

Returning to the Start

Generating Narratives with Related Endpoints

<https://arxiv.org/pdf/2404.00829>



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Automatic Narrative Generation

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- Informative of the everyday world
- Informative across cultures
- Applicable across domains

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Narrative generation is challenging

- Writing narratives is difficult for human writers
- Difficult to achieve properties of “good writing”
 - Overall coherency, satisfiability, narrative closure

Bookending

Our work focuses on 1 principle of narratology:

Focus on *story closure* via bookending by relating the last sentence back to the first sentence.

→ Improves ending satisfiability, and coherence

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Terms:

Start	First sentence of the narrative
Stop	Last sentence of the narrative
Endpoints	First/last sentences pair

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What Is a Story with Related Endpoints?

Vivienne wanted to move from France to America. She decided to take a job in New York City. Vivienne worked very hard at her new job. After a few months, she got a call from her boss. Her boss told her that she was fired.



Not related

Few semantic similarities
Introduces new questions at end

Vivienne wanted to move from France to America. She decided to apply for a job. She applied for a job in New York City. She was hired. Vivienne was happy to have moved to the USA.

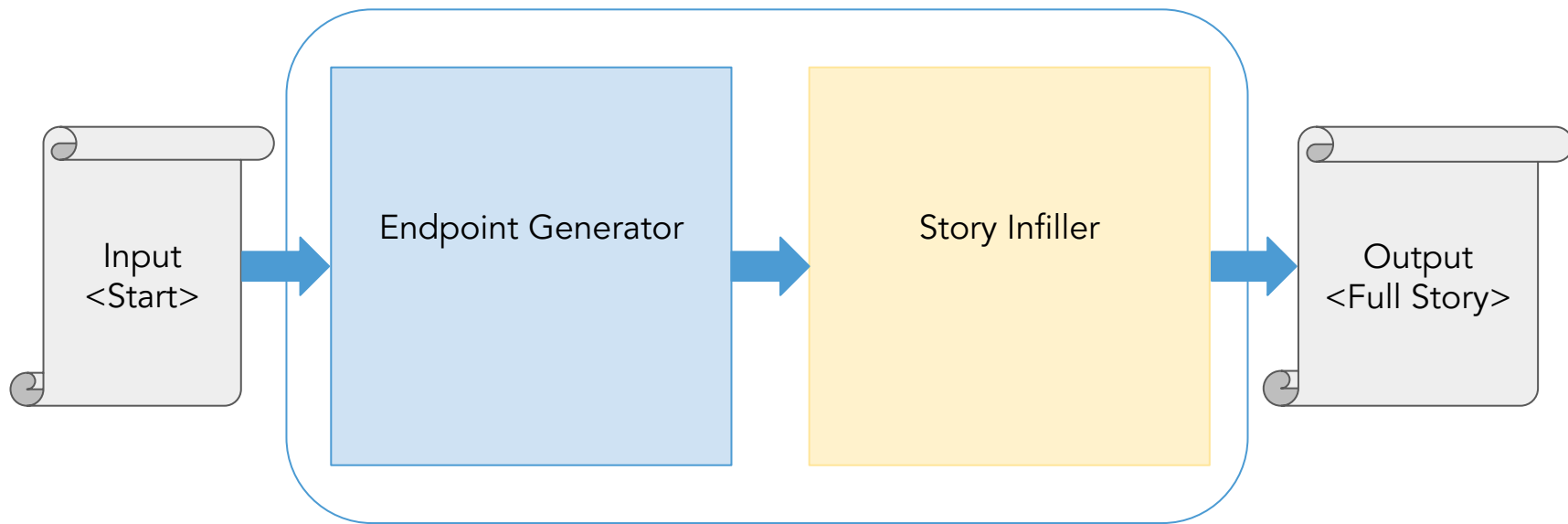


Related

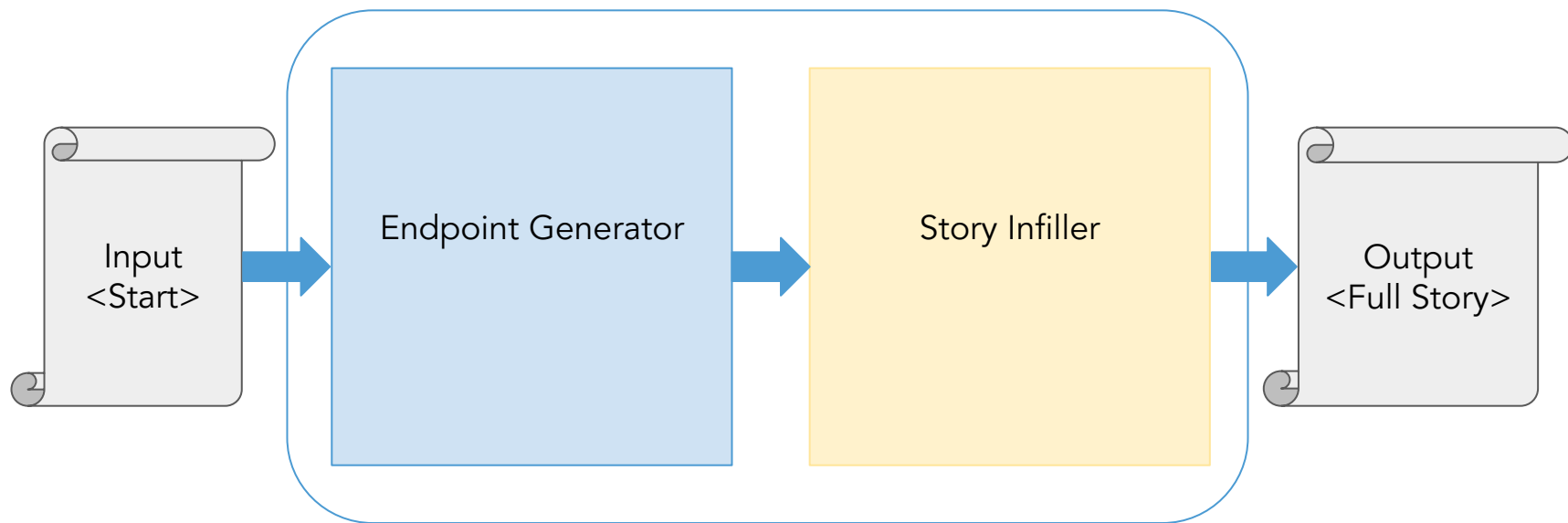
Ending completes themes introduced in start

