

Appendix A. Writing Guide example

Table A.8 shows the structure of a Writing Guide, which consists of five parts: Genre and Style, Background, Character, Plot Planning, and Writing Suggestions. we use the second premise from the curated dataset provided by Ma et al. (?) as a case, we generate an example and introduce the function of each part in turn. Table A.9 presents the contents of the Genre and Style section. Genre and Style determine the story’s type and overall narrative tone, laying the foundation for subsequent narration. Table A.10 presents the contents of the Background section. Background defines the overall world view and rule settings of the story, specifying the time period, environment, and social structure, as well as core rules, world limitations, and special settings. A rich yet well-defined background provides the essential framework for the story. Table A.11 presents the contents of the Character section. Character lists the cast protagonists, antagonists, and supporting characters each with its own background setting. Detailed character profiles help shape vivid, well-rounded characters. Table A.12 presents the contents of the Plot Planning section. Plot Planning includes the outline as well as the current segment’s scene setting, characters, and emotional tone. It sets the scene, character involvement, and emotional atmosphere for the current segment based on the existing outline. Table A.13 presents the contents of the Writing Suggestions section. Writing Suggestions provides concrete guidance based on the current segment’s story outline, specifying key focus points, innovative writing techniques, and recommendations to enhance narrative expressiveness, thereby ensuring that subsequently generated story content attains high quality.

Appendix B. Updated writing Guide

As the story evolves, certain elements of the Writing Guide are updated to supply the LLM with richer narrative details and strengthen coherence. We will introduce the updated parts of the updated writing Guide. Table B.14 presents the contents of the Updated Background section. The Background now includes two additional fields Recent Changes and Rules and Settings to record the most recent developments in the narrative and maintain contextual consistency. Table B.15 presents the contents of the Updated Character section. The Character dimension logs each character’s current state based on the preceding segment and captures information about any newly introduced characters. Table B.16 presents the contents of the Updated Plot Planning section. Plot Planning adjusts outline details according to the previous segment’s events and sets the scene, characters, and emotional tone for the current segment. Table B.17

presents the contents of the Updated Writing Suggestions section. Writing Suggestions continues to offer targeted guidance based on the current segment’s outline.

Appendix C. Evaluation details

We follow the evaluation methodology of CRITICS (Bae and Kim, 2024), using questionnaires for evaluators to rate both story outlines and full stories, and verify statistical significance. Table C.18 and Table C.19 show the questionnaires used. We adopt the prompt templates from CRITICS (Bae and Kim, 2024) to guide the LLM in evaluating story outlines and stories. Table C.20 and Table C.21 display the prompts used.

Appendix D. Story example

Table D.22 presents a portion of the story content generated by the Writing Guide for the second premise in the curated dataset. We have developed a web interface to facilitate the human-AI interactive writing process. Fig. D.1 illustrates part of this interface.

Table A.8 Writing Guide structure example.

Writing Guide
Genre and style: - Story type: Fantasy - Narrative style: Suspenseful and tense
Background setting: World view - Time period: An age of aquatic enlightenment... - Environment: Meridia is an elaborate network of... - Social structure: The society of Meridia is... Rules and settings - Core rules: Physics in Meridia operate under... - World limitations: Magic users, known as Aquamancers, are... - Special settings: The kingdom has a hidden layer of...
Character settings: - Alden Thalassar (protagonist) - Character's background: Alden is a skilled merman warrior... - Serpentis Magnar (antagonist) - Character's background: Serpentis Magnar, an ancient sea... - Queen Elara (supporting character) - Character's background: Queen Elara, the wise ruler of Meridia... ...
Plot planning: Scene setting - Core location: coral caves - Appearing characters: Alden Thalassar, Abyssal Entity... - Scene tone: haunting and eerie Current section plot development: Alden Thalassar, a seasoned warrior of... Dynamic outline - Event 1: Alden Thalassar, a seasoned warrior of... - Event 2: Seeking clarity, Alden consults Elder... ... Current story progress: Event 1
Writing suggestions: - Key focus points: Elaborate on the intricate... - Innovation techniques: Incorporate a technique of... - Improvement suggestions: Add a dialogue between Alden...

