Recording Studio

Client Data Pipeline

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Content

Welcome to your Mock Client Tracking Outline! I have created some metrics and use cases that you may find relevant to the set up, marketing, and event coordination of your new recording studio venture.

1 Metrics

2 Visualizations

3 Geospatial Analysis (Client location tracking)

4 Machine Learning Applications

5 Client Database ~ SQL Friendly

6 Timeline

We want to track metrics that will help us understand our clients better, and inform our business practices

Address

This will help us coordinate targeted events in places that clients are centralized

Subscription Type

Year long, monthly, etc

Genre

Pop, rock, hip hop, rap, etc.

Content Type

- Album
- Single
- Demo
- Podcast

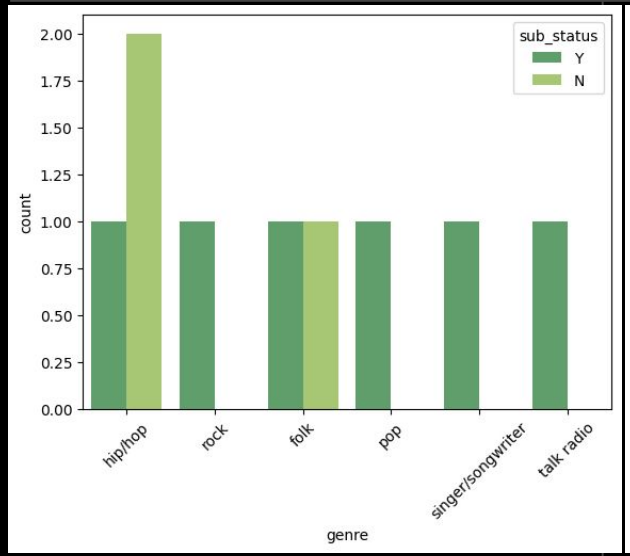
Gender, Age, ethnicity

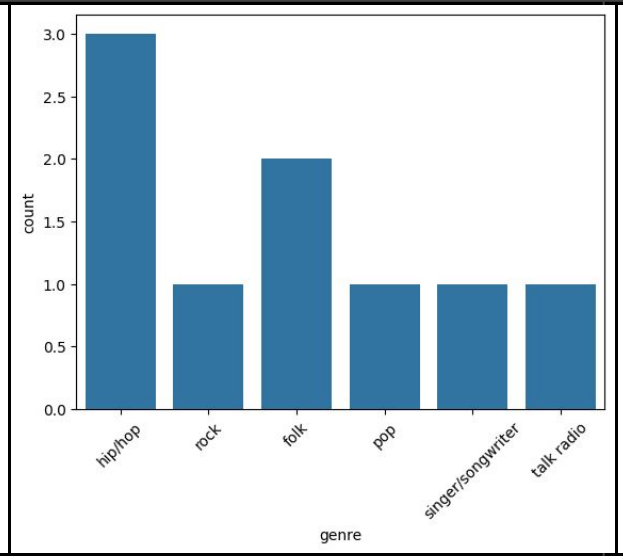
Who's coming to the studio?

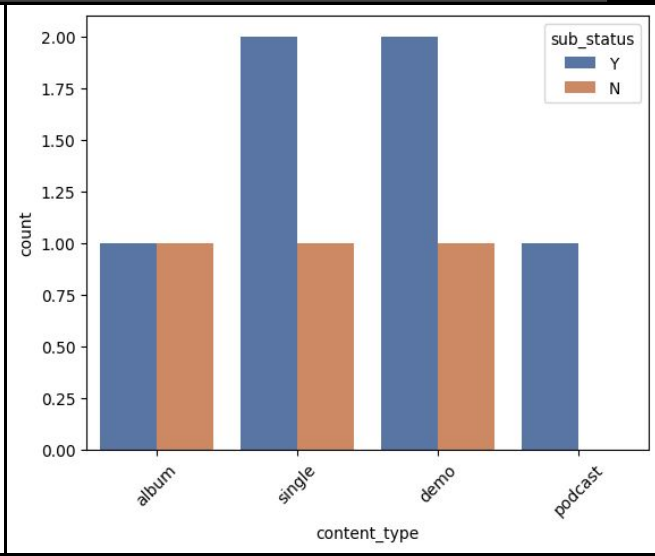
Link to coding file with example data: https://github.com/GEMcordelli/Personal-Projects/blob/main/Mock_Client_Data_Crescendo.ipynb