Story closure ✓
Ending satisfiability ✓
Coherence ✓

RENarGen

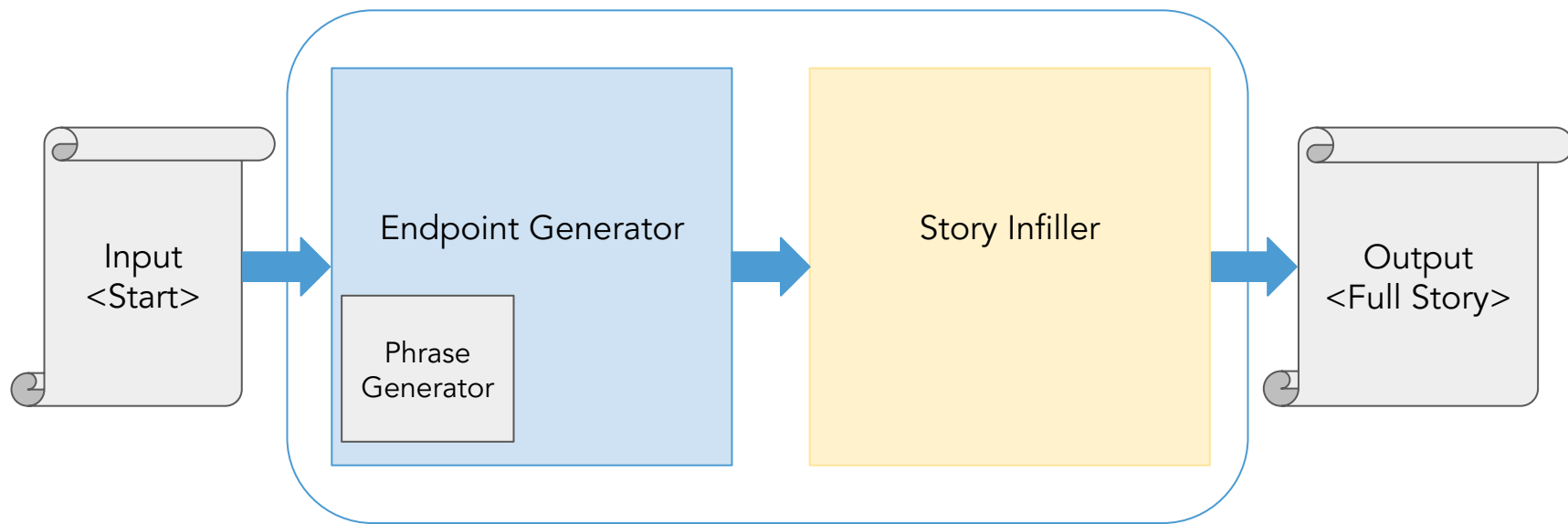


RENarGen for LMs



Sarah had been
