

# Mitigating Bias - Lessons Learned: An Interactive Experience Featuring Lady Whistledown, The Mandalorian and David Rose



# Mitigating Bias - Lessons Learned: An Interactive Experience Featuring Lady Whistledown, The Mandalorian and David Rose



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# Overview

- Define 3 types of bias
- Examine 3 “real-world” scenarios
- Discuss best practices for mitigating bias



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# What is Bias?

- The unintentional misrepresentation of data due to expectations or outside influences
  - Cognitive Bias
  - Contextual Bias
  - Cultural Bias

# Cognitive Bias

- The brain forms patterns to make sense of the world around us based on expectations from previous experiences

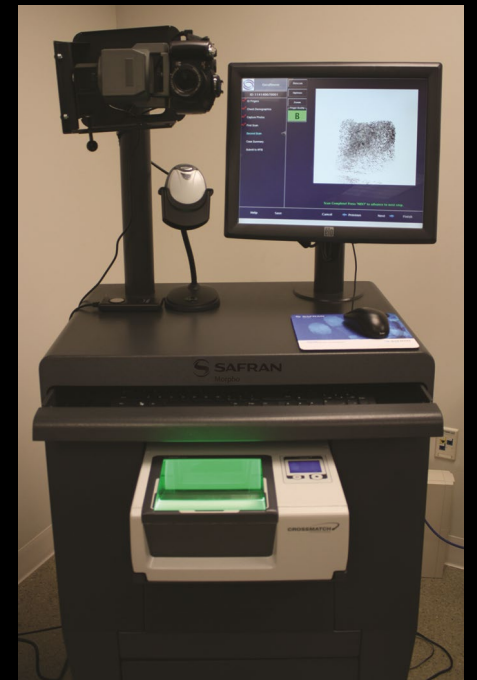
According to a research at Cambridge University, it doesn't matter in what order the letters in a word are, the only important thing is that the first and last letter be at the right place. The rest can be a total mess and you can still read it without problem. This is because the human mind does not read every letter by itself, but the word as a whole.

# Cognitive Bias



# Contextual Bias

- Contextual information that influences the outcome of an analysis
  - Access to unnecessary case information/reports
    - Provided with suspect information
    - Suspect's criminal record
    - Case briefings
    - Detective says, "That's the guy!"
  - Over-reliance on technology
    - AFIS candidate returns
  - Verifications





