



# PlebMTG

MTG for the commoner

# Problem



## Price History



Priced increase by 700% in 4 years

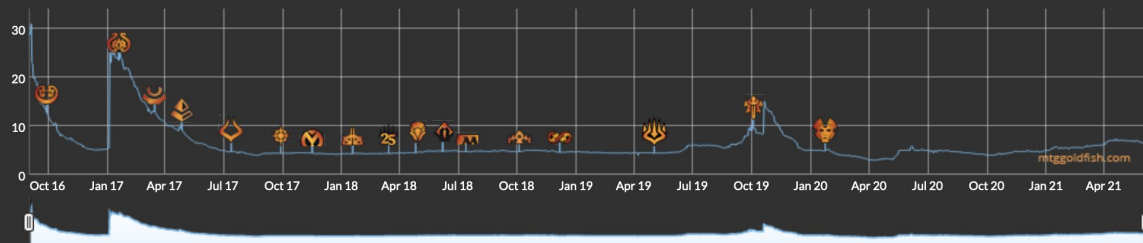
# Problem



## Price History

Tabletop

MTGO



Spread  
Highest Buylist  
Foil Multiplier

51% Daily Change  
2.30 Weekly Change  
3.1x Highest Price  
Lowest Price

+0.05  
-0.14  
30.94  
2.99

Priced decreased by 1000% in 7 months

# Motivation


- Utilize statistics to maximize player resources
- Allow players to better understand the card characteristics that influence price



# Demo

[Toggle light mode](#)

**plebMTG**



Statistical results: [Open statistical results](#)

Search results: [Open search results](#)

Statistical results: [Refresh data](#)

**Please insert MTG search parameters here**

Note: this app only contains information for non-basic land, non-promo and non-foil cards in Standard

Card Name:  Card:

Number of similar cards to show:  Selection: 10

[Start Search](#)



# Data

Color: Green, Black

Mana cost

Color: Blue



Life modifier

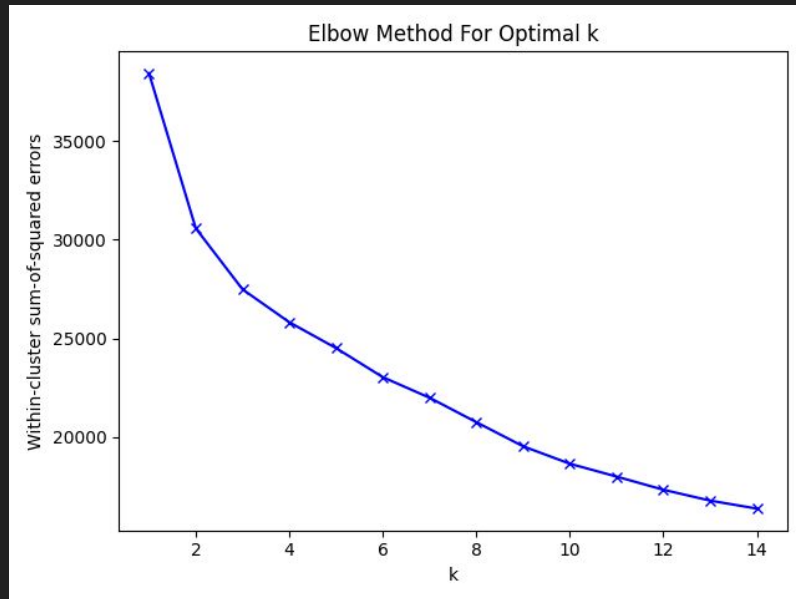
keywords

type/subtype

power/toughness

# Models

- K-means clustering (Euclidean distance): Silhouette score 0.128
- Generalized estimating equations (GEE)
- Linear regression
- Automated choosing of best  $k$
- Filtering important variables with  $p\text{-value} < 0.05$



# Insight

- Card prices decrease the older the card is, but the association is weak
- White cards are cheaper and green cards tend to have higher prices
- In the current Standard
  - Cards with the human creature subtype have lower prices
  - Cards that allow players to Scry have lower prices





# Limitations

- Free AWS resources are too limited for data refresh ... (and I'm poor)
- Cannot accumulate price data due to potential schema changes





Thank you!

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