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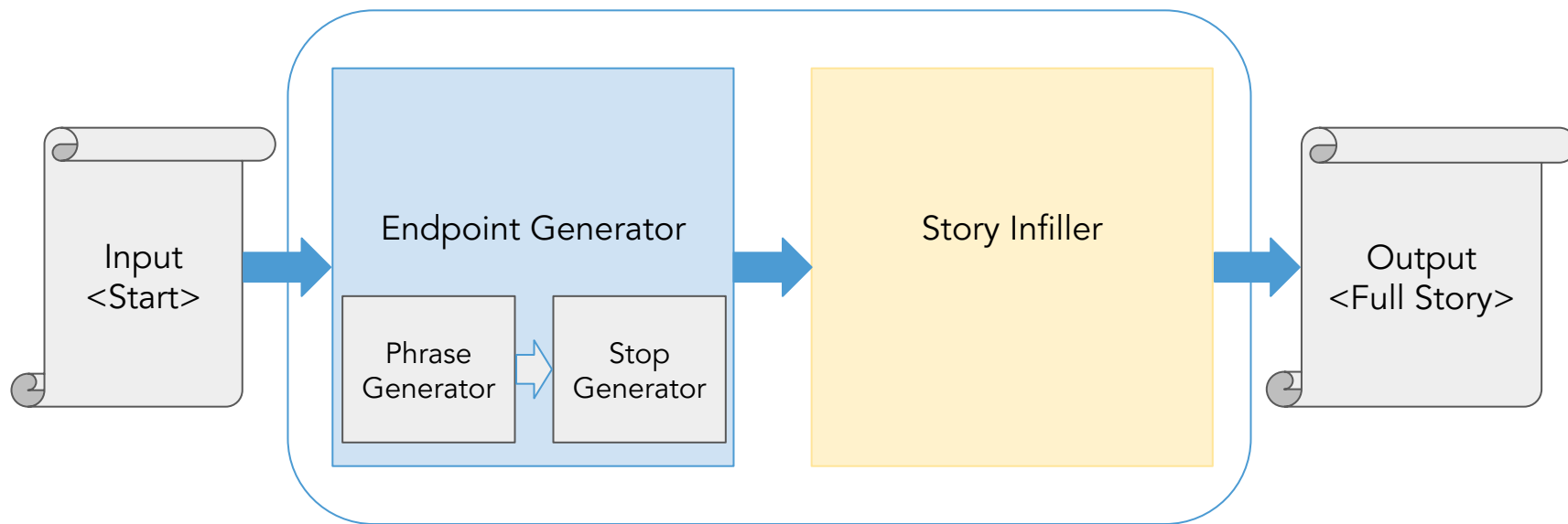
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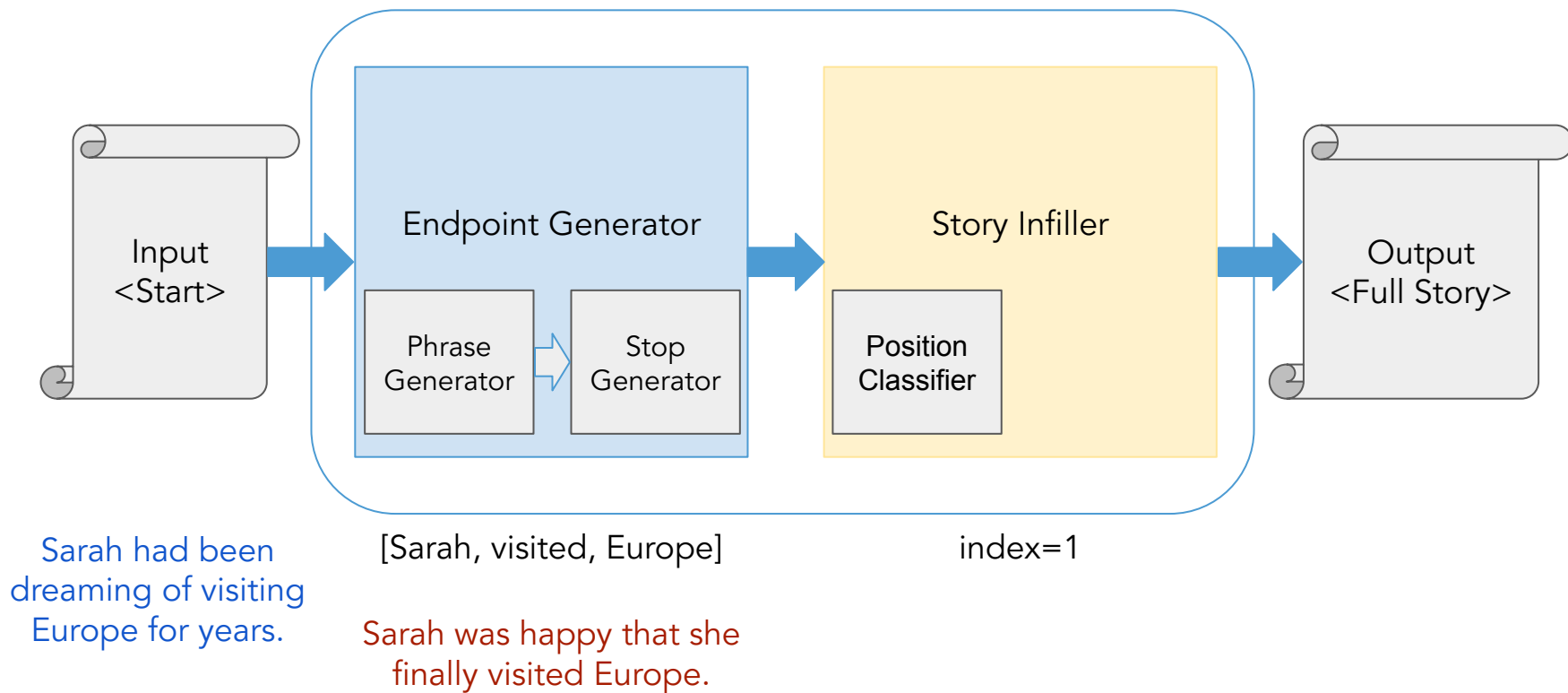