Visualizations

Charts & Graphs cement patterns in a visual context, and sometimes reveal trends we didn't know were there







Genre count by Subscription Status

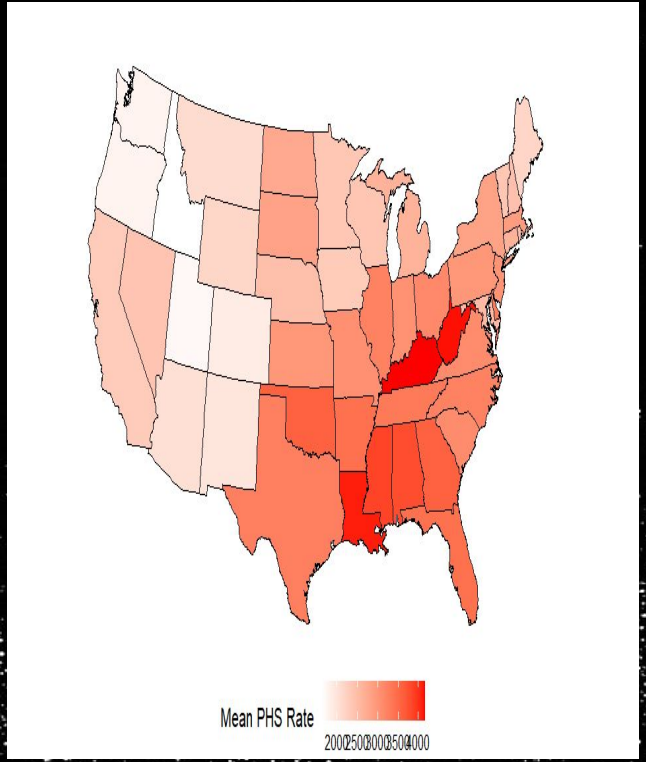
- This shows us what genres are more frequently subscribed vs unsubscribed while your services

Genre Raw Counts

Raw counts are useful because you can see overall what is most popular amongst your clients

Content Type by Subscription Status

This can be very helpful when determining what kind of resources are most important for your studio to have (isolation booths, audio engineers, podcast equipment). Knowing if most users are subscribed or not can qualify each resource's urgency



This is an example of a heatmap from a previous project. This can be done on a map of Virginia (or DMV) based on client data in the future

Client Address

Quarter, Year

We can convert client's address to longitude and latitudinal coordinates. This can be overlaid onto a map of Virginia using *HEATMAP TECHNIQUES* *(pictured on the left)*

HEATMAP: The shading will be more intense in client "hotspots" across the DMV

WMATA Metro Lines

We can overlay the heat map with color coordinated representations of the different metro lines that are near the client hotspots

This will help tell you where to coordinate future outreach events, or expand in other ways

Machine Learning

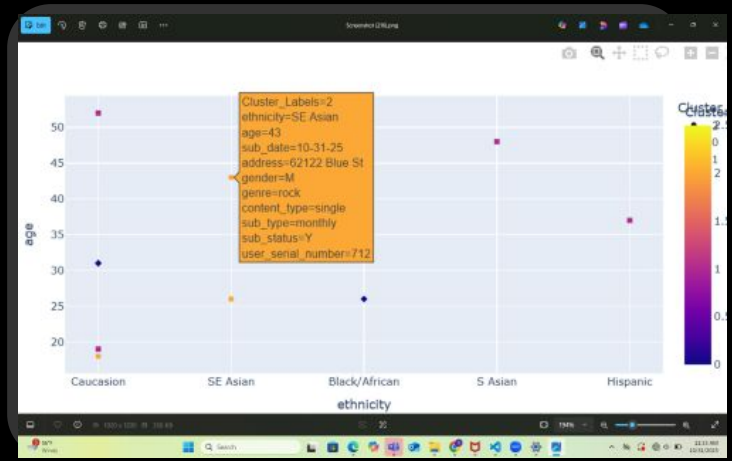
Machine Learning Algorithms are great for predicting future patterns, getting a quantitative look at what variables are most important to long client relationships, and more!

```
ethnicity       0.869583
sub_date        0.516668
genre           0.467765
gender          0.326458
content_type    0.258758
address         0.154809
age             0.071944
dtype: float64
```

This list represents *Variable Importance*. It tells us what factors are most relevant when determining if a client is subscribed. The higher values are more relevant

Cluster Algorithms

This graph shows cluster groupings. This is a Machine Learning Algorithm that groups clients based on their similarities. This can tell you more about client archetypes, as you expand



