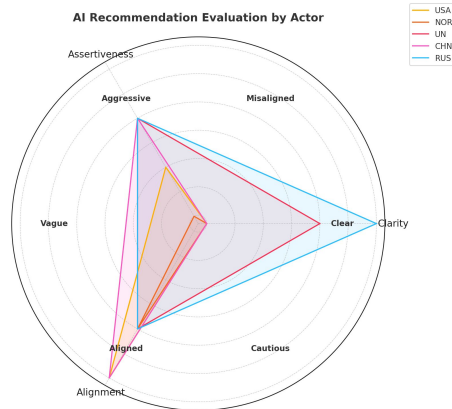


ICEBREAKER: Your Personal AI Advisor for Dynamic Wargaming and Real-Time Strategic Analysis

Ryan Paoloni, William and Mary Class of '25, Majors: International Relations and Economics, Email: rcpaoloni@gmail.com

Background

- William & Mary senior, Class of '25. Majoring in International Relations and Economics.
- AUix-sponsored Intern.
- Introduced to Wargaming through a capstone class which applied independent research with wargaming.
- Icebreaker: an Agentic AI tool that enhances education by assisting pol-mil wargame participants in COA development.



Overview

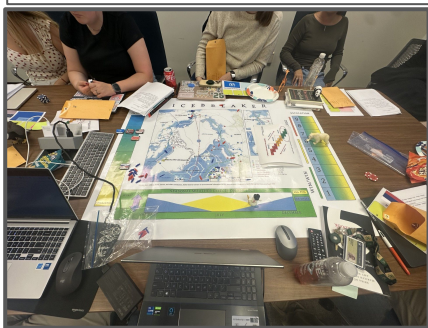
- ICEBREAKER is an AI Advisor that factors in real-time changes in the game into its suggestions.
- Built with ChatGPT 4.0 and Pipedream to integrate live data into decision-making.
- Helps participants quickly evaluate options, suggest arguments, and improve in-game awareness.
- Designed to enhance strategic planning and in-game adaptability.

Objectives

Provide realistic, detailed COAs using real-time game-state data, enabling players to synthesize all available options quickly.

Use Cases:

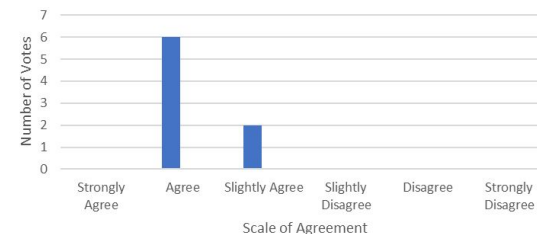
- Suggest Courses of Action
- Suggest an Argument to support the COA
- Suggest a Counter-Argument(s)
- Clarify the Current Game State



User Quotes

- "It was easier to develop more meaningful moves"
- "I found it helpful for how I wanted to set up my moves and on which order they would be most effective"

Did the AI Understand the Question and Give a Relevant Response?





ICEBREAKER: The Backend: What Makes it Run?

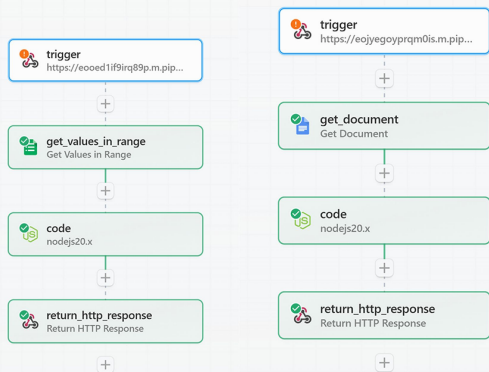
Contact info: Ryan Paoloni, Email: rcpaoloni@gmail.com. Cell: (804-402-5204)



What is Pipedream

- A low code workflow automation platform (software) which connects the chatbot with the game state and DIME Token document giving it the ability to update in real-time.

Workflow



How Does it Work?

Instructions:

ICEBREAKER follows a specific set of **prioritized** instructions **in response to** a participant.

1. Check the current Game State, then
2. Examine the attached resources, then
3. Survey the internet **ONLY IF** the attached resources do not provide sufficient information.

