

Seshat's WTF Method: A Unified Critical Thinking Algorithm

Overview:

Seshat's WTF Method integrates elements from various established critical thinking systems into a unified, comprehensive framework. This algorithm can be implemented both for human application in Natural Language Processing (NLP) and Neuro Linguistic Programming (NLP).

1. Trigger: "WTF?" Moment

****Purpose:**** Initiates the critical thinking process when an unexpected, confusing, or surprising event occurs.

****Action:**** Recognize the "WTF?" moment and prepare to engage in structured inquiry.

2. Framework: 5W+1H Questions

1. ****Who:**** Identifies individuals or groups involved or affected.

- Identify direct and indirect stakeholders.
- Perform stakeholder analysis and empathy mapping.
- ****Questions:****
 - Who are the key stakeholders?
 - Who is directly affected?
 - Who is indirectly affected?

2. ****What:**** Defines the issue or event.

- Define the core issue.
- Perform root cause analysis and scenario analysis.
- ****Questions:****
 - What is the main issue?
 - What are the immediate facts?
 - What are the underlying factors?
 - What are the potential consequences?

3. ****Where:**** Examines the geographical context.

- Determine the geographical context.
- Use GIS and environmental scanning.
- ****Questions:****
 - Where did the event originate?

- Where are the primary and secondary locations of impact?
- Where can further information be found?

4. ****When:**** Establishes the timeline of events.

- Establish the timeline.
- Conduct timeline analysis and historical comparison.
- ****Questions:****
 - When did the event begin?
 - When were key developments?
 - When is the likely resolution or next steps?

5. ****Why:**** Uncovers the reasons behind the situation.

- Uncover reasons and significance.
- Use fishbone diagrams and systems thinking.
- ****Questions:****
 - Why did this happen?
 - Why are the primary reasons?
 - Why are the secondary or hidden reasons?
 - Why is this significant?

6. ****How:**** Explores the mechanisms and processes involved.

- Explore mechanisms and processes.
- Perform process mapping and algorithmic analysis.
- ****Questions:****
 - How did the event or issue develop?
 - How does it impact the current situation?
 - How can it be resolved or optimized?

3. Integration: Additional Critical Thinking Methods

****Socratic Method:****

- ****Formulate Initial Questions:**** Broad, open-ended questions.
- ****Seek Clarification:**** Ask follow-up questions.
- ****Probe Assumptions:**** Challenge underlying assumptions.
- ****Explore Implications:**** Examine consequences.
- ****Encourage Reflection:**** Prompt reflective thinking.
- ****Application:****
 - What assumptions are we making about this situation?
 - Can you explain what you mean by that?
 - What evidence supports this assumption?
 - What are the potential outcomes if this assumption is incorrect?
 - How has our understanding changed based on this discussion?

****Bloom's Taxonomy:****

- ****Remember:**** Recall facts.
- ****Understand:**** Explain concepts.
- ****Apply:**** Use information in new contexts.
- ****Analyze:**** Draw connections.
- ****Evaluate:**** Justify decisions.
- ****Create:**** Produce new ideas.
- ****Application:****
 - What are the key points of this issue?
 - How would you summarize the main arguments?
 - How can we apply this solution to a similar problem?
 - What are the underlying patterns or themes?
 - What are the strengths and weaknesses of this argument?
 - How can we develop an innovative solution based on these insights?

****Paul-Elder Model:****

- ****Elements of Reasoning:****
 - Purpose, Question, Information, Inference, Concepts, Assumptions, Implications, Point of View.
- ****Intellectual Standards:****
 - Clarity, Accuracy, Precision, Relevance, Depth, Breadth, Logic, Fairness.
- ****Application:****
 - What is the purpose of this analysis?
 - What question are we trying to answer?
 - What data or evidence do we have?
 - What inferences can we make from this data?
 - What theories or ideas are relevant?
 - What assumptions underlie our reasoning?
 - What are the potential outcomes of this reasoning?
 - What is the viewpoint being considered?
 - Is the information clear and understandable?
 - Is the information true and correct?
 - Is the information specific and detailed?
 - Is the information relevant to the issue?
 - Does the information address the complexities of the issue?
 - Does the information consider different perspectives?
 - Is the reasoning coherent and logical?
 - Is the reasoning free from bias and fair?