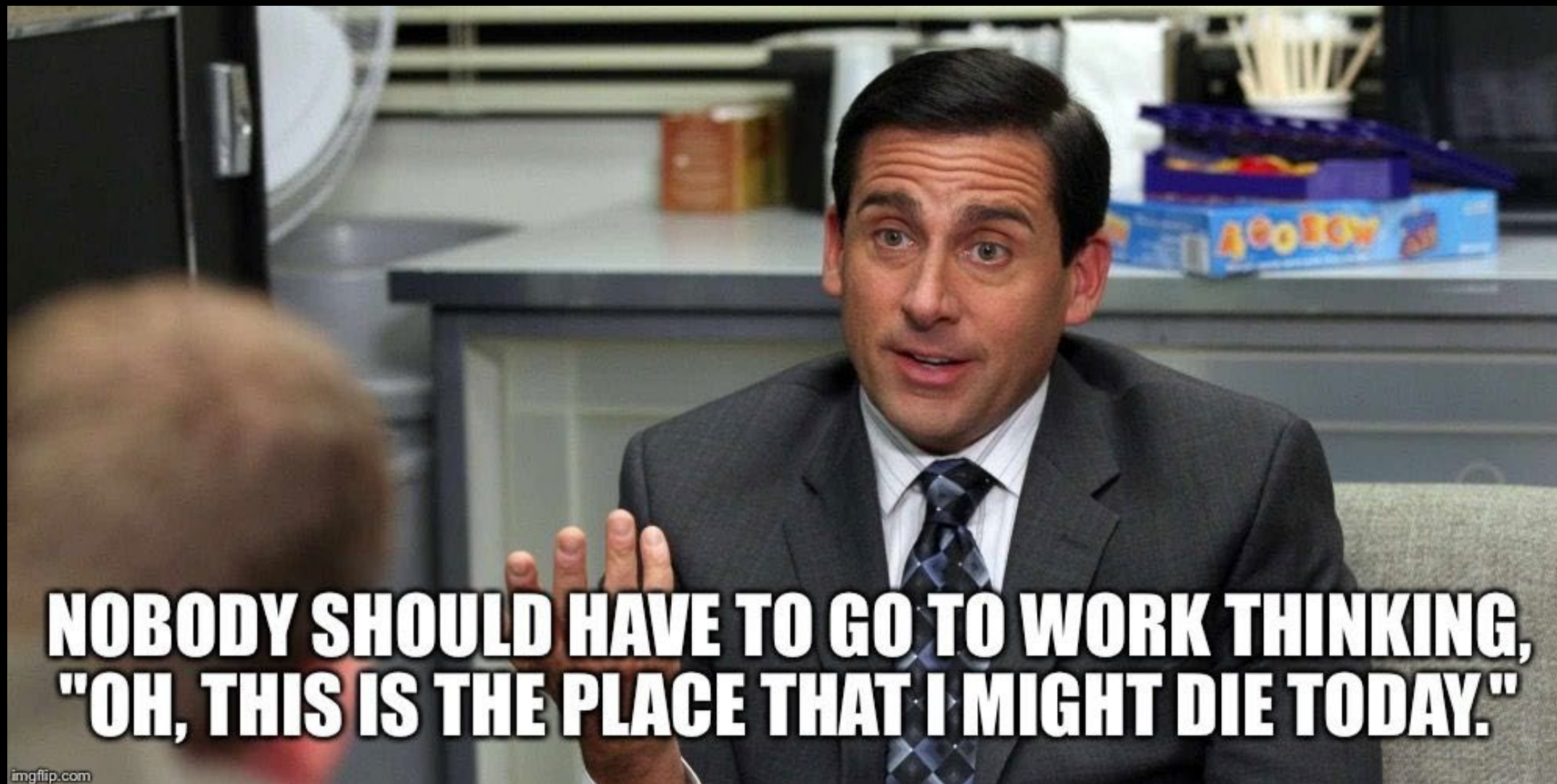
# Contextual Bias



# Cultural Bias

- Cultural bias
  - Pressure from management
  - Punitive consequences for erroneous identifications
  - Heavy caseload/quotas
  - Short turnaround times
  - High profile cases
  - Adversarial criminal justice system

# Cultural Bias

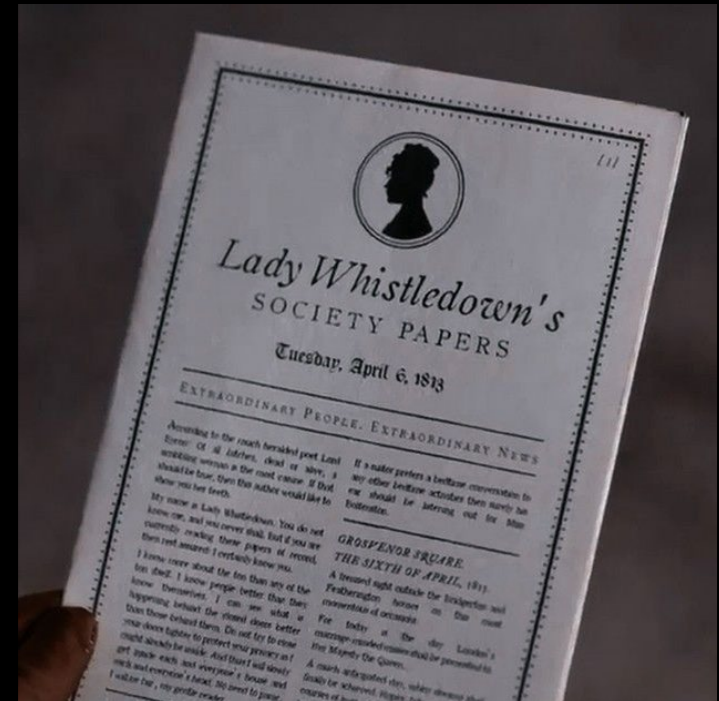


# Quick Review

- 3 Types of Bias
  - Cognitive
    - Innate expectations influence conclusions
  - Contextual
    - Contextual data influences conclusions
  - Cultural
    - Influences/stressors in the work environment

# Scenario #1

- Lady Whistledown seems to know a lot of details about her cases
- Whistledown claims that it helps her do comparisons more quickly
- Whenever she does (non-blind) verifications for her coworkers, her conclusions are always in agreement