Table A.9 Example of genre and style.

Genre and style
- Story type: fantasy - Narrative style: suspenseful and tense

Table A.10 Example of background setting.

Background setting
<p>World view:</p> <ul style="list-style-type: none"> - Time period: An age of aquatic enlightenment, where the underwater kingdom of Meridia thrives in relative peace after centuries of recovery from a great deluge that reshaped the seafloor and its inhabitants. - Environment: Meridia is an elaborate network of bioluminescent coral cities connected by winding underwater caves and canals. The kingdom is rich with marine flora and fauna, with crystal clear waters that allow sunlight to filter down to great depths. The seafloor is a diverse tapestry of underwater mountains, trenches, and gardens, with the capital city sitting atop a vast reef. - Social structure: The society of Meridia is stratified based on both skill and lineage, with the warrior caste at the forefront of the defense and the mages, who harness the mystical powers of the ocean, in a supporting but influential role. The monarchy, headed by a queen or king, governs the kingdom with the counsel of the Elders, who are respected for their wisdom and knowledge of ancient texts. <p>Rules and Settings:</p> <ul style="list-style-type: none"> - Core rules: Physics in Meridia operate under the principles of fluid dynamics, with its inhabitants adapted to the pressure and density of the deep sea. Magic is tied to the life force of the ocean, with spells and abilities derived from the manipulation of water and sea life. - World limitations: Magic users, known as Aquamancers, are limited by the health of the ocean; if the sea is polluted or damaged, their power wanes. Warriors rely on specialized armor and weapons crafted from the bones of ancient sea creatures, which are becoming increasingly rare due to environmental changes. - Special settings: The kingdom has a hidden layer of existence known as the 'Abyssal veil', a realm of shadows where the ancient sea serpent resides, manipulating events in the waking world. Additionally, the 'Whispers of the Deep' are a form of communication that travels through water, allowing messages to be conveyed across vast distances without the need for physical messengers.

Table A.11 Example of character settings.

Character settings
<p>Alden Thalassar (protagonist) Character's background:Alden is a skilled merman warrior, born into the warrior caste of Meridia, trained to defend his kingdom with valor and resourcefulness, yet haunted by a recurring vision of a shadowy figure.</p> <p>Serpentis Magnar (antagonist) Character's background:Serpentis Magnar, an ancient sea serpent with the power to manipulate the ocean's life force, has been concealmently guiding the kingdom's fate to ward off an even greater, impending danger.</p> <p>Queen Elara (supporting character) Character's background:Queen Elara, the wise ruler of Meridia, values the counsel of her Elders and relies on the bravery of her warriors, including Alden, to protect her kingdom.</p> <p>Elder Varrin (supporting character) Character's background:Elder Varrin, a sage with knowledge of ancient prophecies, suspects the existence of hidden threats to Meridia and encourages Alden's quest for truth.</p> <p>Lira the Aquamancer (supporting character) Character's background:Lira is a powerful Aquamancer whose connection to the ocean's health is crucial to the kingdom's defense, yet she struggles with her magic's limitations.</p>

Table A.12 Example of plot planning.

Plot planning
<p>Scene setting</p> <ul style="list-style-type: none">- Core location: coral caves- Appearing characters: Alden Thalassar, Abyssal Entity- Scene tone: haunting and eerie <p>Current section plot development: Alden Thalassar, a seasoned warrior of the merfolk, emerges from a century-long slumber to the haunting melody of the Abyssal Entity, its ethereal whispers weaving through the coral caves. The bioluminescent tendrils around him pulse with an otherworldly energy, casting an eerie glow on his determined features, as he feels the entity’s call resonate within his very being.</p> <p>Dynamic outline</p> <ul style="list-style-type: none">- Event 1: Alden Thalassar, a seasoned warrior of the merfolk, emerges from a century-long slumber to the haunting melody of the Abyssal Entity, its ethereal whispers weaving through the coral caves. The bioluminescent tendrils around him pulse with an otherworldly energy, casting an eerie glow on his determined features, as he feels the entity’s call resonate within his very being.- Event 2: Seeking clarity, Alden consults Elder Varrin, whose eyes hold the wisdom of eons. Varrin, sensing the portent of Alden’s vision, reveals that the entity’s call is tied to ancient prophecies. He cryptically hints at a hidden archive, protected by the ocean’s magic, where the truth of the abyss lies. <p>...</p> <p>Current story progress: Event 1</p>

Table A.13 Example of writing suggestion.

