Computational approaches to narrative

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What is narrative?

Narrative, a working definition

"Narrative is the representation of an event or a series of events." (Porter 2008)
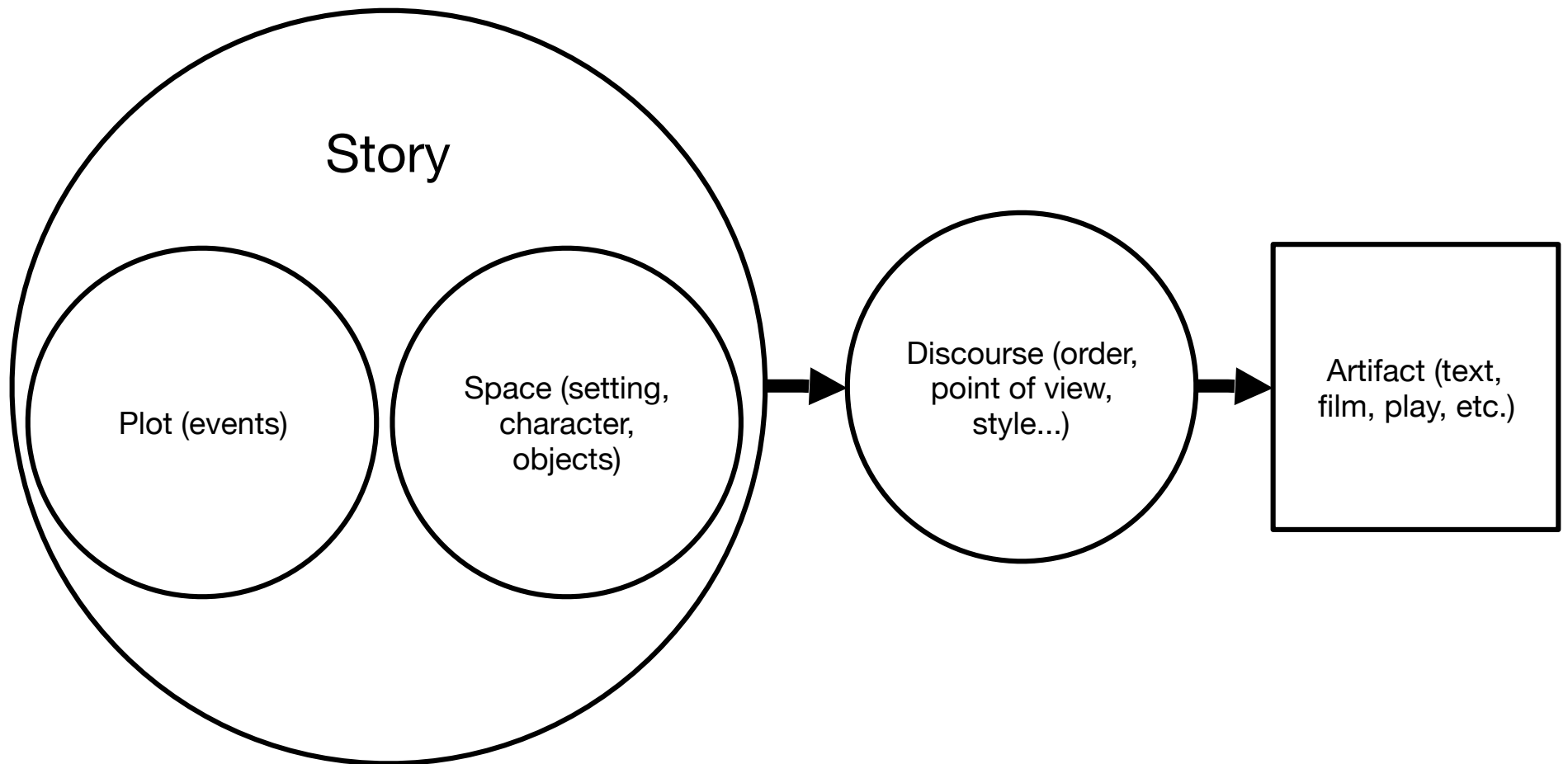
Components of narrative

- narrative: story + discourse

- story: plot + space

- plot: events, ordered in time (instigated by entities in a space)

- space: characters, settings, props, etc. ("storyworld")

- discourse: a particular telling of the story (style, ordering, duration, focalization, etc.)