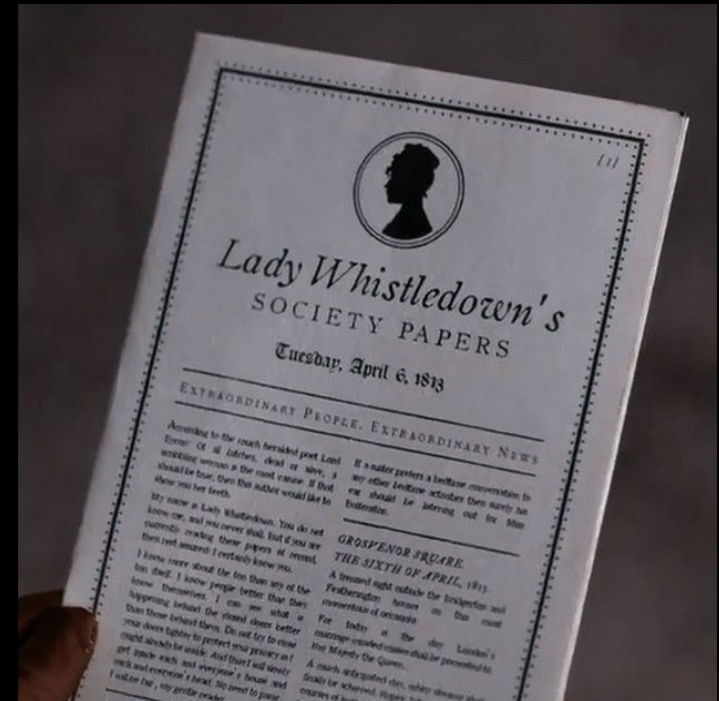


POLL: What type of bias is represented in this scenario?

- Cognitive
- Contextual
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# Scenario #1

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## Scenario #2



- The Mandalorian (aka Mando) is trying to find the kidnapped Grogu
- Four latent prints were recovered from the ship
  - 3 identified to Grogu
  - 1 compared to the suspect, Moff Gideon
  - Mando noted features in agreement, but not quite enough to confidently identify the print
- Upon consultation, Bo-Katan identified the print to Gideon
- Bo-Katan tells Mando “It is our job to give them an answer. This is the way.”
- Mando changes his conclusion to identification



POLL: What type of bias is represented in this scenario?

- Cognitive
- Contextual
- Cultural
- Contextual and cognitive
- **Contextual and cultural**



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# Scenario #3



- David Rose searched a latent print in AFIS
- He compared the print with candidate #1, noted 10 minutiae in agreement, some in areas of distortion, and made an identification conclusion
- Patrick reviewed the case, noted some dissimilarities and called it an exclusion
- Without communicating the difference of opinion with David, Patrick notified Stevie (Section Supervisor)
- 3 days later Stevie set up a meeting with David to confront him about the erroneous ID and pull him off case work

POLL: What type of bias is represented in this scenario?

- Cognitive
- Contextual
- Cultural
- **All of the above**
- Cultural and Contextual

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# Best Practices to Minimize Bias

- Interpreting evidence rather than determining guilt
- Training
- Implementation of current best practices
- Supportive cultural climate
- Discipline-wide research