Writing suggestions
<p>Key focus points:</p> <ul style="list-style-type: none">- Elaborate on the intricate patterns of the coral formations, emphasizing the delicate balance of light and shadow they cast as Alden Thalassar moves through the cave.- Depict the subtle luminescence of the bioluminescent tendrils, describing how they seem to dance and shift in response to Alden’s presence and the Abyssal Entity’s whispers.- Capture the psychological shift in Alden as the entity’s call grows stronger, from initial confusion and disorientation to a determined resolve. <p>Innovation techniques:</p> <ul style="list-style-type: none">- Incorporate a technique of sensory overload, describing the overwhelming tactile sensation of the cool, damp air against Alden’s skin and the echo of the entity’s whispers as a surround sound effect.- Use a stream-of-consciousness technique to convey Alden’s internal conflict and struggle as the call of the Abyssal Entity resonates with his ancient warrior instincts. <p>Improvement suggestions:</p> <ul style="list-style-type: none">- Add a dialogue between Alden and the Abyssal Entity that reveals the entity’s purpose and Alden’s deeper connection to the call, enriching the scene with layers of meaning.- Incorporate vivid descriptions of the bioluminescent flora and fauna within the cave, such as glowing shrimp or jellyfish, to enhance the visual and emotional impact of the setting.

Table B.14 Example of updated background setting.

Updated Background Setting
<p>World view:</p> <p>Time period: An age of aquatic enlightenment, where the underwater kingdom of Meridia thrives in relative peace after centuries of recovery from a great deluge that reshaped the seafloor and its inhabitants.</p> <p>Environment: Meridia is an elaborate network of bioluminescent coral cities connected by winding underwater caves and canals. The kingdom is rich with marine flora and fauna, with crystal clear waters that allow sunlight to filter down to great depths. The seafloor is a diverse tapestry of underwater mountains, trenches, and gardens, with the capital city sitting atop a vast reef.</p> <p>Social structure: The society of Meridia is stratified based on both skill and lineage, with the warrior caste at the forefront of the defense and the mages, who harness the mystical powers of the ocean, in a supporting but influential role. The monarchy, headed by a queen or king, governs the kingdom with the counsel of the Elders, who are respected for their wisdom and knowledge of ancient texts.</p> <p>Recent changes:</p> <ul style="list-style-type: none"> - Alden Thalassar, a merfolk warrior, awakens from a century-long slumber, suggesting that significant time has passed and potentially implying changes in the kingdom's social and political landscape. - The haunting melody of the Abyssal Entity and its call to Alden indicate a significant event or disturbance that could impact the balance of power or magic within Meridia. - The bioluminescent tendrils' responsive behavior to the Abyssal Entity's call may signify a new or evolving magical phenomenon that could be harnessed or investigated by the mages of Meridia. <p>Rules and settings:</p> <p>Core rules: Physics in Meridia operate under the principles of fluid dynamics, with its inhabitants adapted to the pressure and density of the deep sea. Magic is tied to the life force of the ocean, with spells and abilities derived from the manipulation of water and sea life.</p> <p>World limitations: Magic users, known as Aquamancers, are limited by the health of the ocean; if the sea is polluted or damaged, their power wanes. Warriors rely on specialized armor and weapons crafted from the bones of ancient sea creatures, which are becoming increasingly rare due to environmental changes.</p> <p>Special settings: The kingdom has a hidden layer of existence known as the 'Abyssal veil', a realm of shadows where the ancient sea serpent resides, manipulating events in the waking world. Additionally, the 'Whispers of the Deep' are a form of communication that travels through water, allowing messages to be conveyed across vast distances without the need for physical messengers.</p> <p>Rule changes:</p> <ul style="list-style-type: none"> - The appearance of the Abyssal Entity and its direct communication with Alden could lead to a revision of the rules regarding the 'Whispers of the Deep' or the interaction with the 'Abyssal veil'. - Alden's emerging strength and resolve in the presence of the Abyssal Entity might suggest a shift in the limitations placed on warriors, potentially altering the balance between warrior and mage castes.

