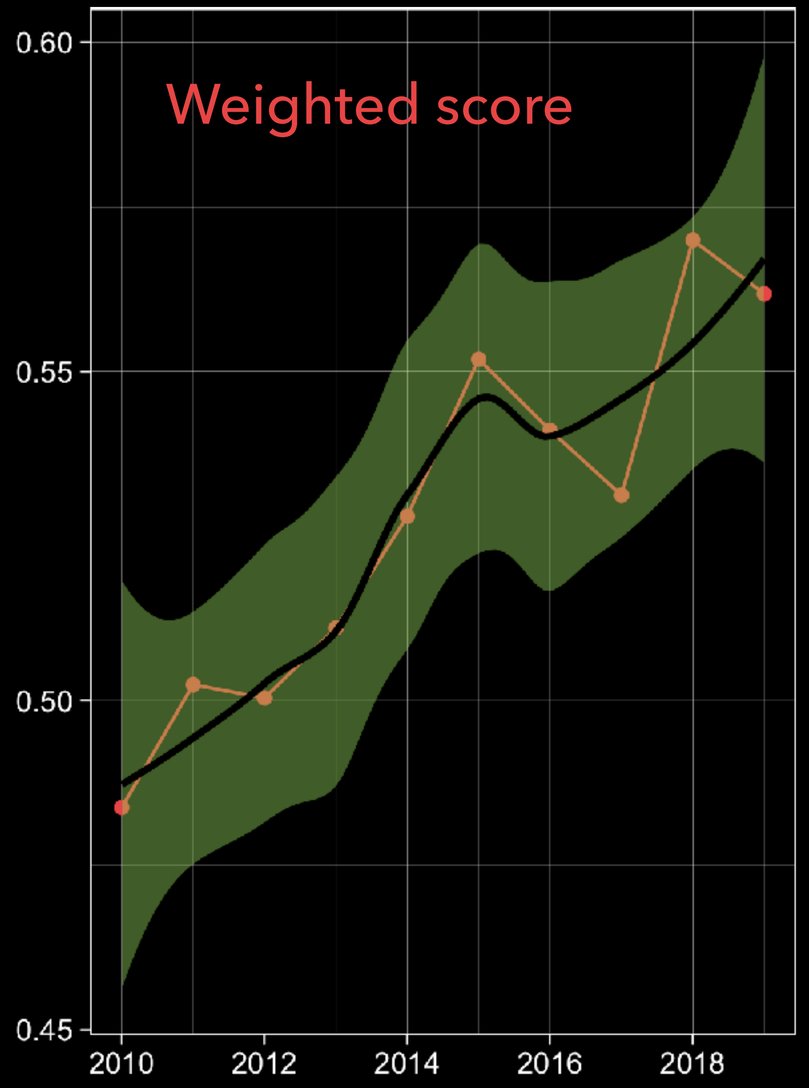


Kudos/hits ratio

$$S = wK + (1 - w) * K_{avg_year}$$

$$w = \frac{hits}{hits + hits_{avg_year}}$$



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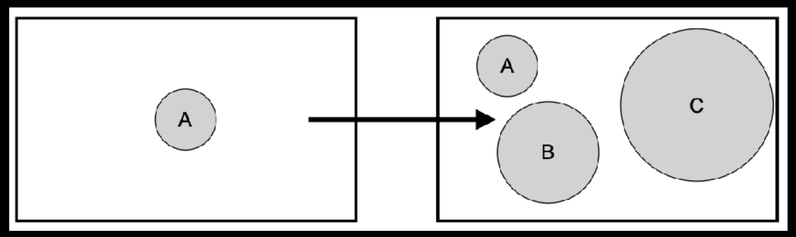