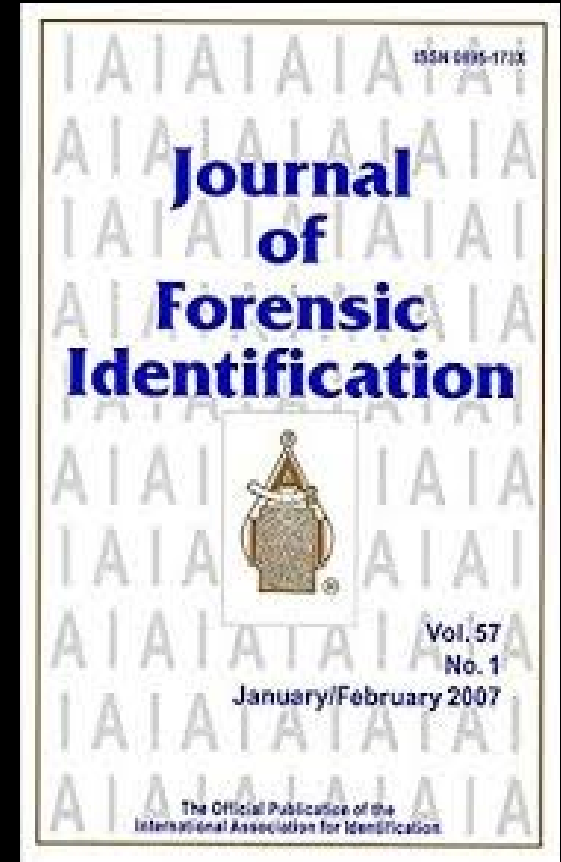
# Best Practices to Minimize Bias

- Interpreting evidence rather than determining guilt
  - Look for discrepancies rather than similarities
  - Adversarial system – forensic scientists do not “take sides”



# Best Practices to Minimize Bias

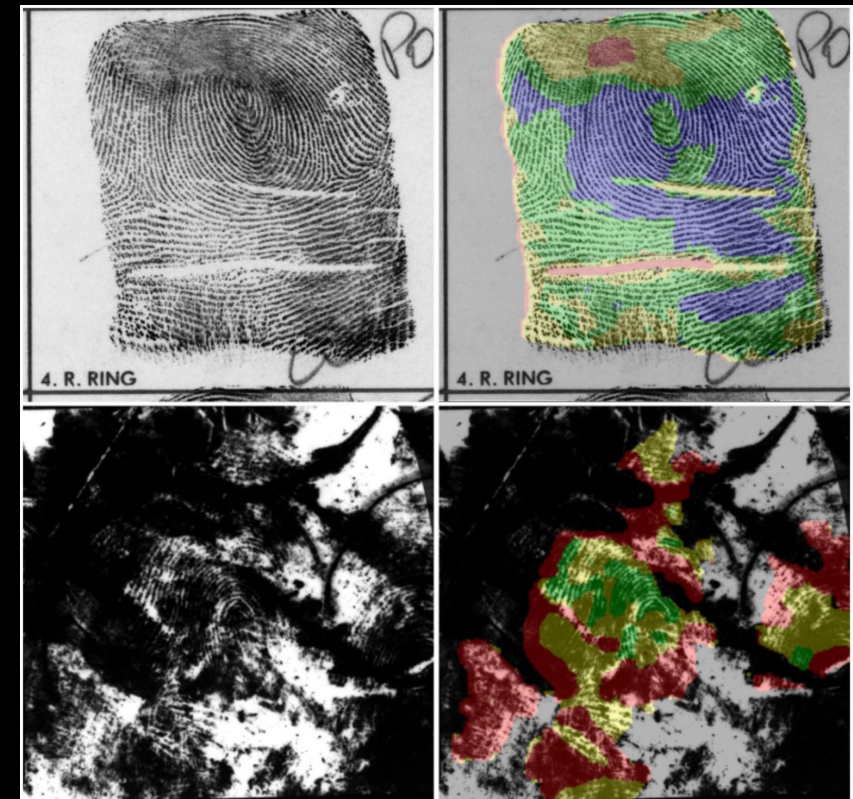
- Training
  - Initial intensive training program
  - Annual training
    - Professional trainings
    - Conferences
    - Publications





# Best Practices to Minimize Bias

- Implementation of current best practices
  - Quality assurance measures
  - SOPs
    - Update as new research/best practices emerge
  - Transparency in documentation
    - Thorough documentation throughout ACE-V (quality mapping, GYRO, bench notes)
    - Report/testimony that indicates the limitations of the analysis
    - Discovery



# Best Practices to Minimize Bias

- Implementation of current best practices
  - Blind verification
  - Linear sequential unmasking
  - Case manager
    - Limiting access to extraneous case information

# Best Practices to Minimize Bias

- Supportive cultural climate
  - Consultations
  - Conflict resolution policy
  - Mistakes viewed as learning opportunities