(Adapted from Kybartas and Bidarra)

Our adorable structuralist model of narrative

Story

Plot (events)

Space (setting, character, objects)

Discourse (order, point of view, style...)

Artifact (text, film, play, etc.)

Rodgers & Hammer

Special_Effect • 1.9M views

1:28:07

Cinderella - Don't Kn

CinderellaVEVO ✓ 79M vie

Music video by **Cinderella** p
Island Def Jam Music Grou

5:50

Cinderella

- Plot:
  - Ill-treated heroine
  - Fairy godmother
  - Rags transformed into magic dress
  - Meeting a prince
  - Lost shoe
  - Shoe test
  - Happy marriage

(adapted from description of Cendrillon in Cox, p. 36)

- Space/storyworld
  - Château in rural France
  - Lady Tremaine and stepsisters
  - Glittering palace
  - Animal friends

- Discourse
  - Adaptations (folktale, novel, film)
  - Order of events (flashback?)
  - Point of view
  - Style

Theories of plot

- Joseph Campbell's monomyth: "A hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow man" (Campbell, p. 23)

- sorry but monomyth sucks, a lot of the readings concern this point

Climax

Rising Action

Falling Action

Exposition

Denouement
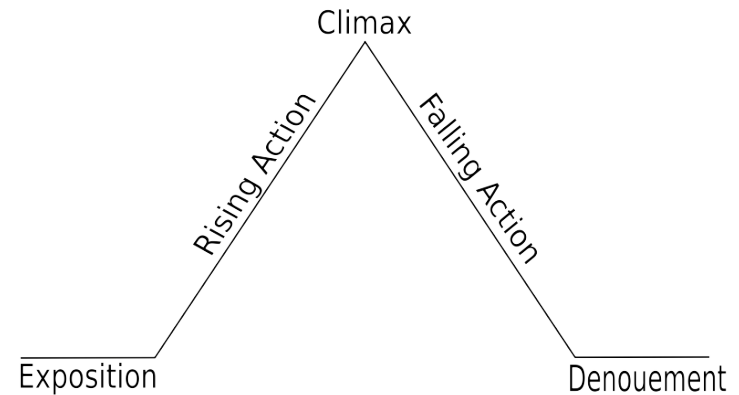
- Freytag's pyramid

- Plotto (Cook)

- Every book of writing advice ever

Critique of structuralism

- "structuralism" refers to a particular intellectual movement in the 1960s, but is also broadly understood to refer to a number of related approaches to social sciences; any theory that proposes an underlying structure can be considered "structuralist"

- can be traced back to Saussure's theory of language, which distinguished between "langue" (the underlying abstract structure of language) and "parole" (the manifestation of that structure)

- structuralism tends to erase subjectivity (along dimensions of culture, ethnicity, gender, etc.) in favor of pretensions toward "universality"

- structuralist theories can feel like conspiracy theories (resistant to being disproven by empirical evidence)

- I'm interested in structuralist ideas not for how they describe the world, but how they can be repurposed as construction kits for things

Why approach narrative with computation?

Interactive narratives

- Change the "plot" of the story (order of events) based on user input

- Model the storyworld in such a way that the user can "explore" it, independent of plot

- Dynamic characters respond to player action

- Tell the story from different points of view

- Etc.

An aid to understanding structure and aesthetics

"[A]n attempt to uncover unarticulated aesthetic preferences in the human author and then force the machine to recapitulate these."—Emily Short, *Parrigues Tarot*

Create surprises

- "If you don't invent a new technique then what you're making probably isn't new"—Phillip Glass

- Randomness + computational models = ability to produce surprises (that wouldn't have happened otherwise)

Citations

- Kybartas, B., and R. Bidarra. "A Survey on Story Generation Techniques for Authoring Computational Narratives." *IEEE Transactions on Computational Intelligence and AI in Games*, vol. 9, no. 3, Sept. 2017, pp. 239–53. IEEE Xplore, doi:10.1109/TCIAIG.2016.2546063.

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