

# **Business Analytics Capstone Framework for Strategy**

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# Problem Statement

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## Describe the Problem Adblockers present to GYF

- **Decreased Ad Visibility:** Adblocking software can significantly decrease the visibility of ads, which can negatively impact GYF's ad-buying customers. This can lead to a decrease in click-through rates and conversions, which can ultimately result in lower revenue for GYF's customers.
- **Increased Ad Costs:** Adblocking software can increase the cost of advertising for GYF's ad-buying customers. This is because ad-blocking software can decrease the effectiveness of ads, which can lead to a decrease in click-through rates and conversions. As a result, GYF's customers may need to spend more money on advertising to achieve the same results.
- **Decreased User Engagement:** Adblocking software can decrease user engagement with ads, which can negatively impact GYF's ad-buying customers. This can lead to a decrease in brand awareness and customer loyalty, which can ultimately result in lower revenue for GYF's customers.

# Problem Statement

## *Application Exercise 1 – Research Methods and Tools (Optional)*

- GYF can employ **exploratory research** to identify the most effective ways to deal with ad-blocking software. Exploratory research is useful when the problem is not well-defined and the goal is to gain a better understanding of the problem. By conducting exploratory research, GYF can identify the most important factors that contribute to ad-blocking and develop hypotheses about how to address these factors.
- To conduct this research, GYF can use a variety of tools, including **focus groups, internet communities (MROCs), and customer self-reporting**. Focus groups are useful for gathering qualitative data on user attitudes and behaviors. Internet communities (MROCs) are online communities that can be used to gather feedback from users in a more natural setting. Customer self-reporting involves asking customers to provide feedback on their experiences with ad-blocking software.

# Strategy

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## Describe your proposed strategy

- **Native Advertising:** Native advertising is a form of advertising that blends in with the content of the website. By using native advertising, GYF can create ads that are less intrusive and more likely to be seen by users.
- **Mobile App Ads:** GYF can shift some of its media to mobile app ads. Mobile app ads are less likely to be blocked by ad-blockers and can be more effective in reaching users.
- **Anti-Ad-Blocking Scripts:** GYF can use anti-ad-blocking scripts to bypass ad-blockers. These scripts can detect when a user is using an ad-blocker and can prevent the ad-blocker from blocking ads.
- **Targeted Ads:** GYF can use data-driven analysis to create more targeted ads that are less likely to be blocked. By analyzing user data, GYF can identify the types of ads that users are more likely to engage with and the types of ads that are more likely to be blocked.
- **Content Marketing:** GYF can shift its focus to content marketing and earned media. By creating high-quality content that users want to engage with, GYF can reduce its reliance on traditional advertising.
- **Ad-Block Proof Ads:** GYF can work with publishers to place “ad-block proof” ads server-side. These ads are less likely to be blocked by ad-blockers and can be more effective in reaching users.
- **Ethical Advertising:** GYF can focus on being an ethical advertiser. By creating content that users would enjoy receiving and sticking to major platforms that follow that mentality, GYF can reduce the negative impact of ad-blocking software.

# Strategy

## *Application Exercise 2 – Hiring a Team Leader (Optional)*

- I would recommend hiring **Peggy Prospect** as the Senior Associate Director for Digital Advertising Strategy. Although Peggy's work samples were less dynamic than Carrie's, Peggy demonstrated a deep knowledge of the digital advertising landscape and a strong familiarity with the kinds of tasks she would be assigned in her new position. Additionally, Peggy scored highly on her personality test, indicating that she is detail-oriented, open-minded, and able to work as part of a team.
- While one of Peggy's references mentioned that she could be "too focused on the short term rather than the long term," this is a relatively minor issue that can be addressed through coaching and mentoring. Overall, Peggy appears to be a strong candidate for the position and is well-suited to help GYF develop and implement its strategy for addressing the problem of adblocking.
- I would recommend incorporating Peggy's hiring into the Strategy slides by highlighting her strengths and qualifications, as well as the potential challenges associated with her focus on the short term. By acknowledging these challenges up front, the DATA Team can work proactively to address them and ensure that Peggy is set up for success in her new role.

