Extraction and Description of the Narrative Structure from TV-Series

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Objectives of Thesis

- Automatically extracting the narrative structure from TV Series
- Solution :
  - Finding a way to answer the question, on narrative elements, **Who, Where, What, When and How** all together.
  - Unsupervised techniques
- Barrier
  - Semantic gap between what is extracted and the storyline convoyed
  - Data

Background

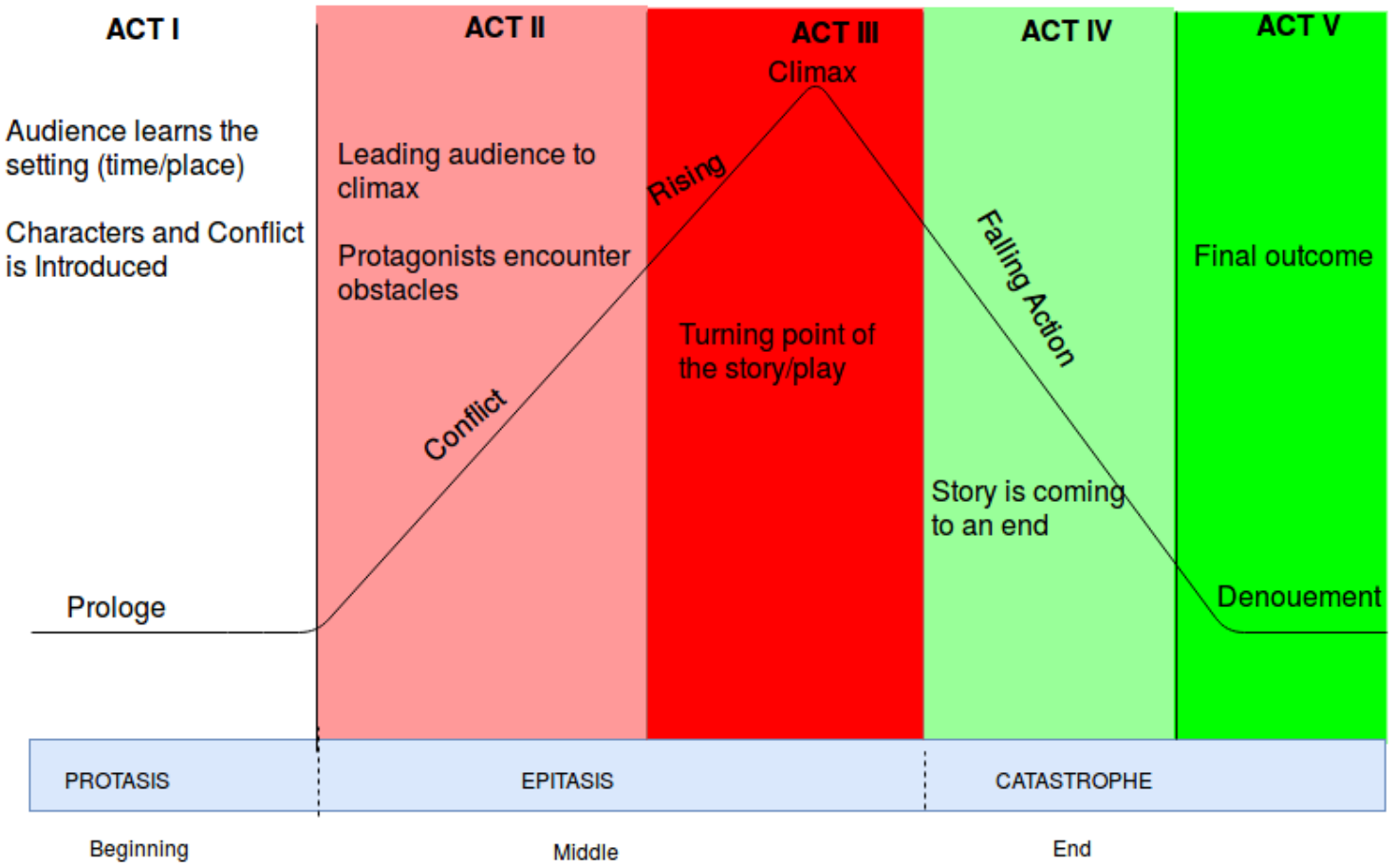
- **Aristotle** : Beginning, Middle, and an End
- **Propp** : Analyzed the basic plot components of folk tales
- **Tzvetan Todorove** : Five steps (Equilibrium ,Disruption, Realization, Restored order, Equilibrium)
- **Claude Lévi-Strauss** : Binary opposites
- **Chatman**: Provides a taxonomy of characteristic elements from the plot of a narrative

