



# Educational Gaming

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# Bio

- Wargame Designer at CNA
  - AI Wargaming Lead
  - Facilitated 20+ professional games
  - Worked with Joint Staff, IC, State, INDOPACOM, Marines, Navy, etc
- Georgetown MSFS '22 (Science, Tech and Intl. Affairs)
- Educational Engagements
  - Guest lecturer at GU
  - Professional Mentor USNA (2022)
  - Teaching Wargaming Course Fall 2024
  - Alumni Mentor, GUWS



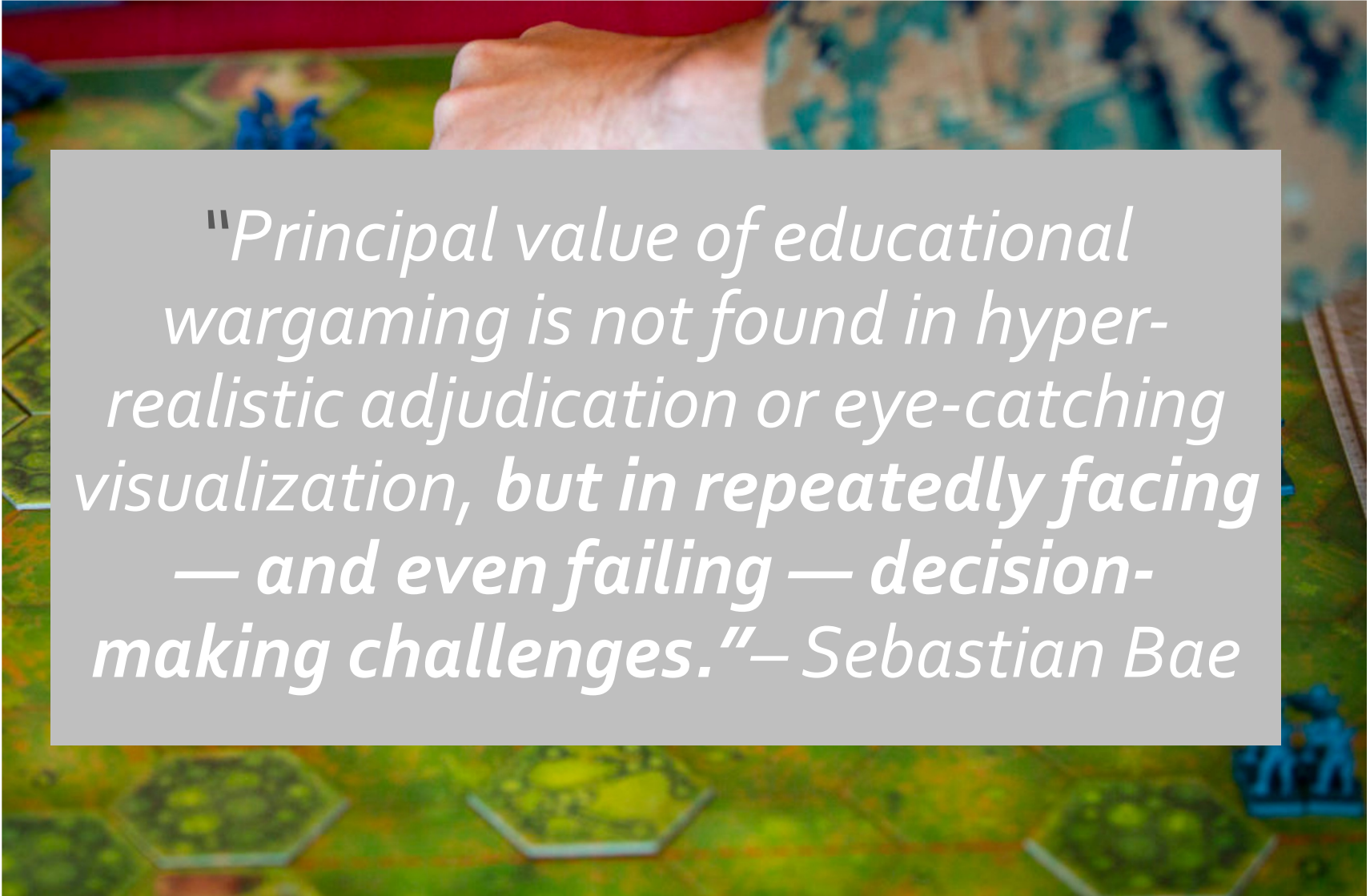
# Educational Wargaming

- We'll take a very broad description of wargames - a decision-making exercise in the context of a scenario
- Analytical vs Educational
  - Analytical (ex: Title 10 Wargame)
    - To create better questions
    - To gather information from players
    - To explore, develop and refine concepts
      - Operating concepts, Force Design, O-plans
  - Educational (ex: Assassins Mace)
    - To convey information
    - To socialize concepts
    - To reinforce learning
    - To practice critical thinking
    - To practice decision making
- Not just war (ignore the name)