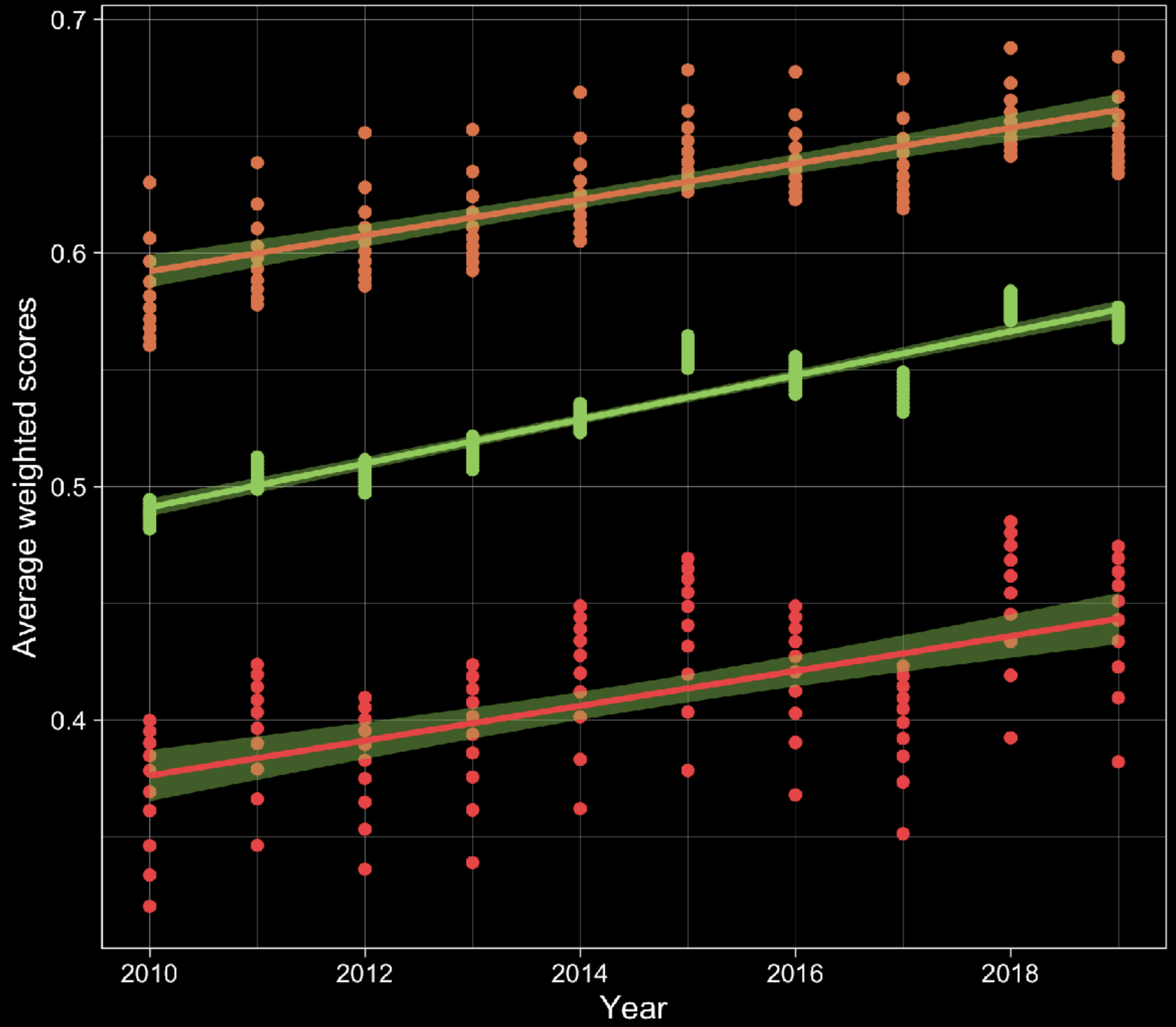
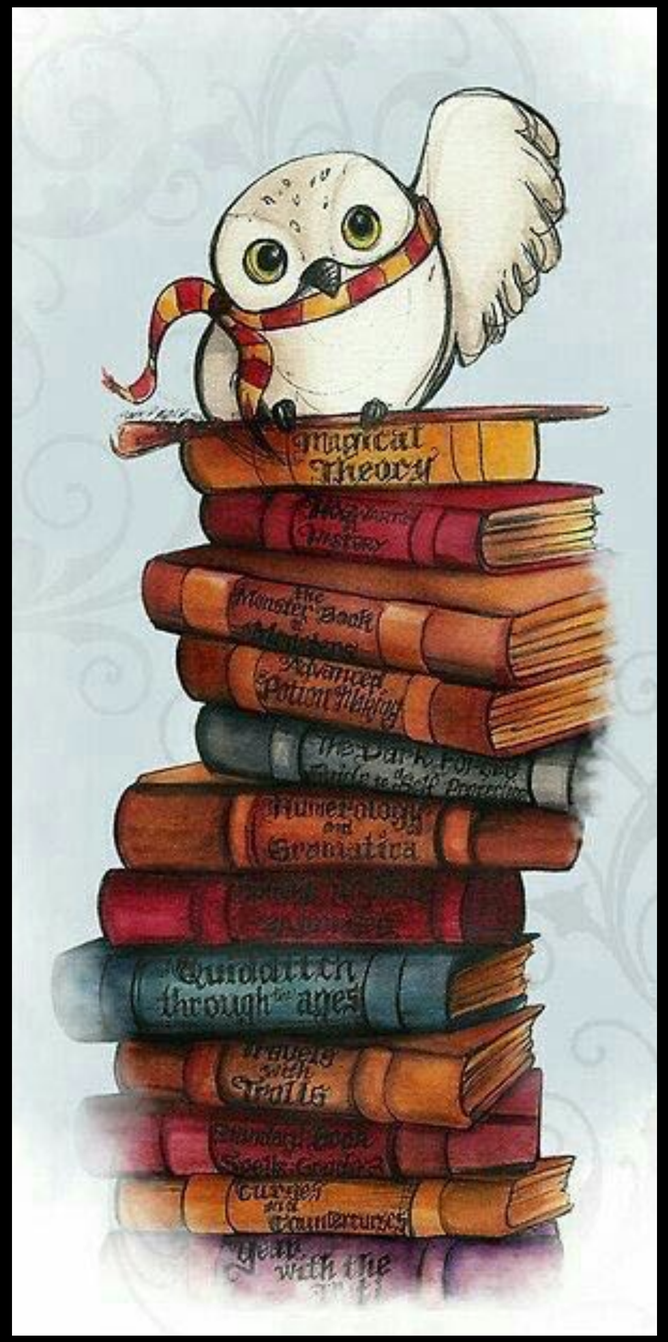


Percentiles:

- High score (91–100th)
- Mid score (46–55th)
- Low score (1–10th)





THANK YOU!

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