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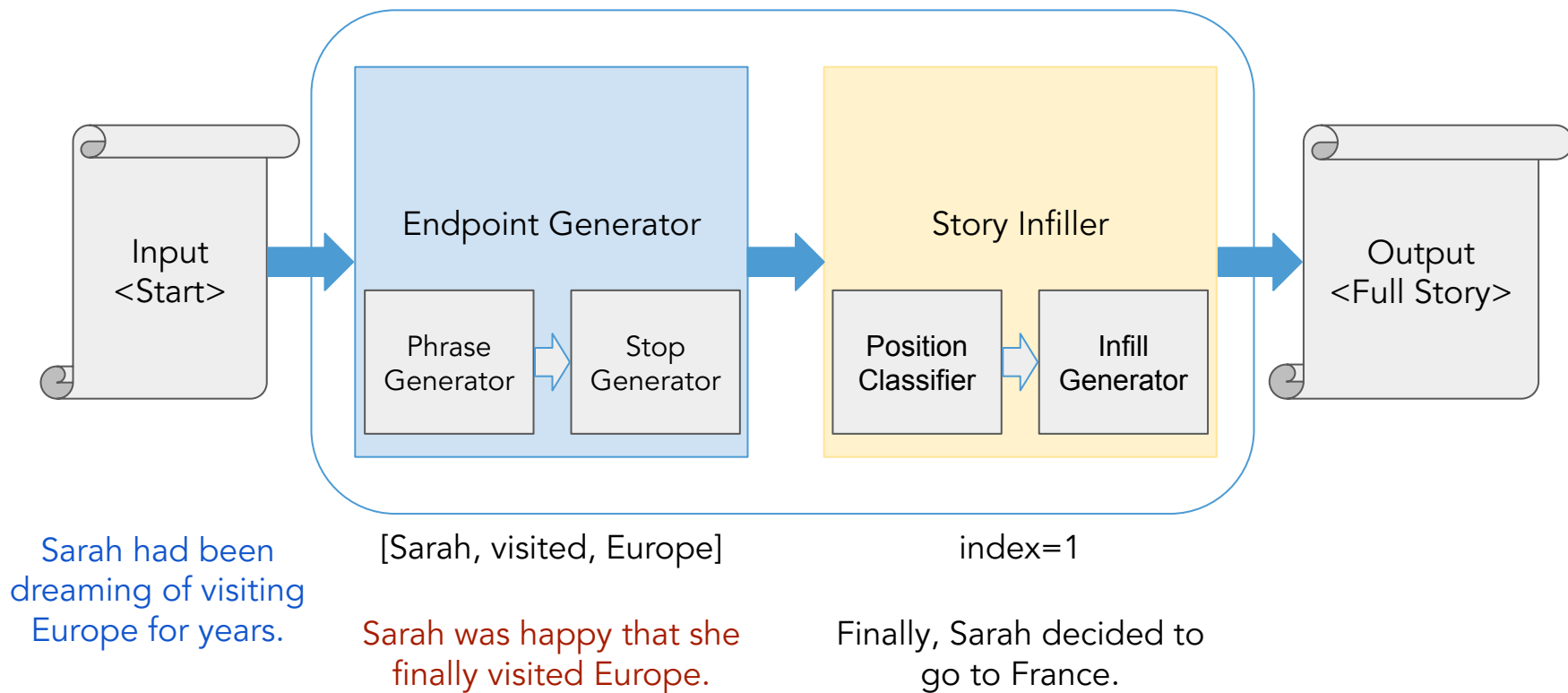
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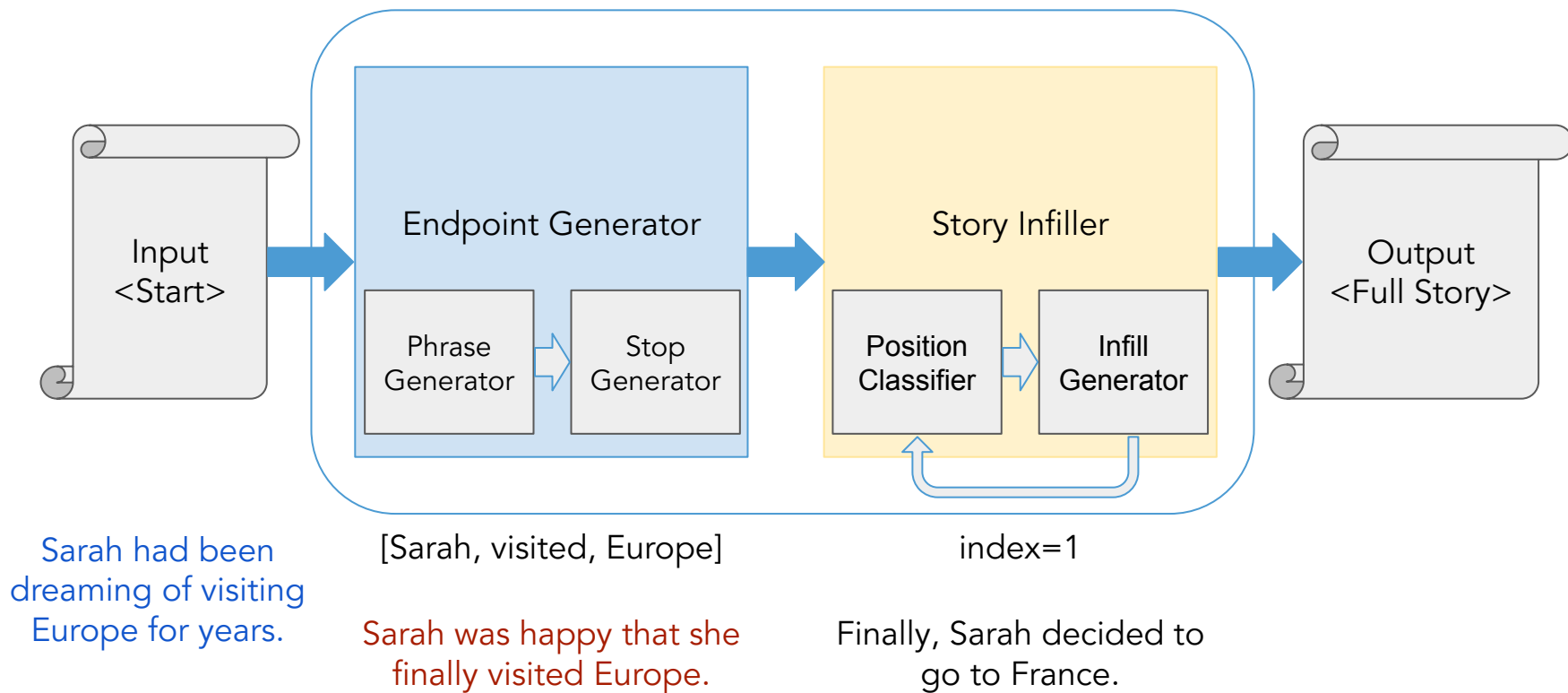
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LM Story Infiller

