The New Strategy Game Proposal

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Marsya Mahfis
Data Analytics Plan
For Game Company
Final Project
Chapter 6

Digital Analytics

Digital analytics is one of the methods of data collection. It is the process of analysing digital data from myriad sources like websites, and mobile applications. It gives a company a clear picture of how the customers are behaving by tracking their every action online. Through digital analytics, companies obtain insights into the areas that need improvement and are able to make well-informed decisions to increase business operations.

Goals

Since our main goal in launching the new strategy game is to build a stable foundation of streaming players and boost in-app purchases, digital analytics will be able to provide our company with information on how to better the players' experience as well as potential customers.

There are some ways how digital analytics can be leveraged to achieve these goals for the new strategy game:

1. Understanding purchases and where the issues that are holding potential customers back from completing sales.
2. Reporting, budgeting, and justifying staffing changes.
3. Informing unsuccessful digital marketing campaigns.
4. Broadcasting overwhelmingly high bounce rate when the conversion rate begins to drop.

Specifications

Digital analytics is a tool for collecting, measuring, and analyzing qualitative and quantitative data. The data will guide our company to improve the strategy game experience using data-driven metrics to generate leads and convert them into players.

Here is what we can learn from the data obtained in digital analytics:

1. App traffic - Shows what campaigns work and which ones do not.

2. Source of traffic - Where do our visitors come from?

3. New vs returning visitors - Shows our relevance and piece performance.

4. Sessions – Number of visits our game gets.

5. Average length of the session – Knowing how long a visitor spends on our game helps understand navigation and ease of use.

6. Pages with most visits – Helps show behavior flow.

7. Exit Rate – Shows when and where a visitor left our game to identify where a loss of interest may occur.

8. Bounce rate – Percentage of people who leave after only one page. This can show where issues on the page lie, such as slow loading or broken links.

9. Conversion rate – Shows how many visitors turn into sales.

Google Analytics 4

The deliverable tool to be used in the plan of the new strategy game data collection will be Google Analytics 4 (GA4) as a major part of executing the main goal. The platform is free and enables measurement of traffic and engagement across websites and apps. Google Analytics 4 will be more than able to provide our new game with these key benefits:

I. Audience

An audience might be simply current users or potential customers. Audiences in GA4 can be grouped and studied together based on any combination of attributes that is meaningful to our game.

Once the targetted audience is defined, GA4 can be used to focus on those users and explore that data to see whether patterns emerge. For example:-

- Do users from particular geographic areas make in-app purchases more often?

- Are players equally distributed across age and gender?

- Which level of the game do our users spend the most money on?

II.   Event

An event is a measurement of a distinct user's every interaction on the game, such as clicking a link and completing a purchase. Event tracking is crucial to help optimize the app for conversion. In GA4, events can be split into four categories which are:

1) Automatically collected events
2) Enhanced measurement events
3) Recommended events
4) Custom events

Event count can be utilised to observe the occurrence of an event. Once GA4 has processed the events, data can be viewed in the Events report under the Engagement topic and in Configure.

In the initial stage, it is important to understand what is driving users to convert into payers. Some of the events that would be useful to track are as below:

1) Tutorial completion
2) Completed views per video ad
3) Min, max, and median rounds to complete
4) First tool purchase
5) Traffic source

III.   Conversion

In Google Analytics, the completion of an activity that is important to the success of a business means a conversion. For example, a newsletter subscription, a purchase, or a download of a file. By tracking conversions, we can determine what is working for the company and what is not. This also leads us to allocate the advertising budget more effectively by measuring the success of marketing efforts. In our case, some of the conversions that are aligned with our measure of success for the new strategy game would be:

1) Purchase of additional tools to help players complete the levels
2) Growth of new visitors into streaming players
3) App download

IV. Reports

A helpful feature of GA4 would be Google Analytics Report, which is a one-stop tool that tracks and displays multiple Google Analytics metrics. Analytics report equips businesses with valuable information about customers' behavior habits and their marketing strategy's performance.

Realtime Reports

One of particular interest is the Realtime Reports. It displays traffic sources, the most popular events, and the number of users in the last 30 minutes. In other words, this report allows us to monitor activity in the game as it happens, providing insights into how players are currently reacting to the marketing campaigns and game infrastructure.

Tech Reports

The Tech Reports display traffic according to the technologies our players use. This information is automatically collected once our game is linked to GA4. From this report, we can optimise existing versions of the game and prepare for new implementations by understanding the technologies our players use to access and consume our content.