## Educational Gaming

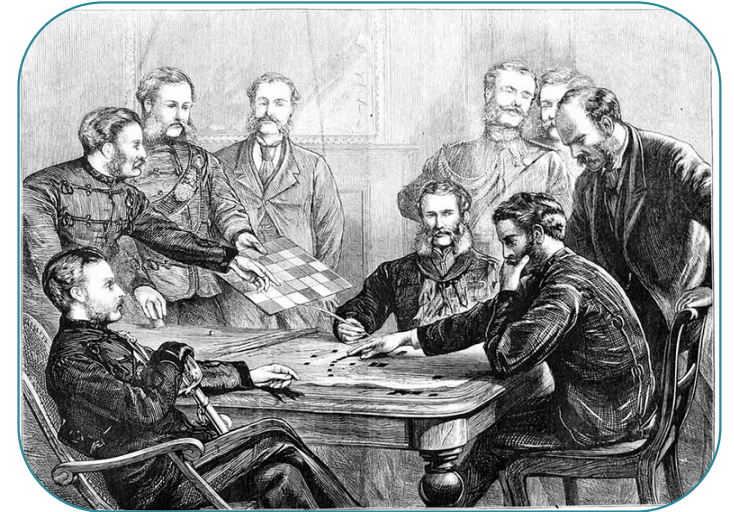


*"Principal value of educational wargaming is not found in hyper-realistic adjudication or eye-catching visualization, but in repeatedly facing — and even failing — decision-making challenges."— Sebastian Bae*



# Historical Examples of Educational Gaming

- Chess and Go as Ancient Wargames for Critical Thinking
- Prussian Kriegsspiel
- Western Tactical Approaches Unit leveraged educational wargaming to teach tactics and disseminate lessons learned to convoy commanders during the Battle of the Atlantic
- Interwar games in Navy
- Cold War
  - Navy: SEATAG, Harpoon
  - Army: Dunn-Kempf Wargame



# Benefits

- Wargames allow students to **recognize patterns, understand the changing dynamics of conflict, assess risk, and learn from history.**
- Create a free-to-fail space for creativity
- A chance to apply class objectives and course knowledge (for school)
- Participants are forced to make decisions within the game and consider the consequences of diverse actions.
- Bring together different participants
  - Ex: interagency resources
- Fun!



# Reinforce Learning

- Consequences
- Magic Circle (immersion)
- Ex:
  - *Twilight Struggle* => Cold War History
  - *Littoral Commander* => Emission, ISR, FD2030
  - *Race to Rhine* => logistics
  - *Kriegsspiel* => intelligence





# Reinforce Learning: Georgetown



# Freedom to Fail

- Practice decision-making
- Often work in environments where the cost of failure is high





# Creativity & Empathy

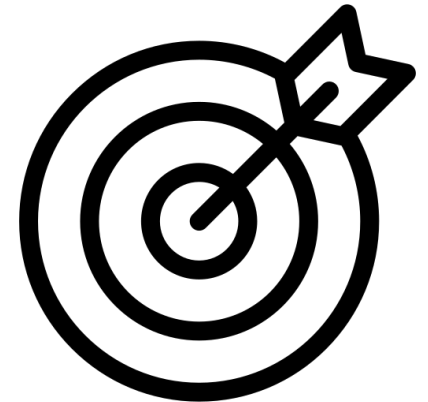
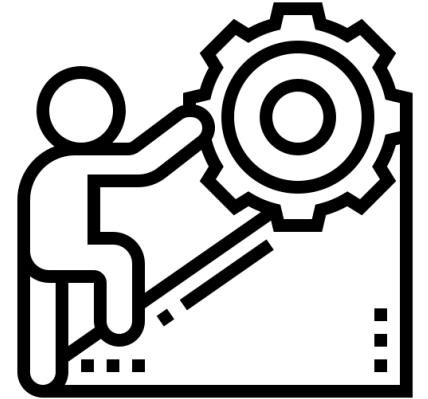
- Creativity w/in context and rules
- Example: *At Any Cost: IUU Fishing*