Iteration 0

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LM Story Infiller

Iteration 1

Sarah had been dreaming of visiting Europe for years.

<Finally Sarah decided to go to France.>

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LM Story Infiller

Iteration 2

Sarah had been dreaming of visiting Europe for years.

Finally Sarah decided to go to France.

<Sarah loved the sights and sounds of Paris.>

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LM Story Infiller

Iteration 3

Sarah had been dreaming of visiting Europe for years.

Finally Sarah decided to go to France.

<Sarah took a train to Paris.>

Sarah loved the sights and sounds of Paris.

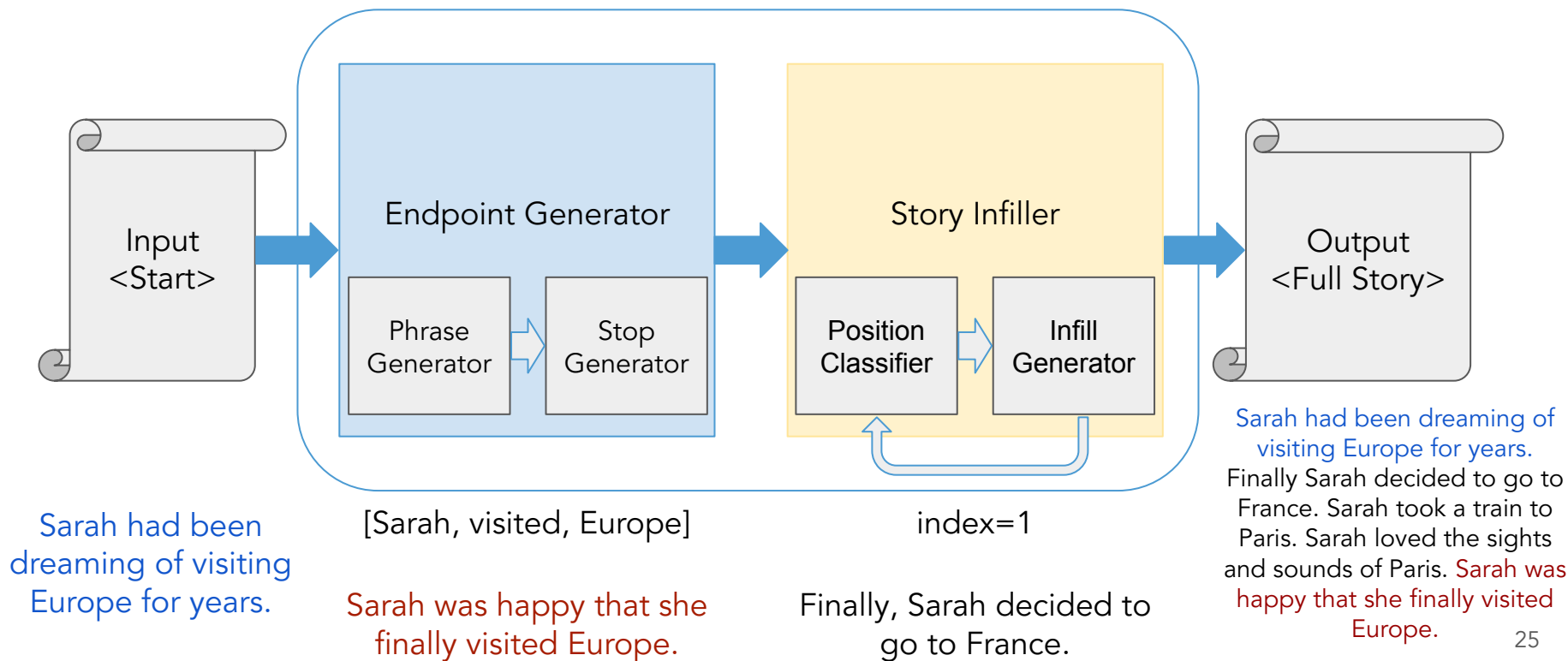
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LM Story Infller Overview

