Absorbed in Goodreads
A Computational Approach for the Study of Online Social Reading

Simone Rebora (University of Göttingen) simone.rebora@phil.uni-goettingen.de
Piroska Lendvai (University of Göttingen) piroska.lendvai@uni-goettingen.de
Moniek Kuipers (University of Basel) moniek.kuipers@unibas.ch

The Idea
Text mining the reviews published on social reading platforms (such as Goodreads) through the Story World Absorption Scale (SWAS)

The SWAS

Attention (α: .905)
A1: When I was finishing the story, I was surprised to see that time had gone by so fast.
A2: When I was reading the story, I was so absorbed in the story that I couldn’t hear what was happening around me.
A3: I felt absorbed in the story.
A4: The story gripped me in such a way that I could close myself off for things that were happening around me.
A5: I was so absorbed in the story that I didn’t notice that my restaurant had closed.
A6: I was reading the story, so much so that I felt like I had taken a trip to the world of the story.

Emotional Engagement (α: .914)
E1: Sometimes I really think I want to punch George R.R. Martin in the face. Really? If I were to ever meet him, I would imagine that he would be a huge emotional struggle to decide whether to cry on him, and leap into his arms thanking him for creating such a marvelous book series...or punch him in the face for making me wait so long in between books.
E2: I felt connected to the main character in the story.
E3: I felt connected to the main character in the story.
E4: I felt sympathy for the main character.
E5: I could imagine what the world in which the story took place looked like.
E6: I really felt such a deep connection to certain characters, really invested in their stories and their fates.

The Goodreads Reviews

"You know, after reading the book, I almost ripped out my hair from my head. Shouting like a crazy fitting is happening. I’m so absorbed in the world Martin produced out of his mind..." (Rebora, 2015)
"I felt absorbed in the story..." (Goettingen, 2015)
"Sometimes I really think I want to punch George R.R. Martin in the face. Really? If I were to ever meet him, it would be a huge emotional struggle to decide whether to cry all over him and leap into his arms thanking him for creating such a marvelous book series...or punch him in the face for making me wait so long in between books. Really. It’s a toss up at this point. Because honestly, this book is bloody brilliant! Hating character was most detailed and really felt such a deep connection to certain characters, really invested in their stories and their fates." (Kuipers et al., 2014)

Pre-Processing the Corpus (a BOW Approach)

- Build a dictionary based on the most frequent words in the SWAS and in the 241 matched sentences*

Tools Evaluation (Two Approaches)

Text Reuse Detection

Pre-Processing the Corpus (a BOW Approach)

- Expand the dictionary through word embeddings using word2vec in Gensim trained on the Goodreads Corpus (400M tokens) on top of the GoogleNews model (https://github.com/Emrald/word2vec-Gensim-News-vectors)

The Corpus

- 180 reviews of three blockbuster novels.
- 241 matches between Goodreads reviews and SWAS statements

Results were cross-checked by two annotators

The Procedure: Automated Pairing of Sentences

Goodreads Reviews

SWAS

18 Sentences

SWAS

Reviews

Sentences

realizes of sentences

realizes of sentences

OOP testing

OOP training

Tools Evaluation (Two Approaches)

Textual Entailment Recognition

- Produce More Training Material

"Mining Goodreads: a text similarity-based approach to measure reader absorption" PI: Moniek Kuipers, Univ. of Basel

- 18-months project, funded by SNSF
- Planned starting date: 1st December 2018
- 4 annotators working on the Goodreads corpus

The Goal(s)

Provide evidence for the theoretical assumptions that...
- fantasy’s “worldbuilding” (Wolf, 2012),
- romance’s “empathic identification” (Koopman & Hakemulder, 2015),
- or thriller’s “embodied simulation” (Gallese, 2007)
- enhance absorption

But also: show differences between reader’s gender
- or the effects of different rhetorical, conceptual, or contextual features of novels

Validate: the SWAS (which SWAS statements match more frequently with Goodreads reviews?)

Preliminary Manual Analysis

The SWAS

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