Using SQLite for Offsite Data Storage

Client Database

SQLite provides a light-weight, disk-based database. We are using it to prototype the storage of a client data table called "clients". This data is retrievable using SQL commands

Example Usage of our Clients Table

```
res = cur.execute("SELECT * FROM clients")
res.fetchone()
('10-24-25',
 '20000 Red St',
 '18',
 'M',
 'Caucasion',
 'hip/hop',
 'album',
 'monthly',
 'Y',
 '161')
```

Timeline

Immediate

Metrics

Collection, cleaning AND regular analysis

Immediate

Visualizations

Will become more accurate as time goes on, but can help show some early trends; however smaller samples overinflate importance!!

Growth Based

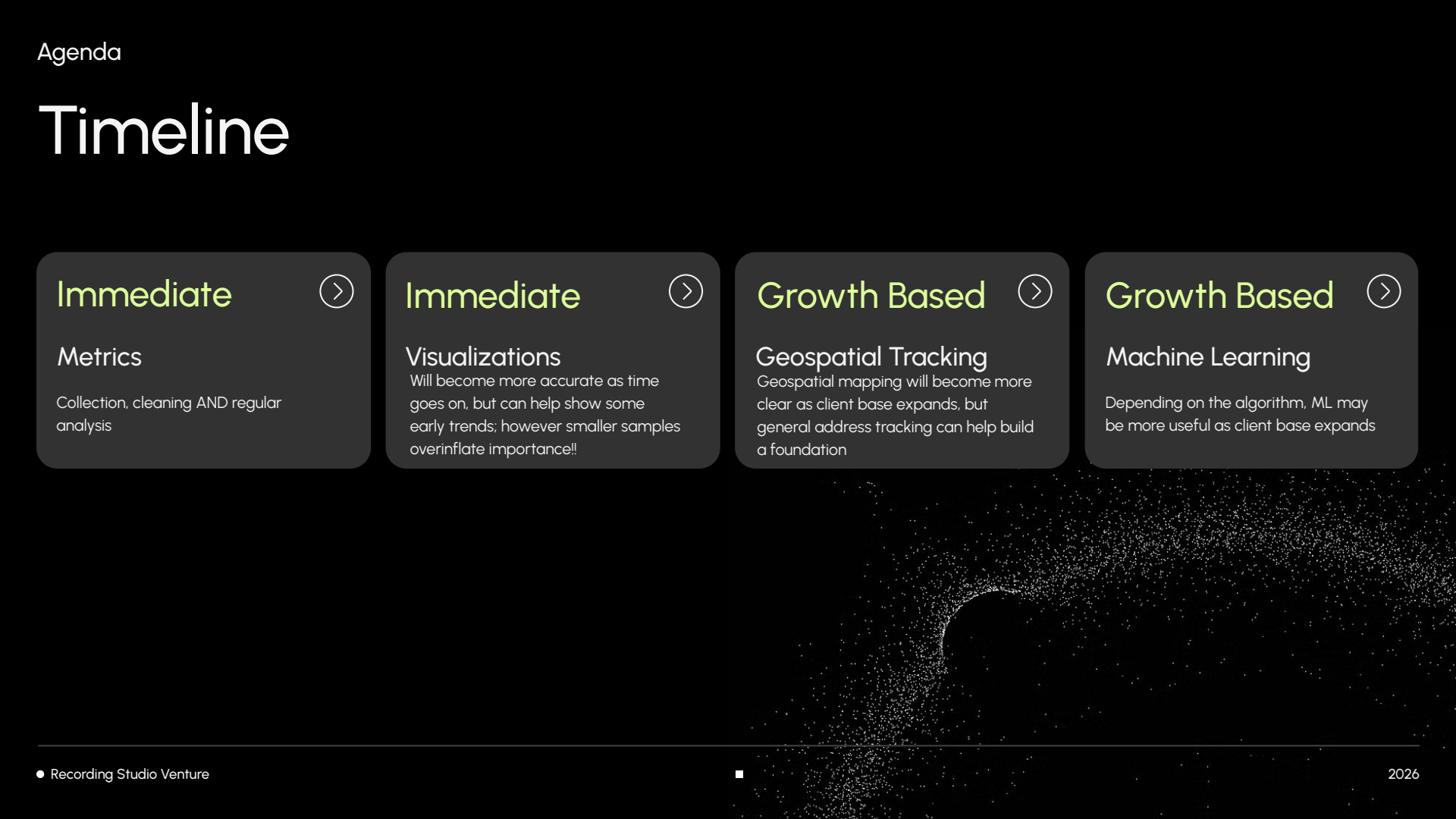
Geospatial Tracking

Geospatial mapping will become more clear as client base expands, but general address tracking can help build a foundation