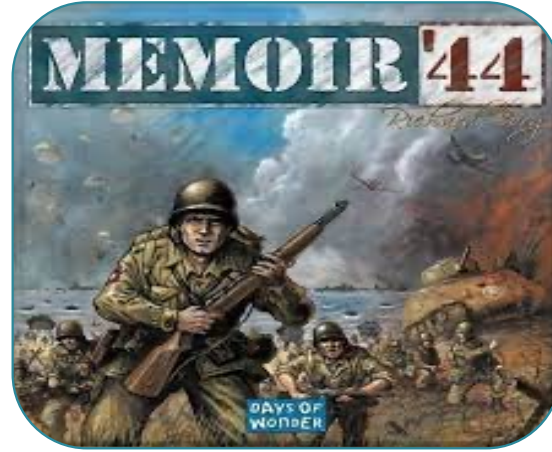


# Challenges

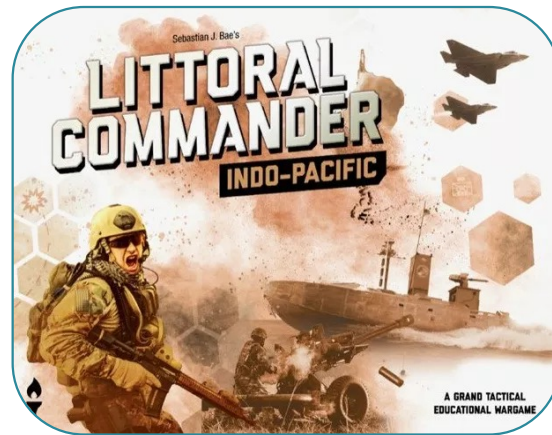
- Getting buy-in from leadership (professors, military leadership)
- You do not get to pick your participants
- Limited time w/ the need to get students to a baseline to play
  - *Note: Don't need to know how play well, just well enough*
- We need to avoid negative learning.
- Lots of practical experience concentrated in DC, centers around DoD, and elite Universities



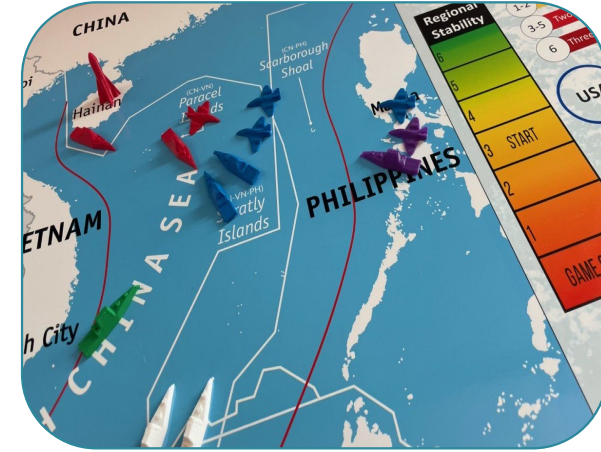
# Sampling of Educational Games Types



Commercial/Hobby



Custom Educational



Matrix or Seminar Games

Not Covered Today:  
Digital Wargames  
Command Post  
Exercises

# Commercial or Hobby

- Leveraging “off the shelf game”
- Option to modify rules, add discussion, etc to better meet objective
- Pro:
  - Easy to access
  - Play tested and balanced for you
  - More likely to focus on “fun” for participants
- Challenges:
  - May not highlight the specific area your interested in
  - May feel “unprofessional”
  - May prioritize fun over historical accuracy
- Example Use Cases:
  - Leverage in history class
  - When a “good enough solution will do”
  - When just need to practice decision making





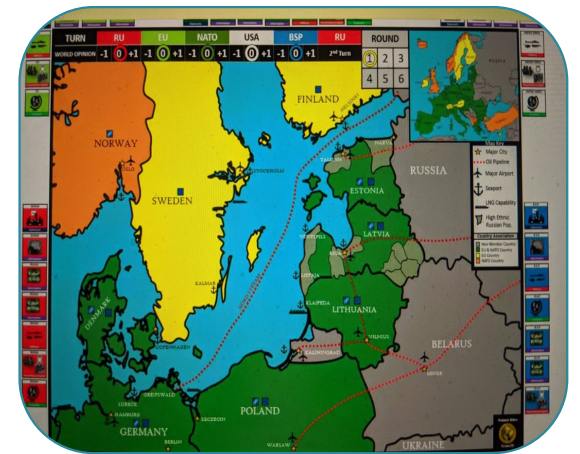
# Custom Educational

- Games designed for a specific semi- or fully professional audience
- Tailored to model/teach/demonstrate a specific topic
- Examples: OWS, Littoral Commander, Thor's Hammer, Major's Gambit
- Pros:
  - Focused and bespoke
  - Greater emphasize on plausibility or realism
- Con
  - Usually not commercially available/limits to access
  - Mores expensive vs commercial alternatives (though not hugely so)
- Example Use Cases
  - Professional Context
  - When alternatives don't exist
  - When designers available



# Matrix

- Discussion or argumentation based games
- Usually involve a semi-rigid rule set in which players describe actions and support with argumentation
- Often relies on experience of either facilitators or players to make “good enough” judgments about plausibility
- Pro
  - Easy to design and stand up
  - Flexible system of adjudication
- Con
  - Requires subject matter expertise
  - Outcomes, consequences and focus depend on players actions and facilitation
- Example Use Cases
  - Professional contexts where players have level pre-existing knowledge about subject
  - When rigid rules/hobby don't exist and time/funding doesn't allow for custom games



# Tips for getting started

- Tips for starting: Pick games you know and know the subject
- Body of literature: “Playing Through History,” Game base learning
- Discussion and Learning is the point, not winning
- To avoid mis-learning
  - **HOTWASH is KEY**
  - Match game to object



# Examples of Professional Resources

- **War colleges**

- USNA
- Navy Post Grad
- Command SCG
- National Defense University
- Air War College
- Army War College

- **DC Schools**

- JHU
- GW Strategic Crisis Simulation (GWUSCS)
- Georgetown University (GU)

- **Societies**

- GUWS
- Women's Wargaming Network (WNN)
- Pax Sims
- Connections (US, UK, etc)
- Connections Next





Questions?



Come  
Connect!

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