

## Project: Generated Pokemon Cards

We want to generate Pokemon trading cards based on the current existing set of cards. The current trading cards have several different features we are hoping to generate:

- Image
- Ability (optional)
- Attack (between 1-3)
  - Name
  - Cost (type)
  - Damage
- Type
- Stage (optional)
- HP
- Resistance/weakness (type with amount)
- Retreat cost

**Technical Paper** -- Latent Predictor Networks for Code Generation:

<https://arxiv.org/pdf/1603.06744.pdf>

**Interpretive** -- The AI That Learned Magic (the Gathering):

[https://motherboard.vice.com/en\\_us/article/bmjke3/the-ai-that-learned-magic-the-gathering](https://motherboard.vice.com/en_us/article/bmjke3/the-ai-that-learned-magic-the-gathering)

**Relevant Code/Databases:**

<https://pokemontcg.io/>

<https://github.com/PokemonTCG/pokemon-tcg-api>

<https://github.com/PokemonTCG/pokemon-tcg-data/>

<https://github.com/Guernouille/pokeplayer/tree/master/database>

<http://pokeplayer.com/cardex/search>

**Discussion Questions:**

1. Latent Predictor Networks are useful for generating trading cards because they allow the network to train on multiple predictors for a single output. What other things might you use them to generate?
2. The last section of The AI That Learned Magic discusses the need for human writers/designers, stating that:

"The question then is whether an AI can give players such unique, compelling experiences," he says. "That's still an open question."

Do you believe that this is the case? What does the future of design look like and what is the role of human authorship in it?