Data Collection

BadgeHolder Data:-

BadgeHolder Data:- This data was collected from EAS attestation which is given to all badgeholders of RPGF Round3.

Result:- BadgeHolder Data Result

BadgeHolder's EAS Attestation:- A Dune query was written to determine how many of the 132 BadgeHolder addresses have ENS (Ethereum Name Service) names associated with them. Out of the 132 BadgeHolder addresses, 102 addresses have ENS names associated with them.

Result:-BadgeHolder ENS Addresses

Non-BadgeHolder Data:-

The badgeholders' data was analyzed to find the answers to the following questions:

1. What is the average number of transactions performed by all addresses on the Optimism network?
2. What is the average number of transactions performed per month by all addresses on the Optimism network?
3. What is the average number of token transfers or swaps executed on decentralized exchanges (DEXs) hosted on Optimism by addresses?
4. What is the average approximate age of transactions on the Optimism network, calculated from the timestamp of their first transaction?
5. What is the average number of interactions that addresses have with different categories of applications (e.g., DEXs, perpetuals, NFT marketplaces) on the Optimism network?

The results from the badgeholders' analysis were then used to find the corresponding data for non-badgeholders on the Optimism network :

1. Addresses must have performed a minimum of 300 transactions on the Optimism network.
2. Addresses must have completed at least 8 transactions in a single month.
3. Addresses must have performed at least 15 token transfers or swaps on decentralized exchanges (DEXs) hosted on Optimism.

4. Addresses must have a minimum age of 15 months on the Optimism network, based on the timestamp of their first transaction.
5. Addresses must have interacted with at least 1 different category of applications (e.g., DEXs, perpetuals, NFT marketplaces) on the Optimism network.

These criteria define a subset of addresses on the Optimism network that meet specific thresholds in terms of transaction volume, consistency, interaction with decentralized exchanges, longevity, and breadth of interaction with different types of applications.This approach allows for a comparative analysis between badgeholders and non-badgeholders, providing insights into how these groups differ in their interactions and activities on the Optimism network.

Following are the steps we took to identify the non-BadgeHolder addresses:

1. **Identify ENS Names Among Badgeholders:**

   A Dune query was written to determine how many of the 132 BadgeHolder addresses have ENS (Ethereum Name Service) names associated with them.

   Result: Out of the 132 BadgeHolder addresses, 102 addresses have ENS names associated with them.

2. **Filter Non-BadgeHolder Group with ENS Names:**

   From the non-badgeholders' data, a group of 132 non-BadgeHolder addresses was filtered. This group includes exactly 102 addresses that have ENS names, matching the ENS name count of the BadgeHolder group.

3. **Filter Larger Non-BadgeHolder Group with ENS Names:**

   A larger group of 1320 non-BadgeHolder addresses was filtered. This group includes exactly 1020 (10x the number of BadgeHolder ENS addresses) addresses that have ENS names.

   Note: This group of 1320 non-BadgeHolder addresses does not include any addresses from the previously filtered group of 132 non-BadgeHolder addresses.

4. **Fix Non-BadgeHolder Addresses for Analysis:**

   The data for the selected non-BadgeHolder addresses was downloaded and uploaded to Dune as a table. This step ensures that the addresses remain fixed and do not change in any subsequent analyses.

This setup ensures that we have two distinct sets of non-badgeholders for comparative analysis, with one set closely matching the ENS characteristics of the BadgeHolder group and another larger set for broader analysis.

