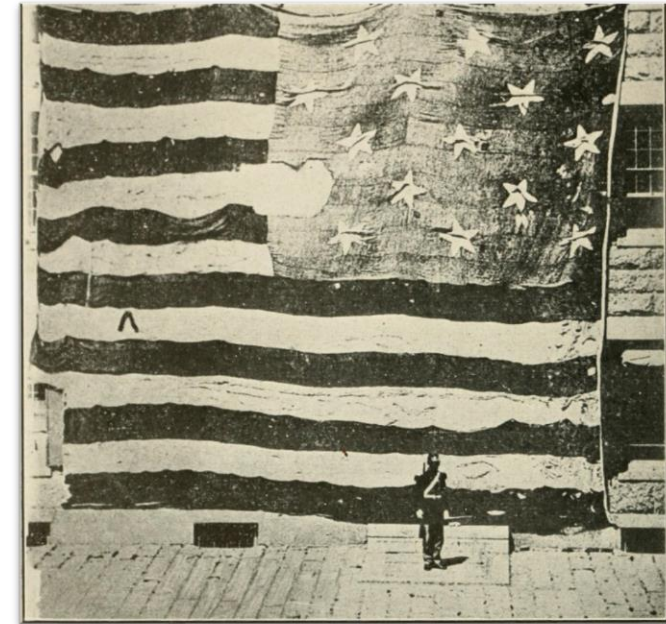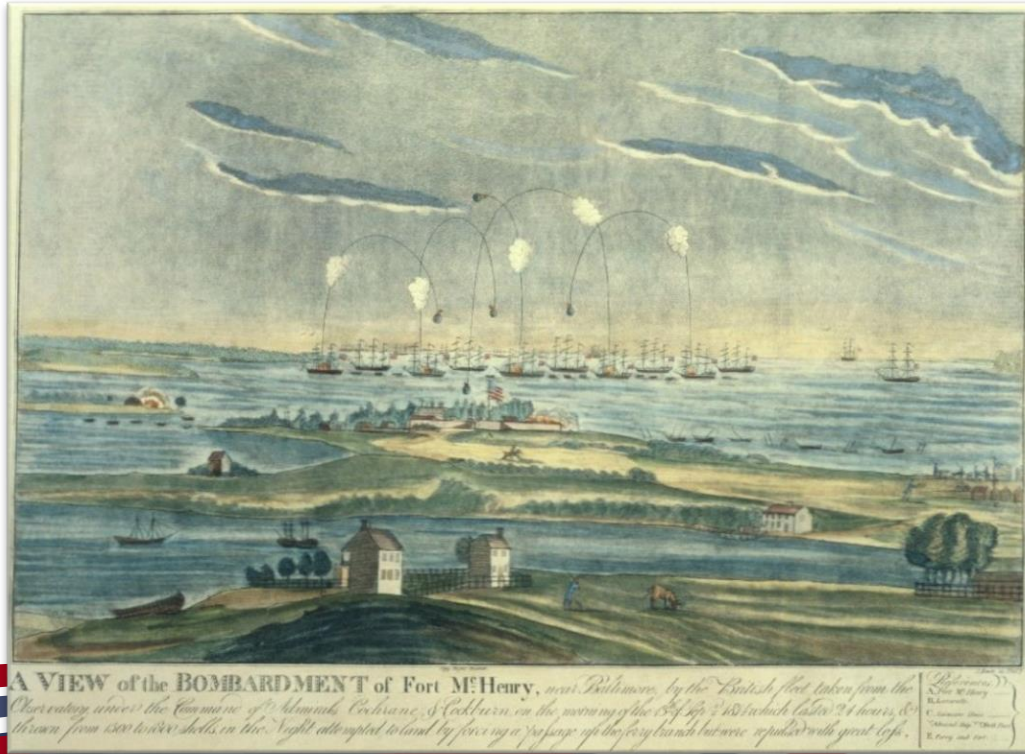# DeepFlag: The Deep-Learning Flag Generator

Jaeseok "Jay" Park

A National Flag Embodies the Identity, Spirit, and Soul of its Citizens

Actual flag
(Now at The Smithsonian)