Games Reports

Our company could benefit from this report the most as it provides game-specific metrics that can help measure customer behavior across the user funnel and develop metric-driven insights about our mobile gaming apps. In this report, summary cards are present to link to their respective user acquisition, retention, engagement, and monetization reports for deeper analysis. These reports are designed to reflect the player funnel and offer an industry-standard set of dimensions and metrics. These will help the company to understand how to bring in new players, keep them coming back, and how well the company generates income.

V.   Others

In Google Analytics 4, explorations are another useful feature consisting of powerful audience comparison and discovery tools. It helps uncover deeper insights about customers' behavior by visualising analysis in a dashboard and providing advanced techniques that can go beyond standard reports. In other words, we have access to data and analytical methods through explorations that are not available in reports. Some of the benefits explorations can be of help are:

1) Optimise the most relevant data by applying filters and segments.
2) Create audiences and segments.
3) Share explorations with other Google Analytics users of the same property.
4) Immediately perform ad hoc queries.
5) Transfer the exploration data for use in other tools.

Explorations in Google Analytics 4 visualises data analysis on a canvas that provides multiple tabs and techniques in a single exploration. The techniques that would be handy in the new strategy game include:

Free-form Exploration

This technique is highly versatile and flexible for any analysis. It allows visualisation of data in a form of a table and a graph, sorts and arranges the rows and columns of the table according to preferences, compares different metrics side by side, creates nested rows to categorise data, and utilises segments and filters to improve the free-form exploring.
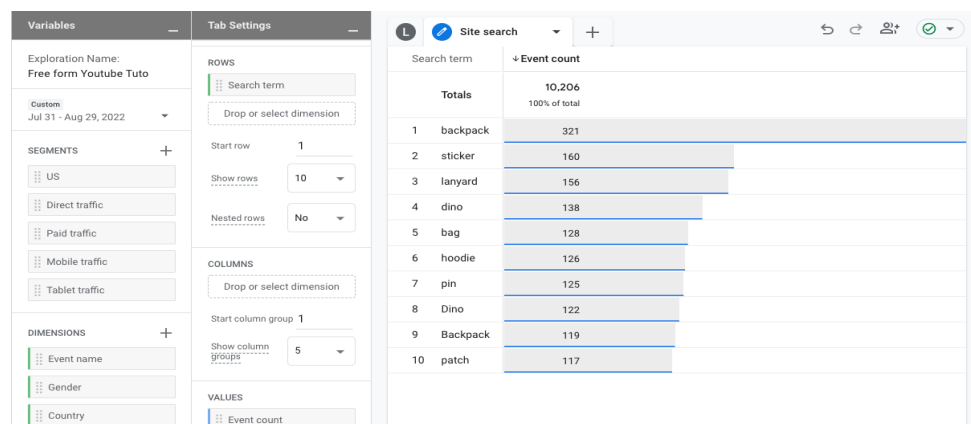
Funnel Exploration

Funnel exploration shows the steps customers take to complete a task on our app, and measures the success rate of each step. This technique can be useful to improve user experience and locate audiences that are doing well or poorly. Users are only counted when they finish the tasks in the ordered steps. The user will exit the funnel and not be included in any following stages if they skip a step.
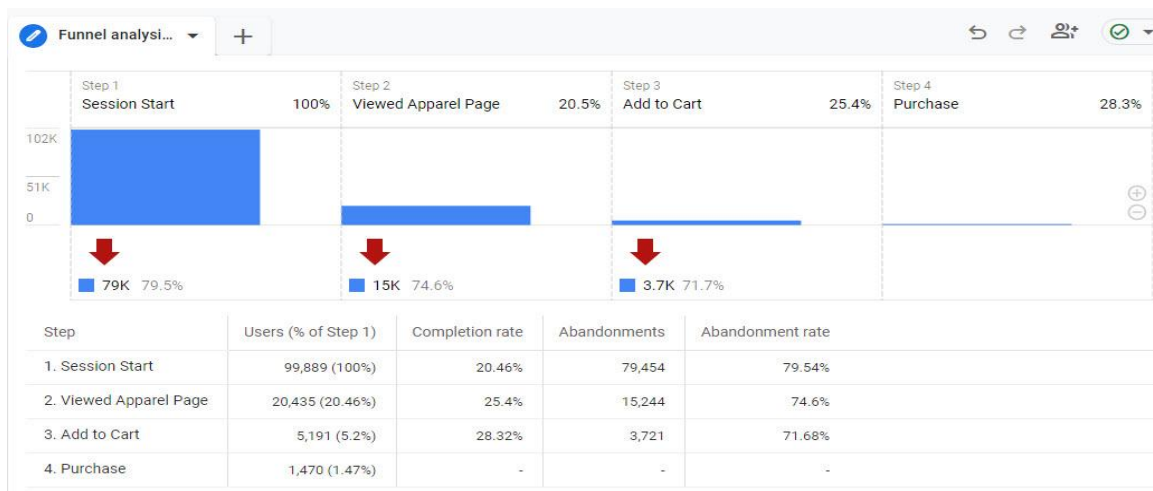
Path Exploration