Why Narratives

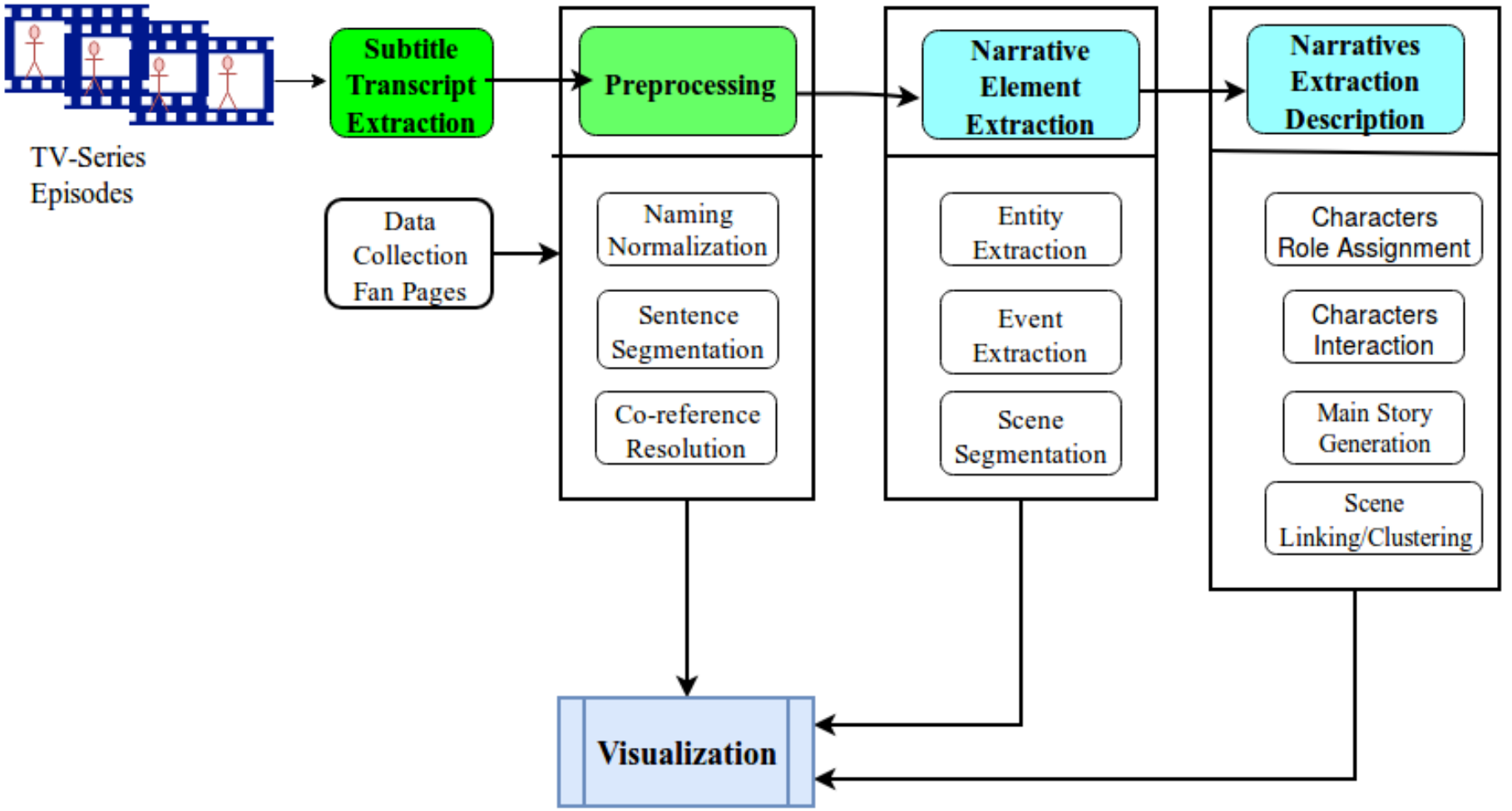
- They include higher level themes related to deeper human emotions
  - Trust and honesty,
  - Love and friendship
  - Good and evil,
  - Valuing people and tackling challenges
- Ability to capture audiences (narrative hook)
- New break through of AI

