Project ZZ: Using Machine Learning to Detect Anti-Establishment Sentiments in Reverse Audio Rock-n-Roll Recordings

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Project ZZ Goals

- **Problem:**
  - How do we deploy machine learning tools to automatically seek out and detect planted content in reverse audio recordings (i.e., back-masking) of popular music?
- Product 1: An algorithm/tool to perpetually scan the internet for commercially released popular music offerings, and maintain a database of recordings that have / need to be scanned
  - Tie into existing recording industry products if possible
- Product 2: An NLP-type algorithm to seek out back-masked speech in audio recordings, perhaps taking specific advantage of contextual information to reduce noise
- Product 3: A report generator that ranks elements of the database according to their risk posture for planted content, and presents them in ranked order to be manually validated

Week 1 - Team MN: Hierarchical Identify Verify Exploit

- Obtained audio recordings that are known to have reverse audio speech (not necessarily anti-establishment), and transcribed the speech
- Spoke with sponsor and mentors about specific goals and deliverables
- Investigated public access databases of commercial audio recordings
- Investigated open source NLP packages that might be suitable for this project

Project ZZ: Next steps

- Identify more known (and suspected) recordings with back-masking
  - Especially those that are a stretch and whose authors deny any backmasking
- Do more preliminary research before coding attempts.
- Challenge: Can we exploit reinforcement learning by generating our own back-masked training set, coupled with known back-masked recordings?