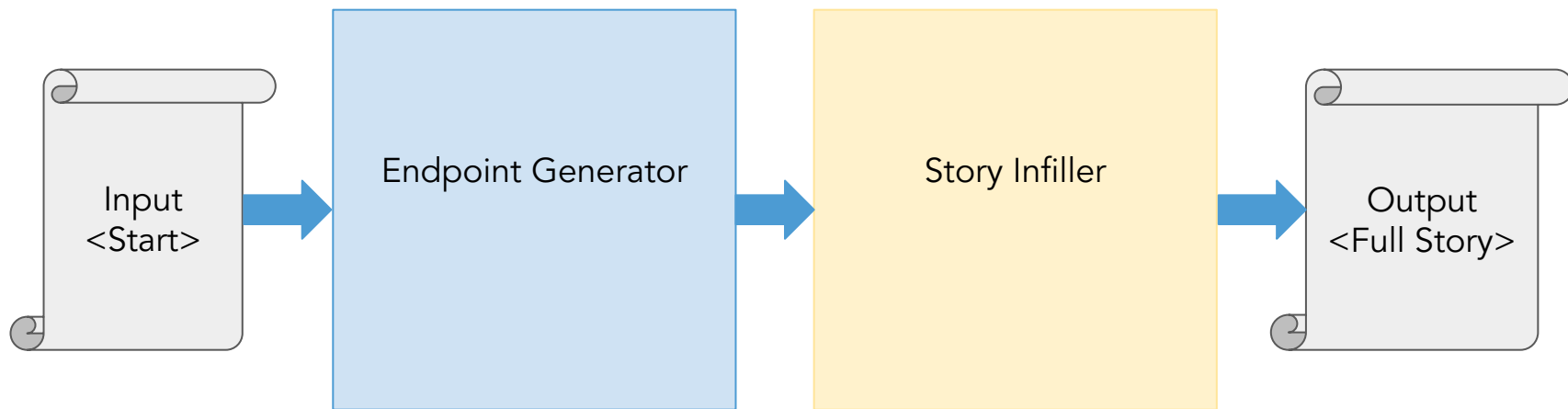
Inflling Strategy

- Infill does not depend on specific location
- Considers both left & right contexts
- Considers all sentences in context
- Capable of producing n -sentence stories