Fixed Non-BadgeHolder Addresses Data:

- Group 1 (132 non-BadgeHolder addresses):Query Link
- Group 2 (1320 non-BadgeHolder addresses):Query Link

Result:-

Non-BadgeHolder Group 1 (132 addresses):

- Detailed results (Query used to identify 132 addresses) can be found at the following link: Non-BadgeHolder Group 1 Results

Non-BadgeHolder Group 2 (1320 addresses):

- Detailed results (Query used to identify 1320 addresses) can be found at the following link: Non-BadgeHolder Group 2 Results

Sources (All Queries):-

BadgeHolder Data Queries:

- Query for average number of transactions performed by all addresses: Query Link
- Query for average number of transactions performed per month by all addresses: Query Link
- Query for average number of token transfers or swaps executed on DEXs by addresses: Query Link
- Query for average approximate age of transactions: Query Link
- Query for average number of interactions with different categories of applications: Query Link

Non-BadgeHolder Data Queries:

- Query that satisfies conditions for 300 transactions and 8 transactions in a month: Query Link
- Query that satisfies condition for 15 token transfers or swaps on DEXs: Query Link
- Query that satisfies condition for minimum age of 15 months: Query Link
- Query that satisfies condition for interaction with different categories of applications: Query Link
- Query that satisfies all conditions (1 to 5): Query Link

Transactions:

A Dune query was written to retrieve the transactions data of the badgeholders and the two groups of non-badgeholders across multiple chains, including:

Superchains: Optimism, Base, Zora, Mode
Other Chains: Arbitrum, Ethereum

BadgeHolder Transactions:

- BadgeHolder transactions on superchains (Optimism, Base, Mode, Zora): Query Link
- BadgeHolder transactions on other chains (Ethereum, Arbitrum): Query Link

Non-BadgeHolder Transactions:

- Non-BadgeHolder (132 addresses) transactions on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (132 addresses) transactions on other chains (Ethereum, Arbitrum): Query Link
- Non-BadgeHolder (1320 addresses) transactions on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (1320 addresses) transactions on other chains (Ethereum, Arbitrum): Query Link

DEX Trades:

A Dune query was written to retrieve the DEX trades data of both the badgeholders and the groups of non-badgeholders across multiple chains, including:

Superchains: Optimism, Base, Zora, Mode
Other Chains: Arbitrum, Ethereum

BadgeHolder DEX Trades:

- BadgeHolder DEX trades on superchains (Optimism, Base, Mode, Zora): Query Link
- BadgeHolder DEX trades on other chains (Ethereum, Arbitrum): Query Link

Non-BadgeHolder DEX Trades:

- Non-BadgeHolder (132 addresses) DEX trades on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (132 addresses) DEX trades on other chains (Ethereum, Arbitrum): Query Link
- Non-BadgeHolder (1320 addresses) DEX trades on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (1320 addresses) DEX trades on other chains (Ethereum, Arbitrum): Query Link

NFT Trades:

A Dune query was written to retrieve the NFT trades data of both the badgeholders and the groups of non-badgeholders across multiple chains, including:

Superchains: Optimism, Base, Zora, Mode
Other Chains: Arbitrum, Ethereum

BadgeHolder NFT Trades:

- BadgeHolder NFT trades on superchains (Optimism, Base, Mode, Zora): Query Link
- BadgeHolder NFT trades on other chains (Ethereum, Arbitrum): Query Link

Non-BadgeHolder NFT Trades:

- Non-BadgeHolder (132 addresses) NFT trades on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (132 addresses) NFT trades on other chains (Ethereum, Arbitrum): Query Link
- Non-BadgeHolder (1320 addresses) NFT trades on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (1320 addresses) NFT trades on other chains (Ethereum, Arbitrum): Query Link

Perpetual Trades:

A Dune query was written to retrieve the perpetual trades data of both the badgeholders and the groups of non-badgeholders across multiple chains, including:

Superchains: Optimism, Base, Zora, Mode
Other Chains: Arbitrum, Ethereum

BadgeHolder Perpetual Trades:

- BadgeHolder perpetual trades on superchains (Optimism, Base, Mode, Zora): Query Link
- BadgeHolder perpetual trades on other chains (Ethereum, Arbitrum): Query Link

Non-BadgeHolder Perpetual Trades:

- Non-BadgeHolder (132 addresses) perpetual trades on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (132 addresses) perpetual trades on other chains (Ethereum, Arbitrum): Query Link
- Non-BadgeHolder (1320 addresses) perpetual trades on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (1320 addresses) perpetual trades on other chains (Ethereum, Arbitrum): Query Link