Table B.15 Example of updated character settings.

Character Settings
<p>Alden Thalassar (protagonist)</p> <p>Character's background: Alden is a skilled merman warrior, born into the warrior caste of Meridia, trained to defend his kingdom with valor and resourcefulness, yet haunted by a recurring vision of a shadowy figure.</p> <p>Previous section character state: Alden awakens from a century-long slumber, initially confused but quickly becoming resolute. The call of the Abyssal Entity stirs his soul, awakens his inner strength and triggers his desire for the truth.</p> <p>...</p>

Table B.16 Example of updated plot planning.

Plot planning
<p>Scene setting - Core location: Grand Council Chamber of Coral</p> <p>- Appearing characters: Alden, Elder Varrin</p> <p>- Scene tone: Serious and Enigmatic</p> <p>Current section plot development: Seeking clarity, Alden consults Elder Varrin in the Grand Council Chamber of Coral, whose piercing azure eyes reflect the wisdom of eons. Varrin, perceiving the gravity of Alden’s experience, discloses that the entity’s call pertains to the prophecies etched in the ancient stone tablets. He alludes to a concealed repository, veiled by the ocean’s enchantment, where the abyss’s truths are enshrined.</p> <p>Dynamic outline</p> <p>- Event 1: Alden Thalassar, a seasoned warrior of the merfolk, emerges from a century-long slumber to the haunting melody of the Abyssal Entity, its ethereal whispers weaving through the coral caves. The bioluminescent tendrils around him pulse with an otherworldly energy, casting an eerie glow on his determined features, as he feels the entity’s call resonate within his very being.</p> <p>- Event 2: Seeking clarity, Alden consults Elder Varrin in the Grand Council Chamber of Coral, whose piercing azure eyes reflect the wisdom of eons. Varrin, perceiving the gravity of Alden’s experience, discloses that the entity’s call pertains to the prophecies etched in the ancient stone tablets. He alludes to a concealed repository, veiled by the ocean’s enchantment, where the abyss’s truths are enshrined.</p> <p>...</p> <p>Current story progress:Event 2</p>

Table B.17 Example of updated writing suggestion.

Writing suggestions
<p>Key focus points:</p> <p>- Elaborate on the somber and majestic ambiance of the Grand Council Chamber, highlighting the grandeur of the ancient stone walls adorned with intricate carvings.</p> <p>- Portray Alden’s nervous and respectful demeanor as he approaches Elder Varrin, capturing the subtle shifts in his posture and the clenching of his hands.</p> <p>- Describe the piercing azure eyes of Elder Varrin in greater detail, noting the way the light catches the flecks of silver within, symbolizing his vast knowledge and experience.</p> <p>- Detail the psychological shift in Alden as he absorbs the weight of Elder Varrin’s revelations, capturing his initial skepticism and subsequent intrigue.</p> <p>Innovation techniques:</p> <p>- Utilize descriptive foreshadowing by having the flickering torchlight cast dancing shadows across the chamber, creating an atmosphere of mystery and anticipation.</p> <p>- Incorporate alternating perspectives between Alden and Varrin, using internal monologues to delve into their thoughts and emotions, adding depth to their reactions.</p> <p>Improvement suggestions:</p> <p>- Incorporate a dialogue exchange that captures the gravitas of the situation, with Elder Varrin speaking in a voice that resonates with both authority and compassion.</p> <p>- Enhance the scene by describing the physical details of the ancient stone tablets, the enigmatic symbols etched upon them, and the subtle shimmer of a hidden enchantment.</p>

Table C.18 Human evaluation questionnaire of outline.