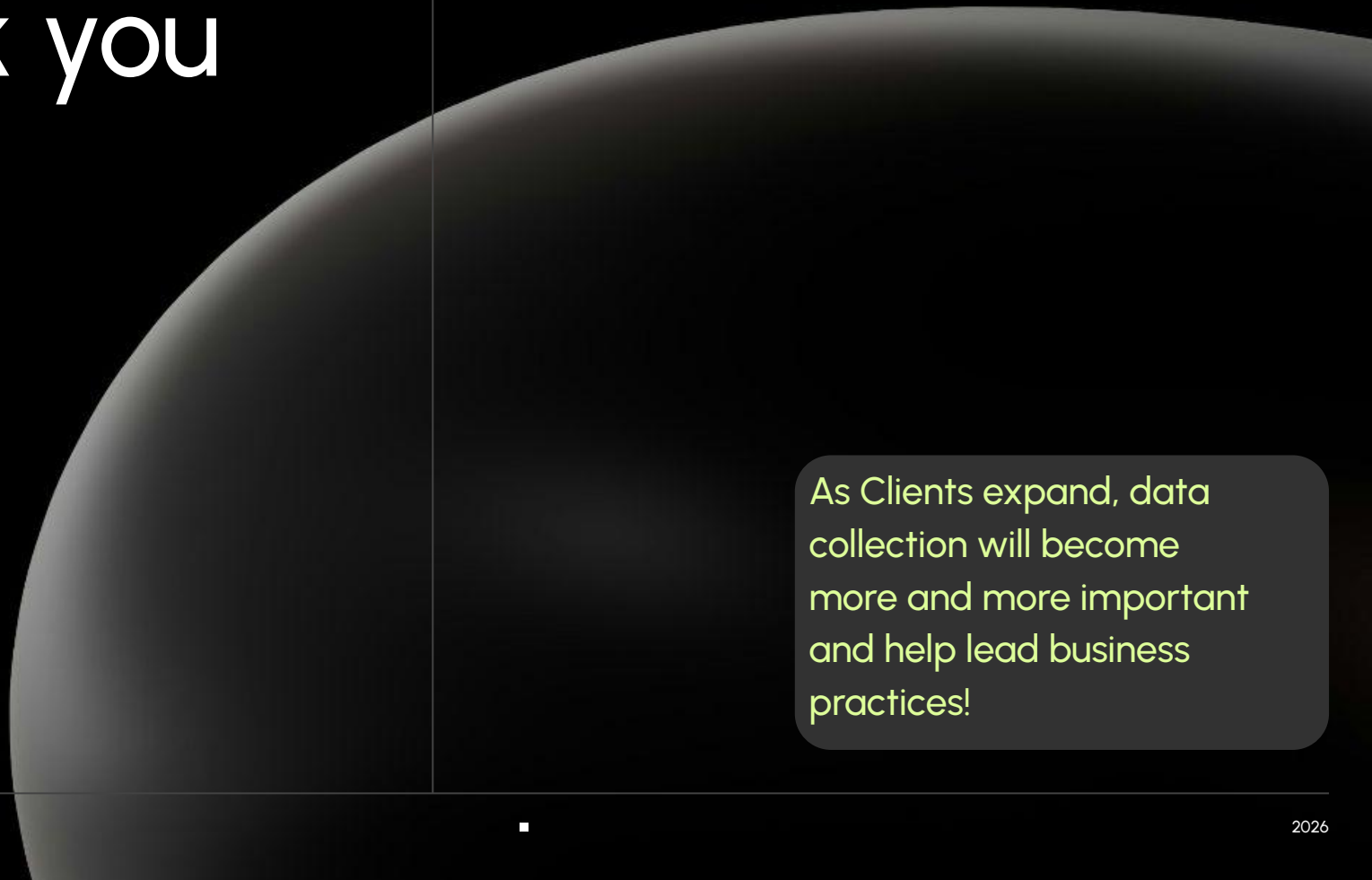
Growth Based

Machine Learning

Depending on the algorithm, ML may be more useful as client base expands



Thank you



As Clients expand, data collection will become more and more important and help lead business practices!