Smart Contract Deployments:

A Dune query was written to retrieve the smart contract deployment data of both the badgeholders and the groups of non-badgeholders across multiple chains, including:

Superchains: Optimism, Base, Zora, Mode
Other Chains: Arbitrum, Ethereum

BadgeHolder Smart Contract Deployments:

- BadgeHolder smart contract deployments on superchains (Optimism, Base, Mode, Zora): Query Link
- BadgeHolder smart contract deployments on other chains (Ethereum, Arbitrum): Query Link

Non-BadgeHolder Smart Contract Deployments:

- Non-BadgeHolder (132 addresses) smart contract deployments on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (132 addresses) smart contract deployments on other chains (Ethereum, Arbitrum): Query Link
- Non-BadgeHolder (1320 addresses) smart contract deployments on superchains (Optimism, Base, Mode, Zora): Query Link
- Non-BadgeHolder (1320 addresses) smart contract deployments on other chains (Ethereum, Arbitrum): Query Link

Farcaster Cast and Reaction Data:

A Dune query was written to retrieve the Farcaster cast (post) and reaction (like or any other interaction) data of both the Badgeholders and the groups of non-Badgeholders across multiple chains:

Custody Address:

- Farcaster Badgeholder custody addresses: Query Link

BadgeHolder Farcaster Data:

- BadgeHolder Farcaster cast (post) data: Query Link
- BadgeHolder Farcaster reaction (like or any interaction) data: Query Link

Non-BadgeHolder Farcaster Data:

- Non-BadgeHolder (132 addresses) Farcaster cast (post) data: Query Link
- Non-BadgeHolder (132 addresses) Farcaster reaction (like or any interaction) data: Query Link
- Non-BadgeHolder (1320 addresses) Farcaster cast (post) data: Query Link
- Non-BadgeHolder (1320 addresses) Farcaster reaction (like or any interaction) data: Query Link

Farcaster Verification Data:

A Dune query was written to identify Badgeholders who have been verified by other addresses:

Badgeholder Farcaster Verification Data:

- Badgeholder Farcaster verified data: Query Link

LensHub Activity:

A Dune query was written to retrieve the LensHub activity data of both the Badgeholders and the groups of non-Badgeholders, focusing on casts (posts) and comments.

BadgeHolder LensHub Data:

- BadgeHolder LensHub cast (post) data: Query Link
- BadgeHolder LensHub comment data: Query Link

Non-BadgeHolder LensHub Data:

- Non-BadgeHolder (132 addresses) LensHub cast (post) data: Query Link
- Non-BadgeHolder (132 addresses) LensHub reaction (like or any interaction) data: Query Link
- Non-BadgeHolder (1320 addresses) LensHub cast (post) data: Query Link
- Non-BadgeHolder (1320 addresses) LensHub reaction (like or any interaction) data: Query Link

Data Analysis

- **Activity Duration:** Compare how long Badgeholders have been active on Superchain chains versus non-Badgeholders.

  1.1. What is the average age of BadgeHolder accounts on Superchain chains compared to non-Badgeholders?
  Visualization: Bar Chart - "Average Account Age: Badgeholders vs Non-Badgeholders"

  1.2. How has the number of active Badgeholders and non-Badgeholders on Superchain chains changed over time? -
  Visualization: Bar Chart - "Number of Active Accounts Over Time: Badgeholders vs Non-Badgeholders"

  1.3. How does the distribution of account ages differ between Badgeholders and non-Badgeholders on Superchain chains? -
  Visualization: Line Chart - "Distribution of Account Ages: Badgeholders vs Non-Badgeholders"

  1.4. What proportion of Badgeholders and non-Badgeholders have been active on Superchain chains for more than 6 months, 1 year, and 2 years? -

  1.5. How many Badgeholders and non-Badgeholders are still active on Superchain chains as of the most recent data available? -
  Visualization: Bar Chart - "Currently Active Accounts: Badgeholders vs Non-Badgeholders"

- **Cross-Chain Activity:** Analyze Badgeholders' activity on Superchain chains relative to other chains and compare with non-Badgeholders.