Narrative Structure

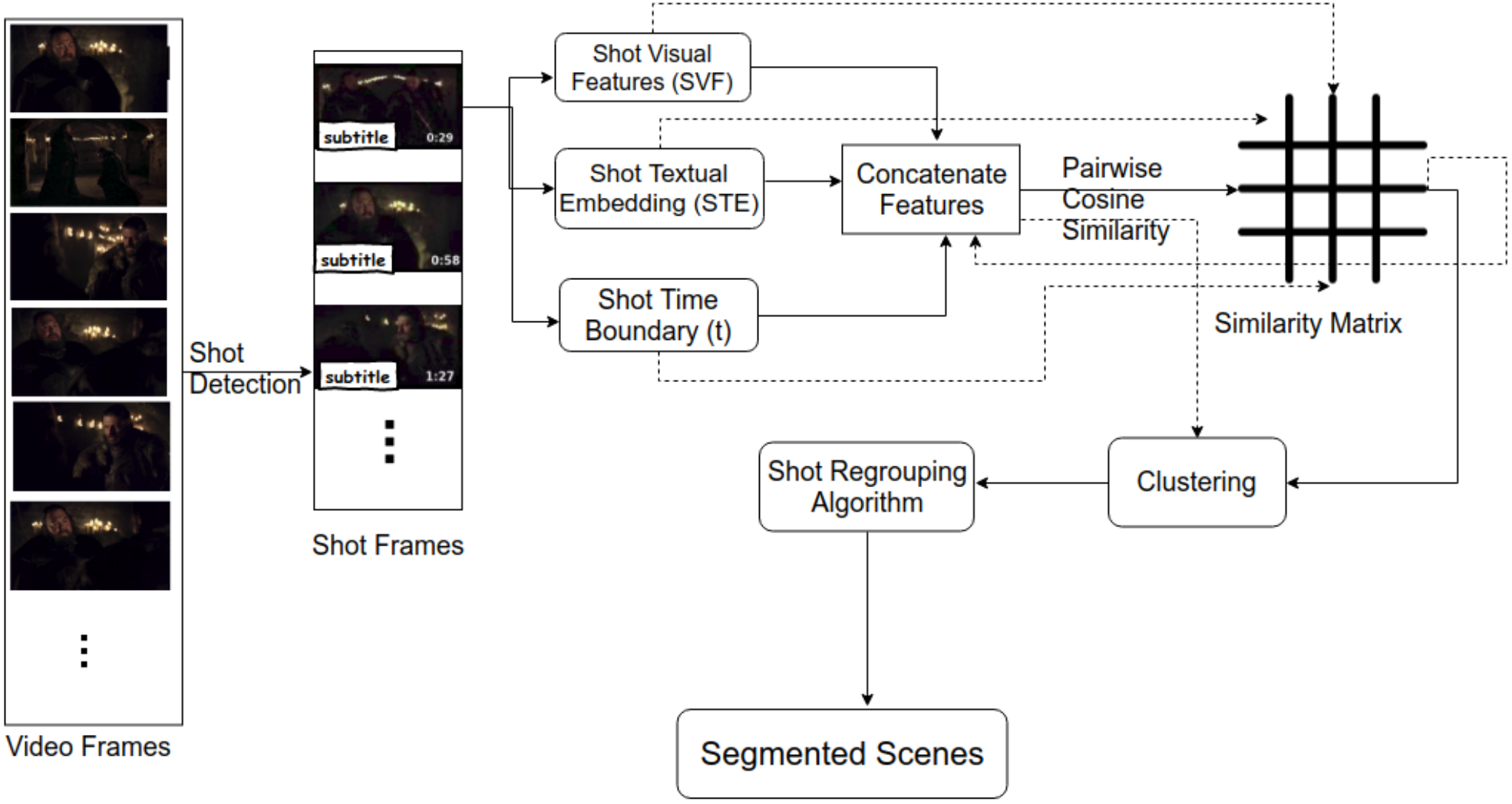
- Patterns of drama in a play(Movie or Episode)
  - Three-Act structure (Aristotle)
  - Five-Act structure (Shakespeare was famous by this)



Pipeline


TV-Series Episodes
Subtitle Transcript Extraction
Data Collection Fan Pages
Preprocessing
Naming Normalization
Sentence Segmentation
Co-reference Resolution
Narrative Element Extraction
Entity Extraction
Event Extraction
Scene Segmentation
Narratives Extraction Description
Characters Role Assignment
Characters Interaction
Main Story Generation
Scene Linking/Clustering
Visualization