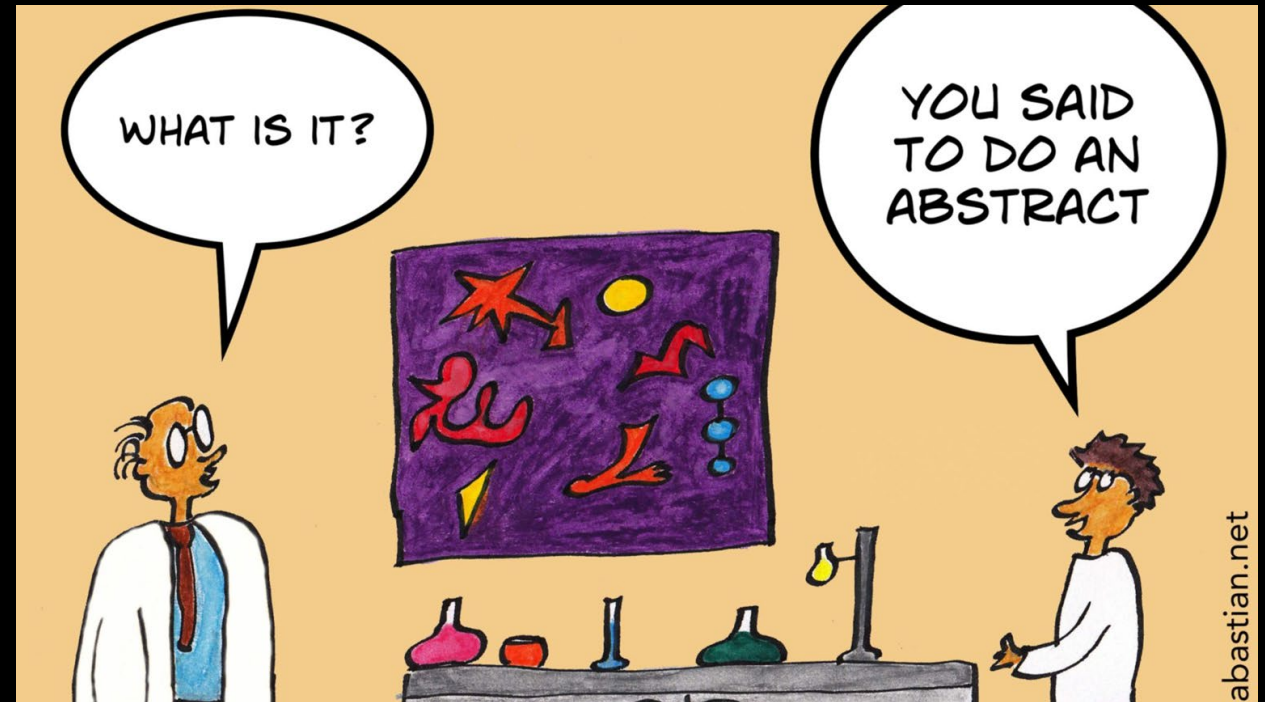
per·sist·ence  
*(noun)*

When determination  
exceeds doubt



# Best Practices to Minimize Bias

- Discipline-wide research
  - Continued research into the decision-making process
    - White box studies
    - Bias studies



# Best Practices to Minimize Bias

- **Lady Whistledown** learned to limit her access to contextual information and conduct blind verifications.
- **Mando's** agency implemented a conflict resolution policy and he learned to not be influenced by his colleagues' conclusions.
- **David Rose** learned not to put too much stake in AFIS scores and to actively look for dissimilarities when comparing prints. His department implemented consultations, a conflict resolution policy and now approaches errors as training opportunities.

# References

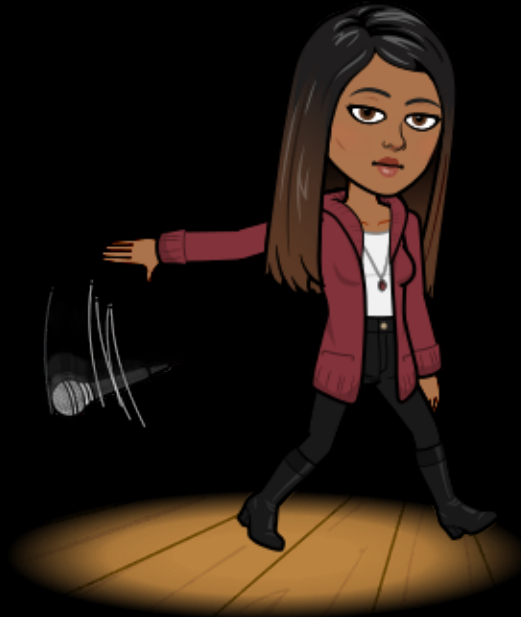
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# Questions?

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