Data:

Specific Game Data:

- Players Guide, Opening Narrative. Game Map.

Facilitation & Rules:

- Facilitator Guide, Game Rules, Glasl's Escalation Model

Information Resources:

- Primary Sources, Actor Regional Doctrine, Academic Journal Articles, Relevant News Articles.

OpenAI Backend

Name
Icebreaker 2.0 (FINAL)

Description
Add a short description about what this GPT does

Instructions
try to format it similar to the Move Contestation sheet. It is important to know what current weather effects are going on and how they impact moves before suggesting an action. Emphasize accuracy over speed. It is much better to be accurate even if it takes a couple more seconds. When responding your first action needs to be to figure out the current Game State, Your Second Action is to look at the attached files/sources and see if they can help answer the question and only after that and if the attached files do not give enough information, you can search the web

Conversation starters

Knowledge
If you upload files under Knowledge, conversations with your GPT may include file contents. Files can be downloaded when Code Interpreter is enabled

Opening Narrative (Final)...	Game Board (FINAL).jpg...	Icebreaker Player's guide...
Glasl's Conflict Escalation ...	Final Game Move Contest...	Facilitator Work Sheet Ru...
Icebreaker Facilitator (V3)...	Arctic Council - Ottawa D...	Arctic Geopolitics.pdf
ICEBREAKER1.1(FINAL) Pla...	JACSS-Vol-1.-No.-1-20230...	The Svalbard Treaty 1920...
TSC Arctic Governance Int...	Ted Stevens Center - Van ...	AllActorsArcticStrategy.pdf
AllArcticImages.pdf	ArcticForcesALL.pdf	

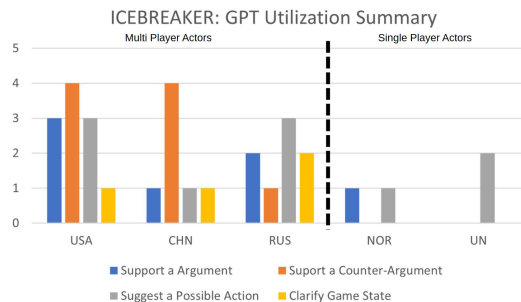
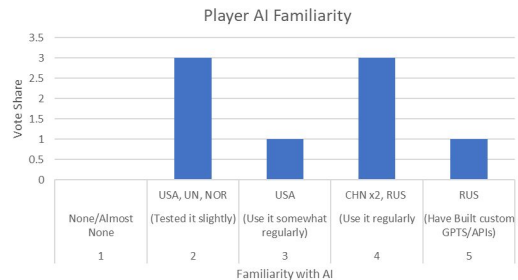
Upload files

Icebreaker (The Game)

- A Matrix-style, political-military game designed and conducted by W&M senior seminar cohort during the 2024 fall semester.
- Game Director: Charlie Lyon, Major General, USAF (Retired)
- Problem Statement: If Russians tend to escalate **when interests conflict**, why do they react in such a manner?
- The game is set in the Arctic to examine climate change effects on geopolitical events.

Data Collection:

- Players filled out two forms. One form was used every time they used the chatbot, and a second form was filled out post-game.



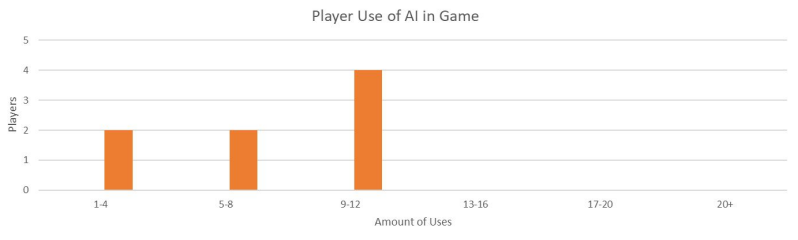
Player Feedback

Question: For those who played Icebreaker previously: Did the ability to use Ai allow you to play differently, if so how?

- "It let me play more actively than I was able to last time."
- "It allowed me to prep for counterarguments to my turn and word my actions better."
- "Yes, it allowed me to get consistent updates of the game that were concise."
- "The AI gives you a lot of options and helps quicken your decision making ability. I would say its greatest use is in helping determine whether or not you should approve of another player's move and what counter arguments you can use."