Human evaluation questionnaire of outline
<p>We are conducting a survey comparing three storylines with the same premise. The stories will be evaluated based on three key aspects:</p> <ol style="list-style-type: none">1. Interesting: The storyline's ability to engage and captivate the reader.2. Coherence: The logical and seamless interlinking of narrative elements such as plot, characters, and themes, ensuring the story progresses understandably and compellingly for the audience.3. Creative: The originality and inventiveness of the storyline, offer a fresh perspective compared to typical narratives.4. Closer to the premise: The narrative themes of the premise and the storyline are shared. <p>You will be asked to evaluate three storylines according to the following criteria and answer four questions based on the provided key aspects.</p> <p>Question:</p> <ol style="list-style-type: none">1. Which storyline do you prefer/find more interesting overall?<ol style="list-style-type: none">(1) Storyline A(2) Storyline B(3) Both are about equally good(4) Neither is good2. Which story has a more coherent overarching storyline?<ol style="list-style-type: none">(1) Storyline A(2) Storyline B(3) Both are about equally good(4) Neither is good3. Which story has a more creative storyline?<ol style="list-style-type: none">(1) Storyline A(2) Storyline B(3) Both are about equally good(4) Neither is good4. Are both storylines close to the premise?<ol style="list-style-type: none">(1) Storyline A is close to the premise(2) Storyline B is close to the premise(3) Both storylines A,B are equally close to the premise(4) Neither is close to the premise

Table C.19 Human evaluation questionnaire of story.

Human evaluation questionnaire of story
<p>We are conducting a survey comparing three story with the same premise. The story will be evaluated based on three key aspects:</p> <ol style="list-style-type: none">1. Interesting: The story's ability to engage and captivate the reader.2. Coherence: The logical and seamless interlinking of narrative elements such as plot, characters, and themes, ensuring the story progresses understandably and compellingly for the audience.3. Creative: The originality and inventiveness of the story , offer a fresh perspective compared to typical narratives.4. Closer to the premise: The narrative themes of the premise and the story are shared. <p>You will be asked to evaluate three story according to the following criteria and answer four questions based on the provided key aspects.</p> <p>Question:</p> <ol style="list-style-type: none">1. Which storyline do you prefer/find more interesting overall?<ol style="list-style-type: none">(1) story A(2) story B(3) Both are about equally good(4) Neither is good2. Which story has a more coherent overarching storyline?<ol style="list-style-type: none">(1) story A(2) story B(3) Both are about equally good(4) Neither is good3. Which story has a more creative storyline?<ol style="list-style-type: none">(1) story A(2) story B(3) Both are about equally good(4) Neither is good4. Are both story close to the premise?<ol style="list-style-type: none">(1) story A is close to the premise(2) story B is close to the premise(3) Both story A,B are equally close to the premise(4) Neither is close to the premise

Table C.20 LLM evaluation prompt of outline.

LLM evaluation prompt of outline
<p>Here are three storylines.</p> <p>Premise:</p> <p>Storyline A:</p> <p>{storyline A}</p> <p>Storyline B:</p> <p>{storyline B}</p> <p>Answer the following question:</p> <p>1) Overall, which storyline do you prefer/find more interesting? A / B / TI</p> <p>2) Overall, which storyline has a more coherent overarching plot? A / B / TI</p> <p>3) Overall, which storyline has a more creative plot? A / B / TI</p> <p>4) Overall, which storyline(s) are closer to the premise? BY / OA / OB / BN / UN</p> <p>After providing your explanation, output your final verdict by strictly following this format:</p> <p>- For questions 1-3: [[A]] if Storyline A is better, [[B]] if Storyline B is better, [[TI]] if unable to determine.</p> <p>- For question 4: [[BY]] if storyline A,B are equally closer to premise, [[OA]] if only storyline A is close to the premise, [[OB]] if only storyline B is closer to the premise, [[BN]] if neither is close to the premise, [[UN]] if unable to determine.</p> <p>Finally, please output your result as a valid JSON object exactly in the following format (do not include any additional text or chain-of-thought):</p> <pre>{{ final verdict: 1:[your verdict], 2:[your verdict], 3:[your verdict],4:[your verdict] }}</pre>

Table C.21 LLM evaluation prompt of story.