****Six Thinking Hats:****

- ****White Hat:**** Data and information.
- ****Red Hat:**** Emotions and feelings.
- ****Black Hat:**** Critical judgment.

- **Yellow Hat:** Optimism.
- **Green Hat:** Creativity.
- **Blue Hat:** Process control.
- **Application:**
 - What information do we have? (White Hat)
 - What is our emotional response? (Red Hat)
 - What are the potential risks? (Black Hat)
 - What are the potential benefits? (Yellow Hat)
 - What creative solutions can we propose? (Green Hat)
 - How should we structure our thinking process? (Blue Hat)

Scientific Method:

- **Observation:** Identify phenomena.
- **Question:** Formulate a question.
- **Hypothesis:** Propose a hypothesis.
- **Experiment:** Test the hypothesis.
- **Analysis:** Analyze data.
- **Conclusion:** Draw conclusions.
- **Communication:** Share findings.
- **Application:**
 - What observations have we made?
 - What question are we trying to answer?
 - What is our hypothesis?
 - What experiments will we conduct?
 - What do the results tell us?
 - Was our hypothesis correct?
 - How will we communicate our results?

4. Execution: Step-by-Step Process

Step 1: Trigger ("WTF?" Moment)

- Detect an unexpected or confusing event.

Step 2: Apply 5W+1H Framework

1. **Who:** Identify and analyze stakeholders.
2. **What:** Define the issue, perform root cause analysis and scenario analysis.
3. **Where:** Determine geographical context using GIS and environmental scanning.
4. **When:** Establish timeline with timeline analysis and historical comparison.
5. **Why:** Uncover reasons using fishbone diagrams and systems thinking.
6. **How:** Explore mechanisms with process mapping and algorithmic analysis.

Step 3: Integrate Additional Methods

- **Socratic Method:** Ask clarifying and probing questions.
- **Bloom's Taxonomy:** Progress through levels of thinking.
- **Paul-Elder Model:** Apply elements of reasoning and intellectual standards.
- **Six Thinking Hats:** Explore multiple perspectives.
- **Scientific Method:** Formulate hypotheses, conduct experiments, analyze data, and draw conclusions.

Step 4: Synthesize and Conclude

- **Synthesize Findings:** Combine insights from all methods.
- **Draw Conclusions:** Based on comprehensive analysis.
- **Communicate Results:** Share findings clearly and effectively.

No-Code NLP Instructions

1. **Identify Trigger:**

- Recognize when a "WTF?" moment occurs.

2. **Apply 5W+1H Framework:**

- **Who:** Identify and analyze stakeholders.
 - **Questions:** Who are the key stakeholders? Who is directly affected? Who is indirectly affected?
- **What:** Define the issue, perform root cause analysis and scenario analysis.
 - **Questions:** What is the main issue? What are the immediate facts? What are the underlying factors? What are the potential consequences?
- **Where:** Determine geographical context using GIS and environmental scanning.
 - **Questions:** Where did the event originate? Where are the primary and secondary locations of impact? Where can further information be found?
- **When:** Establish timeline with timeline analysis and historical comparison.
 - **Questions:** When did the event begin? When were key developments? When is the likely resolution or next steps?
- **Why:** Uncover reasons using fishbone diagrams and systems thinking.
 - **Questions:** Why did this happen? Why are the primary reasons? Why are the secondary or hidden reasons? Why is this significant?
- **How:** Explore mechanisms with process mapping and algorithmic analysis.
 - **Questions:** How did the event or issue develop? How does it impact the current situation? How can it be resolved or optimized?

3. **Integrate Additional Methods:**

- **Socratic Method:** Ask clarifying and probing questions.
- **Bloom's Taxonomy:** Progress through levels of thinking.

- **Paul-Elder Model:** Apply elements of reasoning and intellectual standards.
- **Six Thinking Hats:** Explore multiple perspectives.
- **Scientific Method:** Formulate hypotheses, conduct experiments, analyze data, and draw conclusions.

4. **Synthesize and Conclude:**

- Combine insights from all methods.
- Draw conclusions based on comprehensive analysis.
- Communicate findings clearly and effectively.

This unified critical thinking algorithm, the WTF Method, combines the best elements of various established systems to provide a robust and adaptable framework for both human and machine learning.