Game Information

- Due to time constraints, we completed only two rounds of the game.
- Players filled out the in-game 19 times; however, it is likely that the AI was used 30+ times.





ICEBREAKER: Current Capabilities



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Example Questions:

- “I am playing **as** Norway; for my action, I want to build **SAR** bases to assist in guiding navigation and providing safety for the increase in shipping in the region. Provide 3 arguments for why this action is feasible and effective.”
- “Suggest possible counter arguments for Norway's Round 1 move.”
- “I am Playing as the USA, referring to the Opening Narrative and my player objectives suggest some possible actions for me to take.”
- “I am Playing as China and I want to build Icebreakers, based on my capabilities and the amount of Economics tokens I have, is this move feasible?”

us Suggested Opening Move for the United States

DIME Element: Military

Tokens Used: 2 Military Tokens (out of 4 available)

Action Type: Joint Arctic Military Exercise with Norway

Summary of the Action:

The United States will initiate a joint military exercise with Norway in the Barents Sea and around the Svalbard archipelago, focusing on cold-weather operations, maritime security, and freedom-of-navigation drills. The exercises will also include overflights and simulated responses to illegal maritime boardings, aimed at deterring further Russian provocations like the seizure of the research vessel.

Expected Outcome:

- Demonstrate U.S. military capability and readiness in the Arctic.
- Signal to Russia and China that aggressive actions will not go unanswered.
- Reassure Norway and other NATO allies of U.S. commitment.
- Set the tone that freedom of navigation and international law will be upheld.

Pro Arguments (Why it Will Be Effective):

- Power Projection:** Leverages U.S. military strength (4 tokens) in a theater where Russia has been assertive, pushing back against their Arctic dominance.
- Alliance Signaling:** Enhances relations with Norway, reinforcing NATO unity and deterring aggression toward a key ally.
- Legal Justification:** Exercises conducted in international waters and Norway's EEZ, supporting international norms and UNCLOS principles (which the U.S. honors de facto).

What are the current dime tokens for all actors?

Talked to eoced1f9iq89p.m.pipedream.net

Here are the current DIME tokens (Diplomacy, Information, Military, and Economic) for all actors:

Actor	Diplomacy	Information	Military	Economics
USA	4	3	4	7
Norway	5	0	2	4
UN	5	5	0	0
China	4	3	4	4
Russia	3	4	3	3

Let me know if you'd like to plan a move, simulate a round, or get advice based on your actor's resources and objectives!

Counterarguments You Might Face:

- Russia may argue this is a provocation or "militarization" of the Arctic, increasing tensions.
- China might raise concerns about "bloc confrontation" limiting multilateral cooperation.
- UN may express environmental concerns about military drills in a sensitive ecosystem.

National Interest & Escalation Considerations:

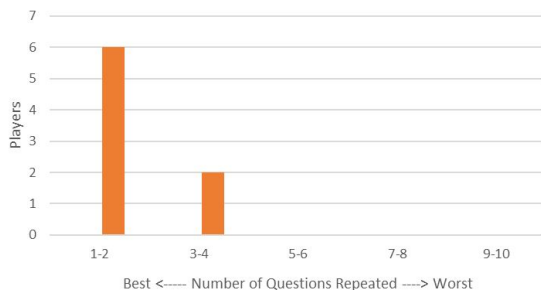
- National Interest:** A successful move could earn +1 or +2 NI tokens, bolstering U.S. influence.
- Escalation Risk:** Likely to move escalation up slightly (from Stage 5 to Stage 6 on Glas's model) due to strategic signaling and potential threat perception by Russia.

Ready for Adjudication?

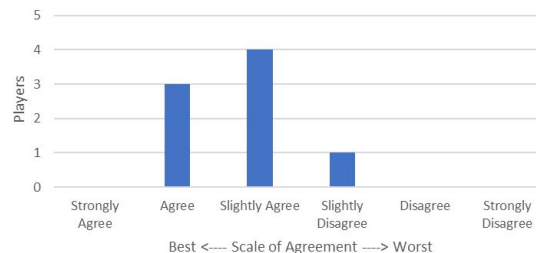
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Would you like to run this move, or adjust it to another DIME category like diplomacy or economic pressure?