  2.1. What is the average number of transactions performed by Badgeholders and non-Badgeholders on Superchain chains compared to other chains? -
  Visualization: Bar Chart - "Average Number of Transactions: Superchain vs Other Chains"

  2.2. How does the distribution of transaction counts across different chains vary between Badgeholders and non-Badgeholders? -

Visualization: Bar Chart - "Distribution of Transaction Counts Across Chains" and Pie Chart- “Badgeholders Transaction Counts Across All Chains in Percentage ”

2.3. What is the proportion of total transactions performed by Badgeholders and non-Badgeholders on Superchain chains compared to other chains? -
Visualization: Pie Chart - "Proportion of Transactions: Superchain vs Other Chains"

2.4. How has the number of transactions performed by Badgeholders and non-Badgeholders on Superchain chains and other chains changed over time? -
Visualization: Line Chart - "Number of Transactions Over Time: Superchain vs Other Chains”

- **Activity Levels:** Determine the percentiles of activity for Badgeholders compared to other active Superchain chain users.

3.1. What are the 10th, 25th, 50th, 75th,90th and 100th percentiles of transaction counts for Badgeholders and non-Badgeholders on Superchain chains? -
Visualization: Counter - "Badgeholder Average Transaction Count"

- **Activity Distribution:** Assess BadgeHolder activity across categories such as Social, NFTs, DeFi, DAO governance, and others, and compare with non-Badgeholders.

4.1. What is the average number of transactions performed by Badgeholders and non-Badgeholders in each activity category on Superchain chains? -
Visualization: Bar Chart - "Average Number of Transactions by Activity Category"

4.2. What proportion of total transactions performed by Badgeholders and non-Badgeholders on Superchain chains falls into each activity category? -
Visualization: Pie Chart - "Proportion of Transactions by Activity Category"

- **Application Usage:** Identify the applications used by Badgeholders, such as DEXs and social apps.

5.1. What are the top 10 DEX and NFT used by Badgeholders on Superchain chains based on transaction counts? -
Visualization: Bar Chart - "Top 10 DEX and NFT Used by Badgeholders"

5.2. How has the usage of different applications by Badgeholders on Superchain chains changed over time? -
Visualization: Line Chart - "Application Usage by Badgeholders Over Time"

- **Farcaster Verification:** Determine the percentage of Badgeholders who have connected their Ethereum address to a Farcaster account and analyze their activity across all connected addresses.

6.1. What percentage of Badgeholders have connected their Ethereum address to a Farcaster account? -
Visualization: Counter - "Percentage of Badgeholders with Farcaster Verification"

6.2. How does the activity level of Badgeholders with Farcaster verification compare to those without verification on Superchain chains? -
Visualization: Pie Chart - "Activity Level: Badgeholders with Farcaster vs Without Farcaster"

6.3. Is there a correlation between the number of addresses connected to a Farcaster account and the activity level of Badgeholders on Superchain chains? -

- **Smart Contract Deployment:** Find out the percentage of Badgeholders who have deployed smart contracts to Optimism from their Ethereum accounts.

7.1. What percentage of Badgeholders have deployed smart contracts to Superchain from their Ethereum accounts? -
Visualization: Pie Chart - "Proportion of Badgeholders Deploying Smart Contracts"

- **Temporal Differences:** Investigate any meaningful differences between Badgeholders who became Badgeholders in earlier rounds versus later rounds. This could include variations in activity levels, category engagement, or application usage.

8.1. How do the activity levels of Badgeholders from earlier rounds compare to those from later rounds on Superchain chains? -
Visualization: Bar Chart - "Activity Level: Earlier Round Badgeholders vs Later Round Badgeholders"

8.2. Are there any significant differences in category engagement between Badgeholders from earlier rounds and later rounds on Superchain chains? -
Visualization: Bar Chart - "Category Engagement: Earlier Round Badgeholders vs Later Round Badgeholders"