Path exploration envisions the routes that users travel when browsing through our website and app. It provides discovery for the most visited pages by new visitors once they click on the main page, what consumers do following an app exception, repeating activity that could suggest trapped users, and how a situation affects a user's following behaviours.
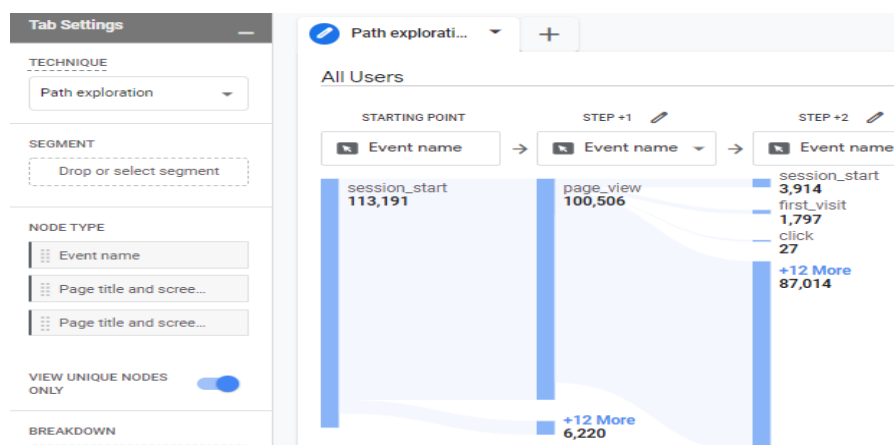
Cohort Exploration

This technique gathers insights from the actions and output of audiences connected by shared attributes. Cohort exploration allows our company to see how these groups behave over time in the game. Cohort analysis divides cohorts into granularities of daily, weekly, or monthly.

Each cell is the sum of **Active users** for users who had **Any event**, in that week after **First touch** (acquisition date) — Base

	WEEK 0	WEEK 1	WEEK 2	WEEK 3
All Users Active users	65,033	2,401	859	372
Jul 31 - Aug 6, 2022 17,552 users	17,552	749	359	286
Aug 7 - Aug 13, 2022 16,270 users	16,270	671	395	86
Aug 14 - Aug 20, 2022 13,779 users	13,779	663	105	
Aug 21 - Aug 27, 2022 14,564 users	14,564	319		
Aug 28 - Aug 29, 2022 3,544 users	3,544			

Data Collection Plan

Since the company is launching a brand new strategy game that is built into a mobile app, the data collection aims to study the key factors that convert new visitors to streaming players and influence the increase in in-app purchases.

In order to further define the problem, these questions are made as guidance to the data collection workflow:

I. Can we contribute 10% increased conversion via ads to meet our player base growth expectation?

II. What events have influenced the retention of 20% of the returning users to the app?

III. At what level of the game do active players complete purchases the highest for half of the year?

IV. What is causing an almost 100% abandonment rate among mobile device users from completing their purchases for the last three months?

I. Timeline

General planning of activities and timing are reported below.