RENarGen for LMs



REnArGen for LLMs



6 Methods for Endpoint Generator

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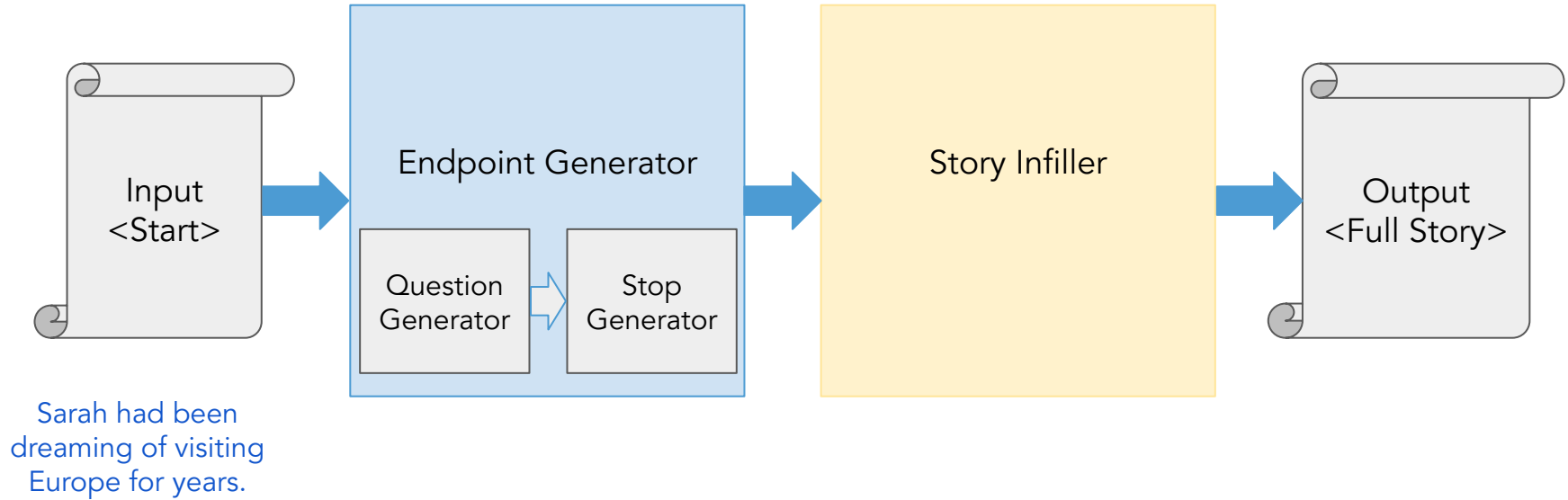
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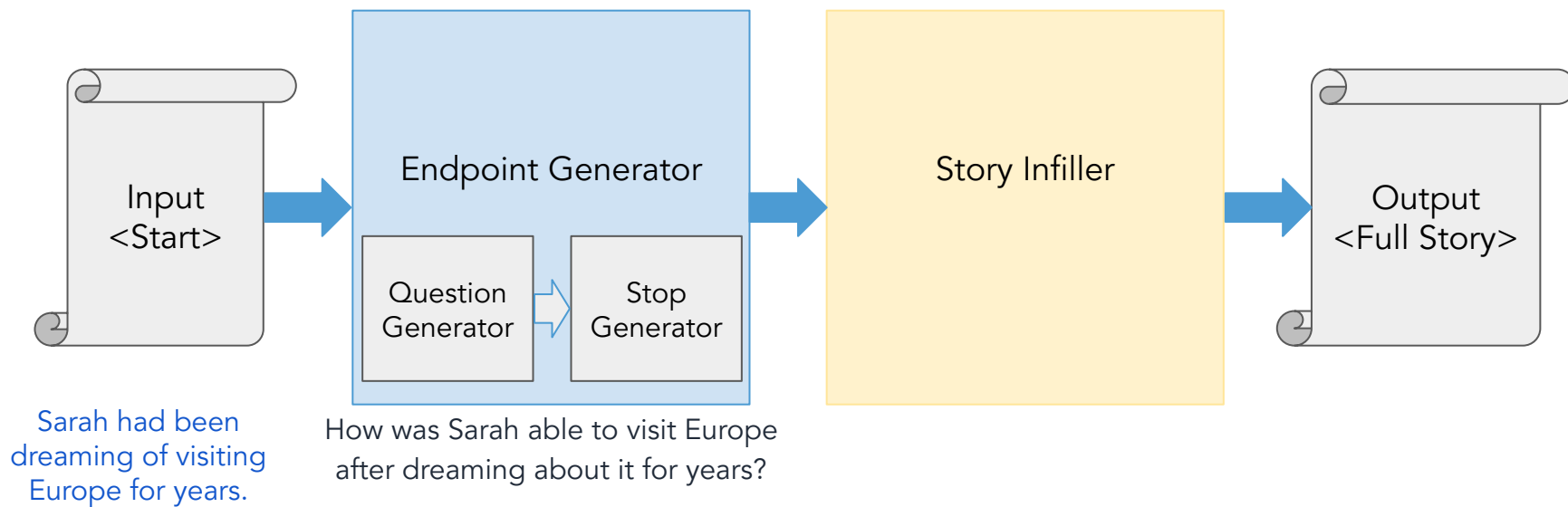
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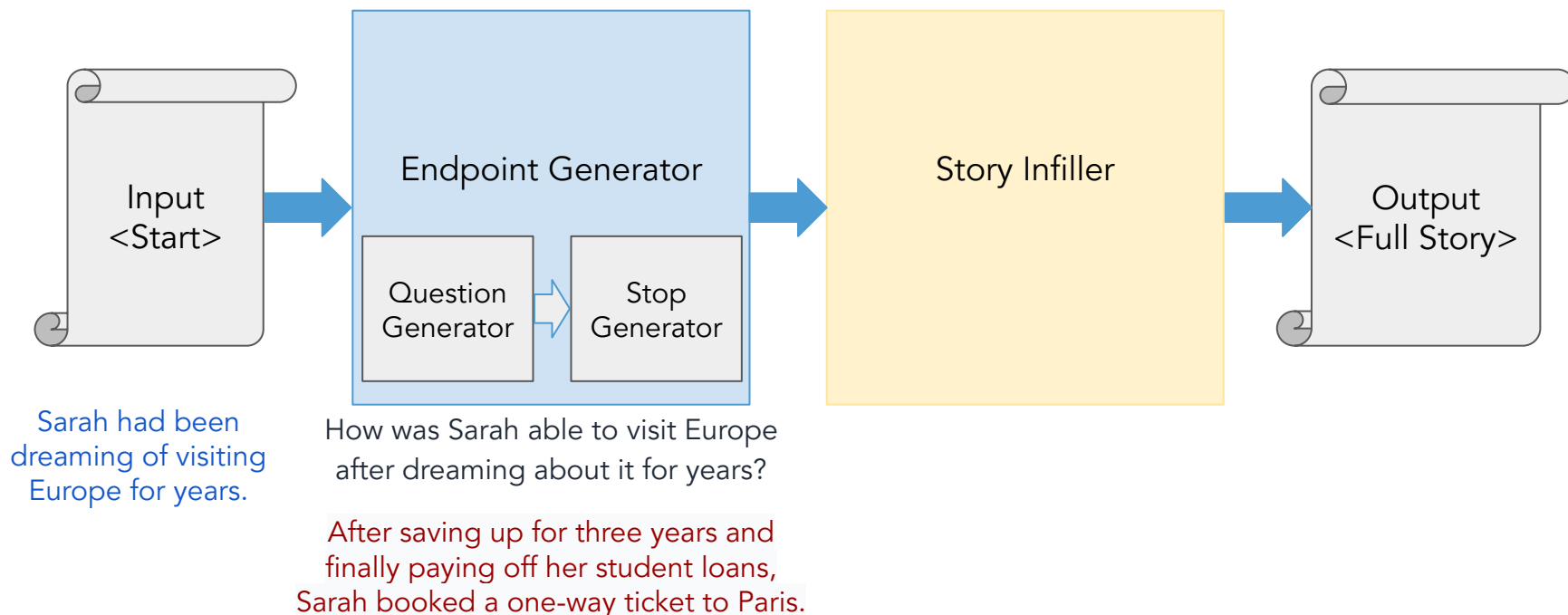
RENarGen for LLMs