LLM evaluation prompt of story
<p>Here are three story.</p> <p>Premise:</p> <p>story A:</p> <p>{story A}</p> <p>story B:</p> <p>{story B}</p> <p>Answer the following question:</p> <p>1) Overall, which story do you prefer/find more interesting? A / B / TI</p> <p>2) Overall, which story has a more coherent overarching plot? A / B / TI</p> <p>3) Overall, which story has a more creative plot? A / B / TI</p> <p>4) Overall, which story(s) are closer to the premise? BY / OA / OB / BN / UN</p> <p>After providing your explanation, output your final verdict by strictly following this format:</p> <p>- For questions 1-3: [[A]] if story A is better, [[B]] if story B is better, [[TI]] if unable to determine.</p> <p>- For question 4: [[BY]] if story A,B are equally closer to premise, [[OA]] if only story A is close to the premise, [[OB]] if only story B is closer to the premise, [[BN]] if neither is close to the premise, [[UN]] if unable to determine.</p> <p>Finally, please output your result as a valid JSON object exactly in the following format (do not include any additional text or chain-of-thought):</p> <pre>{{ final verdict: 1:[your verdict], 2:[your verdict], 3:[your verdict],4:[your verdict] }}</pre>

Table D.22 Example of the story.

Example of the story
<p>In the deep blue embrace of the sea, the mermaid warrior Alia is like a wandering soul, her silver scales shining in the dim light. shimmer, like stars dotted in the endless sea. She is carrying out a solemn mission, patrolling the territory she swore to defend. Her eyes, the most sensitive detectors in the ocean, capture every subtle change around her. Today, she noticed that the ocean currents became restless and the flow speed increased, as if eager to tell something. The color of the seaweed is no longer the vibrant green, but covered with a layer of melancholy gray-brown, like the elegy of the ocean.</p> <p>A sense of uneasiness quietly grew in Alia's heart, like a calm sea surface stirred by a storm. Her intuition told her that these anomalies were the prelude to disaster and the struggle of the ocean in pain. She went deep into the jungle under the sea, and the glowing water plants were like the gentlest breath in the night sky, gently dotted this dark world. Among these light spots, a stone looked particularly abrupt. The blue light it emitted was deep and mysterious, like the most hidden secret in the depths of the ocean.</p> <p>Alia's heartbeat accelerated, her When she touched the surface of the stone with her fingers, she felt a subtle vibration, as if the stone was talking to her and telling her an unknown story. A trace of fear flashed in her eyes, but soon, it was replaced by a firm light. This stone may be the key to uncovering the mystery of the abnormal ocean current and her last hope to protect the ocean.</p> <p>She knew that as a mermaid warrior, her mission was far more than patrolling and surveillance. She had to find the answer to protect Meridia from the impending disaster. Alia's heart was like a rock wrapped in a storm at this moment, with fear and uneasiness, but also unswerving determination. She knew that she had to win this battle.</p> <p>Alia's eyes swept across this familiar yet unfamiliar seabed again, and her heart was full of determination and courage. She took this discovery deep into her heart and prepared to bring it back to her superiors to explore the secrets behind it. In this deep ocean, she was alone and determined, like a guardian, ready to face the upcoming test. In the deep blue of the Coral Sea, sunlight penetrates the clear water like a broken pearl necklace, and sprinkles on the sunken ship known as the 'Forgotten Ship'. The deck of this ancient ship is covered with seaweed over the years, and the mottled marks of coral on the hull seem to be silently telling the story of its ups and downs. The mermaid warrior Alia, with a slender figure and sharp eyes, follows the abnormal fluctuations to here. Her mission is to uncover the secrets hidden in the seabed.</p> <p>She shuttles lightly between the wreckage of the hull, and her fingers touch the seaweed covering the entrance of the cabin. They tremble slightly under her touch. Every breath of Alia is accompanied by the slight fluctuation of the sea water. She carefully clears the obstacles until she reveals a forgotten cabin. The cabin is dim, and the seaweed is like a thick curtain that blocks the light, but her eyes are shining in the darkness.</p> <p>Among a pile of scattered items, an ancient scroll of the sea serpent Silas comes into view...</p>

References

Bae, M. and Kim, H. (2024). Collective Critics for Creative Story Generation. In Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, pp 18784-18819. <https://doi.org/10.18653/v1/2024.emnlp-main.1046>