New Strategy Game Timeline

II. Data Types, Source, and Tools

Overall layout of the data types, sources, and tools that will be used in the data collection process.
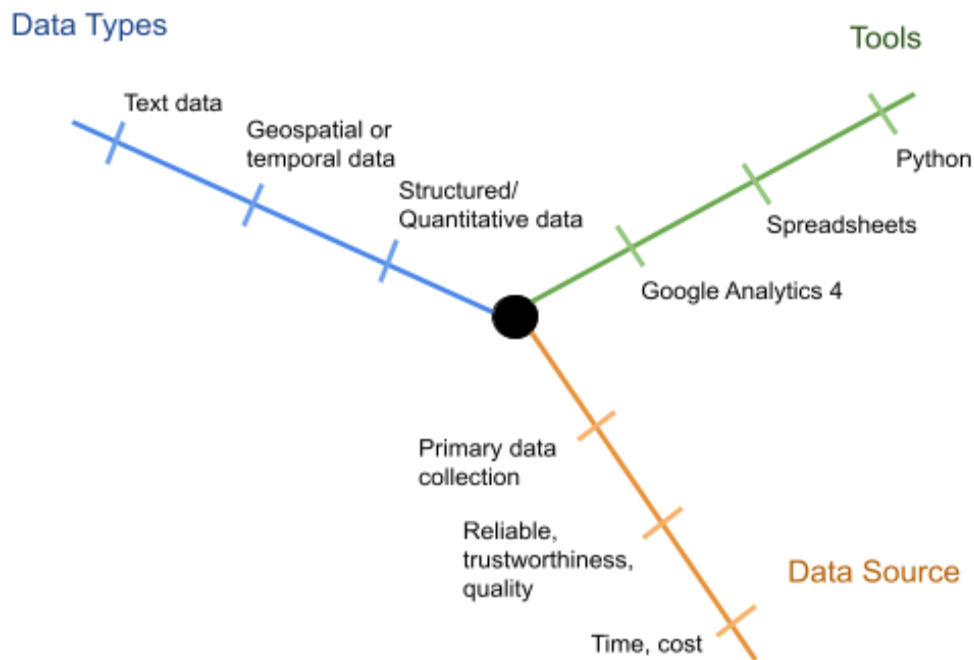
III. Bias and Privacy and Storage

Data Bias

Data biases need to be taken into account since they influence decisions and their outcomes. We shall take a look at possible biases in the process and take a number of measures to avoid prejudice when analysing the data.

1. Selection bias - It is important to avoid sampling bias, particularly when the gaming industry is generally populated by male gamers. Recent surveys show that female players are steadily increasing over time that the gender ratio has become closer to equal. Underrepresentation of the minority could reduce the attractiveness of our game.

2. Survivorship bias - In a competitive strategic competition, it is easy to overlook the runner-ups and just focus on the winners' achievements, making it difficult to distinguish between correlation and causation. In data collection, it is important to have a fair view of both sides and consider the factors of both successful and unsuccessful players in order to improve the game.

3. Outlier bias - Average figures can hide the effects of outliers and anomalies which can skew observations and analysis. For example, consistent average latency values could be a sign of declined engagement on important pages. In this case, it is important to look at the entire range of distribution, use median instead of average, and dig deeper into those outliers.

Data Privacy

While Google Analytics 4 can provide in-depth information about our users' behaviour, it is their right to be made aware and given the choice to consent or object the data being stored. Thus, good practices need to be applied to ensure effective data protection for our users.

1. Stipulate policies - Policies should clearly outline how information is collected and acted upon. Furthermore, the protections needed for various levels of data privacy should be stated as well as the processes for auditing protection.
2. Minimise data collection - Collect only necessary data to decrease liability, save bandwidth and storage, and reduce burden on the security team.
3. Be open to users - Users are likely to appreciate transparency on how the data are being used and stored. Some of the ways to integrate user transparency is by designing privacy concerns in our interfaces and notify when data is collected and why.

Data Storage

For determining a data storage solution, several factors need to be considered to fulfill the requirement. In this new mobile app, cloud solutions will be employed as suitable data storage due to the following reasons:

General consideration	Mobile app requirement/relevance	How cloud solutions will benefit
Data size	Big data	• All the changes to the data will reflect on every device which is synced with that storage service.
Data relationships	Many-to-many	
Reliability	Good server crash tolerance, backup, and recovery capabilities are required.	• The best platform for data loss recovery • Backup can be retrieved from the cloud in the event of data loss.
Performance and scalability	Eventual consistency.	• The service plan can be upgraded if existing storage plan is insufficient. • Data do not need to be moved from one location to another.
Portability	Needs to be able to migrate to other cloud hosting environments.	• Do not need any hard disk or flash drives to access or view data. • Need a good internet connection to have access to all of your files.

Custom Audience, Event, and Conversion Configurations

I. Audience

Streaming players is a custom audience that tracks players who are active and have high engagement rate in the game such as active transaction, high stickiness rate and long session length.

II. Event

Custom event for the new strategy game is named as level_complete_quickplay. The parameters are success equals to new_level_unlocked and score equals to 100. This event identifies every time a level is completed and a player moves on to the next level.

III.   Conversion

The custom conversion for our new mobile game app is named as tutorial_complete, which shows when a player completes the tutorial and starts engaging with the main gaming platform.

Conversion name ↑	Count	% change	Value	% change	Mark as conversion ⑦
Conversion Events Network Settings					⬇ New conversion event
purchase	0	0%	0	0%	⬜
tutorial_complete	0	0%	0	0%	🔵