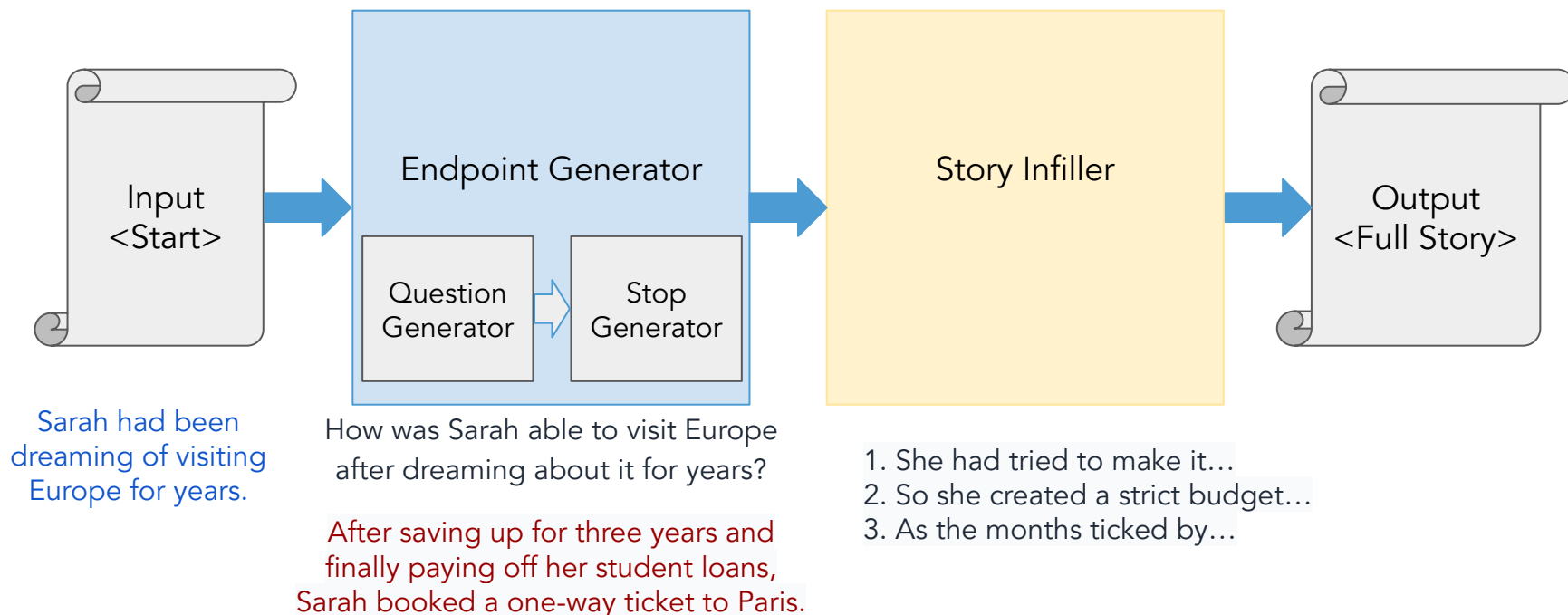
REnArGen for LLMs



RENarGen for LLMs



RENarGen for LLMs



Example Output

Sarah had been dreaming of visiting Europe for years. She had tried to make it happen sooner, but her college debt and entry-level salary had kept her dream perpetually out of reach. So she created a strict budget, cutting back on unnecessary expenses and pouring every spare penny into a dedicated "Europe fund". As the months ticked by, Sarah's savings grew, and with them, her determination to make her dream a reality. After saving up for three years and finally paying off her student loans, Sarah booked a one-way ticket to Paris.

Story closure ✓
Ending satisfiability ✓
Coherence ✓

Experiments

Dataset: ROCStories Corpus

RENarGen-LM: GPT-2 (generation), BERT (position classifier)

RENarGen-LLM: Llama-2-7b,
Llama-2-70b

Human Evaluation

Are properties of “good writing” strengthened?

		Relatedness	Closure	Coherency	Preference
GPT-2	RENarGen-LM	0.63	0.47	0.62	0.66
	Baseline	0.20	0.18	0.21	0.21
	Tie	0.17	0.35	0.17	0.13
Llama-7b	RENarGen-LLM	0.58	0.56	0.55	0.56
	Baseline	0.39	0.43	0.41	0.43
	Tie	0.03	0.01	0.04	0.01
Llama-70b	RENarGen-LLM	0.80	0.56	0.56	0.56
	Baseline	0.20	0.44	0.44	0.44
	Tie	0.0	0.0	0.0	0.0

Higher value is better

Conclusions

- 1st study how related endpoints and bookending affect narrative generation
 - Early outlook on “good writing practice”
- RENarGen paradigm
 - Adaptable to LMs & LLMs
 - Produces narratives with related endpoints
 - Novel infilling strategy
- Automatic/human evaluations show improved narrative closure, ending satisfiability, coherence