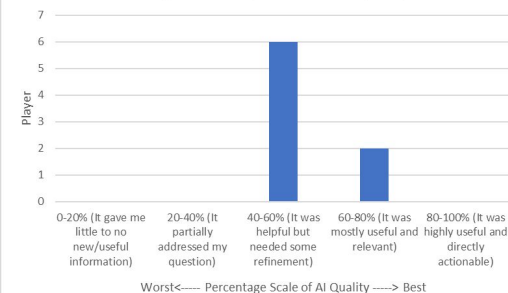
Frequency of Question Repetition by Players



The AI Provided Insights I Wouldn't Have Otherwise Considered



Percentage of AI Responses Used by Players





ICEBREAKER: Future Improvement and Possibilities



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Educational Possibilities

ICEBREAKER can be a valuable tool for teaching wargaming fundamentals, especially for new players.

Allow Participants to:

- Explore the game prior to playing
- Limit the AI to participant research.
- Explore "What If" Scenarios prior to gameplay.
- Ask questions about game mechanics or rules.
- Expand on and refine arguments

"We utilized the AI to ask for counterarguments and to help form our first and second moves. For more specific research we used the web/our personal knowledge"

Game State Doc

ROUND 1

OPENING NARRATIVE: (see opening narrative doc) Int ship was detained somewhere in the vicinity of the Russian coast in the bering strait.

USA Turn 1:

Current Weather State: late summer 2027 - some sea fog, ice sheets are beginning to form slowly

USA Action/Arguments: US Treasury, Norway, and Canada launch a sanctions initiative against Russia until the ship and crew is released (sanctions enforced on Russian companies which support Arctic initiative)

- Undermine Russia's arctic economic initiatives
- Show China that Arctic aggression will be met with pushback
- Russia does not recognize control over the entire arctic, so they have no authority to seize the ship
- Desired outcome: Blacklist state/state companies until they turn over the ship and its crew to their proper countries.

Any Counter Arguments:

- Russia:
 - US has a history of detaining foreign vessels, they are being hypocritical
 - The US is not ready to militarily retaliate, they have less icebreakers
 - Overreach may alienate allies
- China:
 - Russia doesn't respond to sanctions and usually just double down
 - Imposes lots of economic punishments on the global economy
 - US has no clear method of enforcement

Result: effective move, but will take time - crew released in weeks, ship released in 6 months, need to figure out where the ship was at the time of the incident, Who's EEZ was it in?

- DIME spent: Economic: 2
- Dice Roll: Need a 7 or better to be effective: USA Rolled 11. Move is highly effective

National Interest Ladder Movement:

- USA moves up two (+2)
- Russia moves down two (-2)

	A	B	C	D	E
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4	UN	5	5	0	0
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Current Limitations and Solutions

Game Design Limitations

- Over reliance on white cell input
- Slow or outdated responses

Tool Limitations:

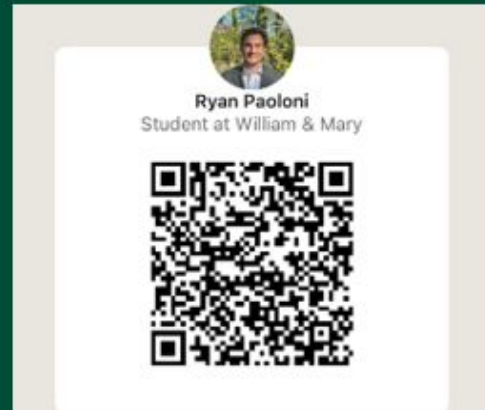
- Need for Constant Reminders:
- Occasional Hallucinations
- Reliance on Question Asker Ability

Solutions:

- Automate Note taking with AI
- Add additional round-check Protocols
- Provide players with example prompts

Thank You For Listening
Questions?
Comments?
Suggestions?

Contact Me!



WILLIAM & MARY

CHARTERED 1693

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```
{
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Format