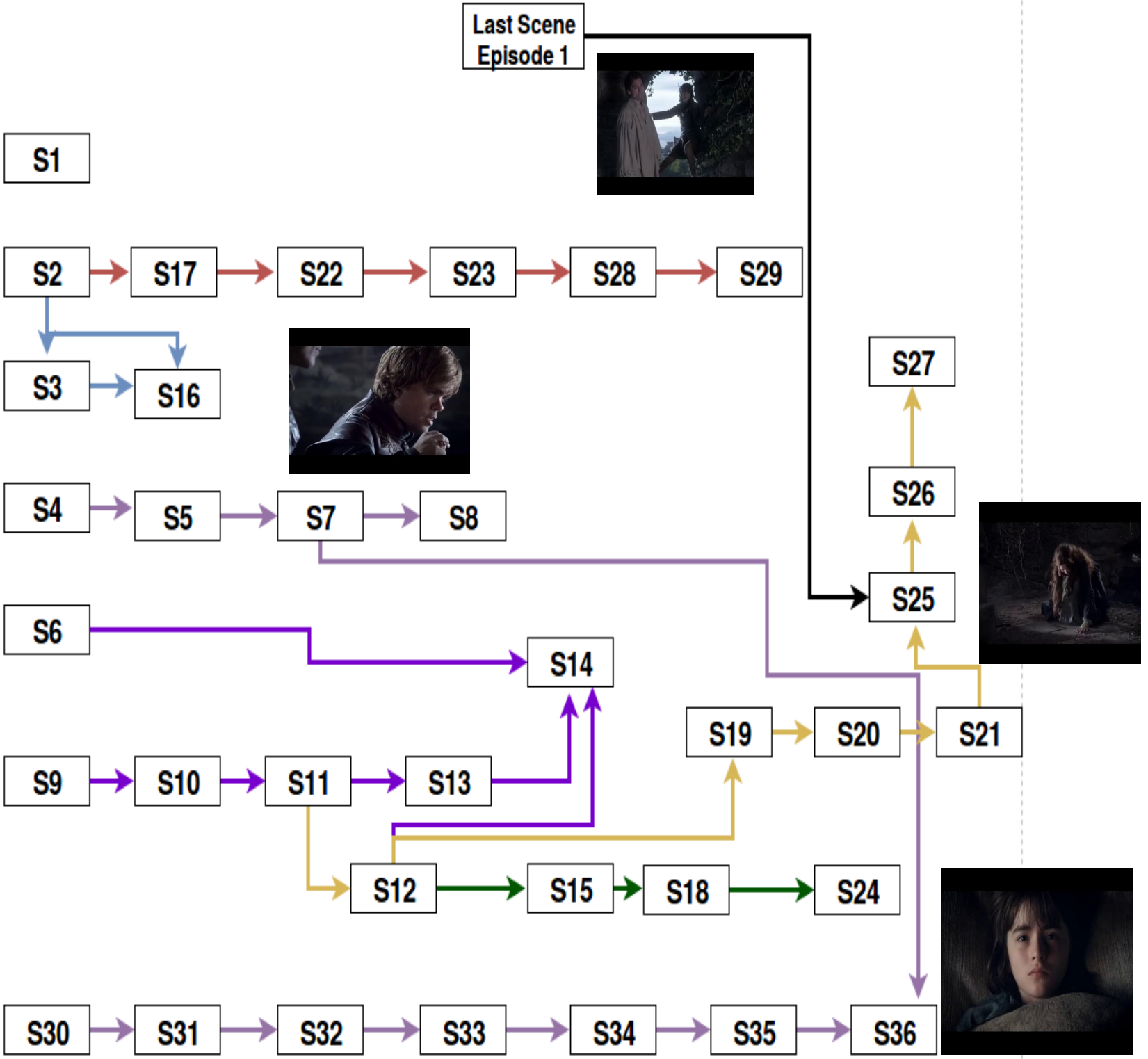
Scene Segmentation



Scene Linking

Scene Linking: Creating/assigning a link or relationship between scenes

- Assign them one of the labels and counter labels for linking .
  - E.g. In the label “Start/Development”
    - “Start” is the a scene label (Linking category)
    - “Development” follows it, which makes it counter label.
- Same characters in different scenes


Last Scene
Episode 1
S1
S2
S17
S22
S23
S28
S29
S3
S16
S4
S5
S7
S8
S6
S14
S9
S10
S11
S13
S12
S15
S18
S24
S19
S20
S21
S25
S26
S27
S30
S31
S32
S33
S34
S35
S36

Thank you for your time !

Questions ?

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