Flags are Extensively Used in Maritime Signalling
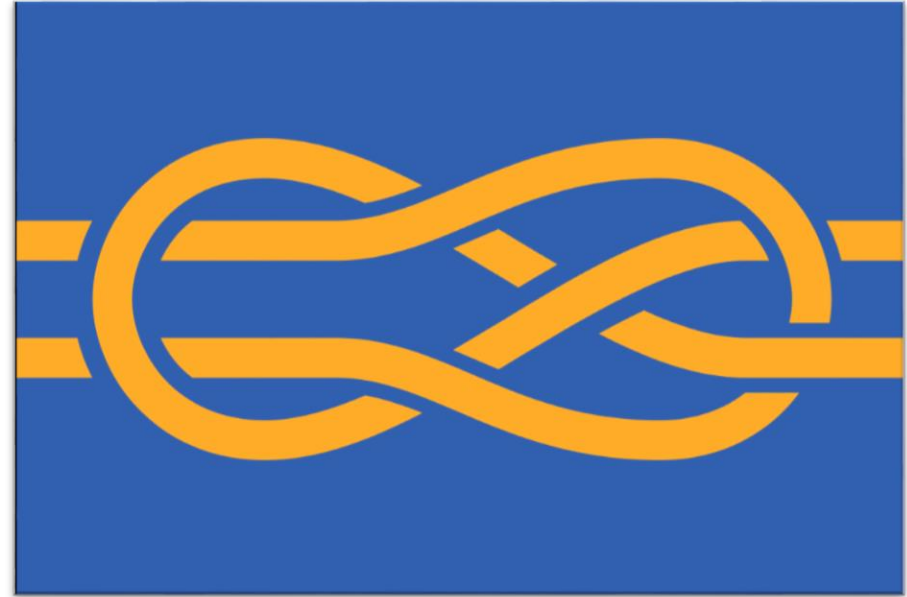
Vexillology is the Study of Flags

Designing New Flags is Difficult

COLONY, STATE, NATION, FIRE BRIGADE, OR YACHT CLUB?

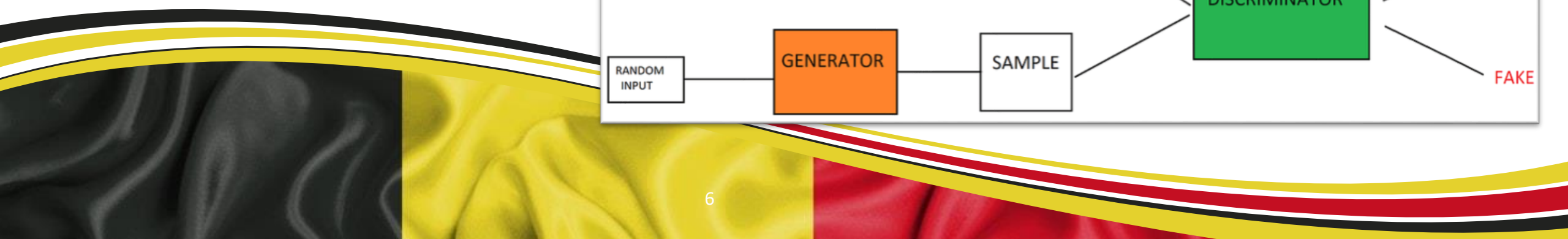# Q: Can We Generate Novel, New Flags Using Neural Networks?

- Scraped 1300 flags of nation-states, municipalities, organizations, and custom-made flags

- Utilized the Generative Adversarial Network (GAN) framework
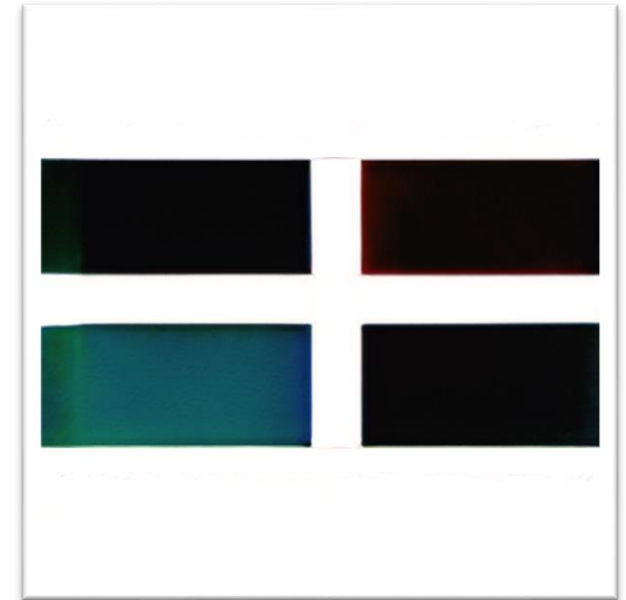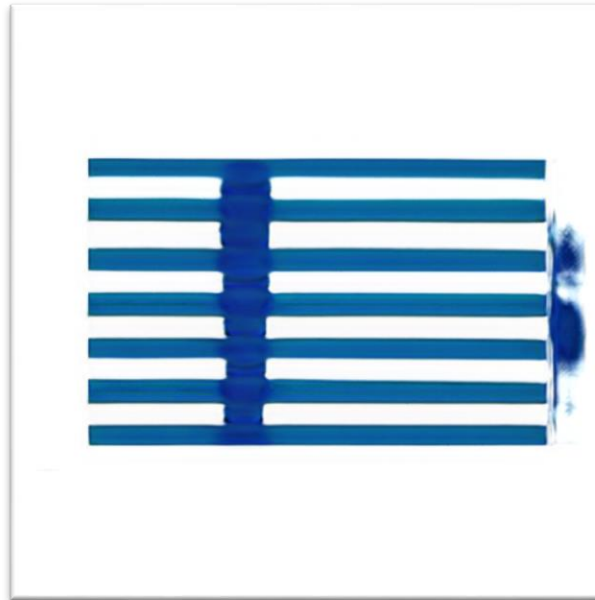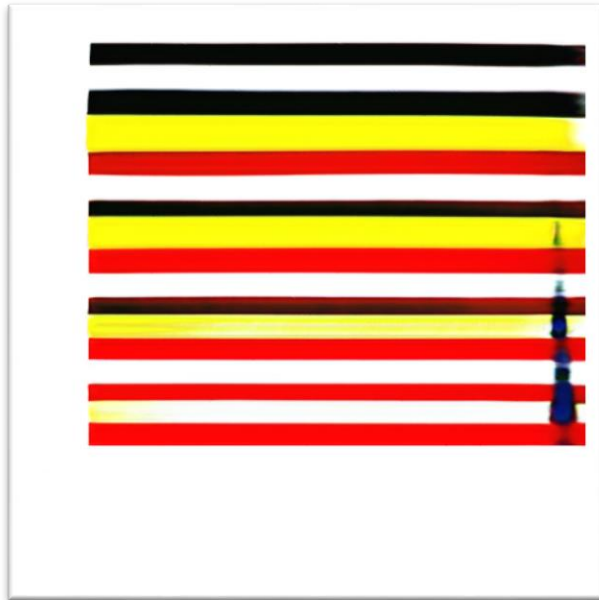 - (StyleGAN2-ADA, developed by NVIDIA)

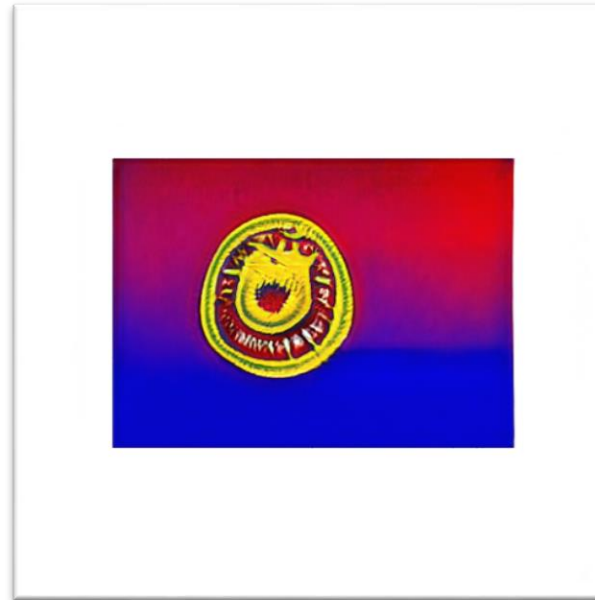# Pattern 1: Strong Colors, High Contrast
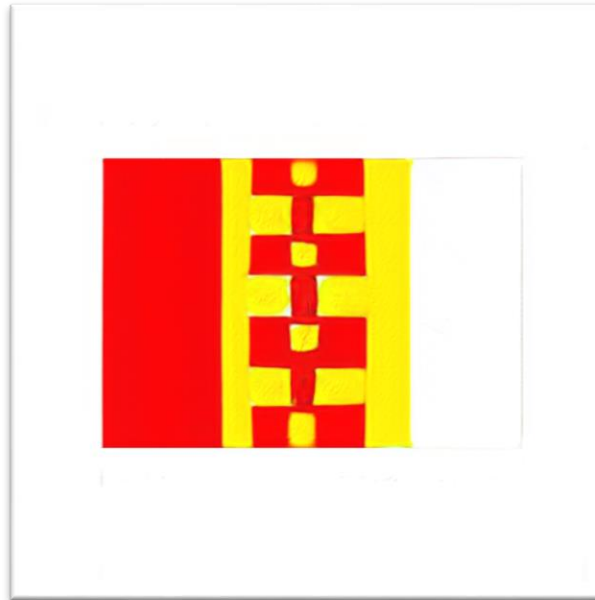
Pattern 2: Horizontal/Vertical Lines
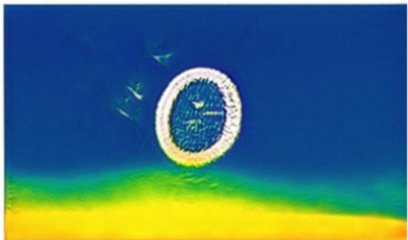
Pattern 3: "Middle Emblem"

The New Zealand Flag Does Not Follow Common Patterns

- Silver Fern
  - Complexity
  - Placement
- Colors
  - Usage of black
  - Black/blue contrast

Conclusion and Future Directions

- Flags tend to have general patterns
- Nevertheless, DeepFlag generates some novel combinations
- Good repertoire of references
- Flag-art?

References

- Slides from © Copyright **PresentationGO.com** – The free PowerPoint and Google Slides template library

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THANK YOU!