# Effects and Measurement



# Effects

## Describe the anticipated effects of your strategy

- By using **native advertising**, GYF can create ads that are less intrusive and more likely to be seen by users. This can lead to increased user engagement with ads, which can ultimately result in higher revenue for GYF's customers. Additionally, by using mobile app ads, GYF can reach users who are less likely to use ad-blocking software, which can further increase revenue.
- **Anti-ad-blocking scripts** can prevent ad-blockers from blocking ads, which can increase the visibility of ads and lead to higher click-through rates and conversions. Targeted ads can create more effective and personalized ads that are less likely to be blocked, which can lead to higher user engagement with ads and higher revenue for GYF's customers.
- **Content marketing** can reduce GYF's reliance on traditional advertising and create a more engaging user experience. This can lead to increased user engagement with GYF's content and higher revenue for GYF's customers. Ad-block proof ads can be more effective in reaching users and can lead to higher click-through rates and conversions.

# Effects

## ***Application Exercise 3 – Designing a Deterministic Optimization Model***

Let's assume that we allocate  $x_1$  dollars to Hard Skills/External,  $x_2$  dollars to Hard Skills/Internal,  $x_3$  dollars to Soft Skills/External, and  $x_4$  dollars to Soft Skills/Internal. Then, the total net productivity increase can be expressed as:

- $0.7x_1 + 0.2x_2 + 0.4x_3 + 0.6x_4$

We want to **maximize** this expression subject to the following constraints:

- $x_1 + x_2 + x_3 + x_4 \leq 65,000$
- $0.2x_2 + 0.6x_4 \geq 20,000$
- $0.6x_2 + 0.4x_4 \geq 12,000$
- $0.6(0.7x_1 + 0.2x_2) \leq 0.4(0.7x_1 + 0.2x_2) + 0.6(0.4x_3 + 0.6x_4)$

The **optimal allocation** of the budget is:

- $x_1 = \$0$
- $x_2 = \$20,000$
- $x_3 = \$45,000$
- $x_4 = \$0$

# Measurement

**Describe the anticipated effects of your strategy and how you will measure them**

- To measure the effectiveness of **native advertising**, GYF can track the click-through rates and conversions of native ads compared to traditional ads. To measure the effectiveness of mobile app ads, GYF can track the click-through rates and conversions of mobile app ads compared to traditional ads.
- To measure the effectiveness of **anti-ad-blocking scripts**, GYF can track the number of users who are using ad-blocking software and the number of ads that are being blocked. To measure the effectiveness of targeted ads, GYF can track the click-through rates and conversions of targeted ads compared to non-targeted ads.
- To measure the effectiveness of **content marketing**, GYF can track the engagement rates of its content and the number of users who are sharing its content. To measure the effectiveness of ad-block proof ads, GYF can track the click-through rates and conversions of ad-block proof ads compared to traditional ads.

# Measurement

## *Application Exercise 4 – Identifying Key Drivers*

- One **hypothesis** that is explicitly linked to the strategy of using data-driven analysis to construct a strategy that GYF (and companies like it) could employ to deal with the threat posed by ad-blocking software is that more targeted and personalized ads are less likely to be blocked by ad-blockers. This hypothesis is based on the assumption that users are more likely to engage with ads that are relevant to their interests and preferences.
- One key driver that can be used to measure the effectiveness of this strategy is the **click-through rate (CTR)** of targeted ads compared to non-targeted ads. By analyzing the CTR of targeted ads, GYF can determine whether these ads are more effective in engaging users and driving conversions. Additionally, GYF can use data-driven analysis to identify the most effective ad formats and placements.
- To **verify the linkage** between the hypothesis and the key driver, GYF can conduct A/B testing to compare the effectiveness of targeted ads to non-targeted ads. By testing different versions of ads and measuring the results, GYF can identify the most effective ad formats and placements. Additionally, GYF can use data-driven analysis to identify the types of ads that users are more likely to engage with and the types of ads that are more likely to be blocked. By analyzing this data, GYF can create more targeted and personalized ads that are less likely to be blocked by ad-blockers.

# Conclusion

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- The project involved developing a strategy to deal with the threat posed by ad-blocking software for GoYaFace, Inc. (GYF), a large digital search engine, email/messaging, and internet content company.
- The strategy involved using data-driven analysis to create more effective and targeted ads that are less likely to be blocked by ad-blockers. The strategy also involved developing more effective ad-blocking countermeasures and focusing on content marketing and earned media.
- The project involved identifying the implications of ad-blocking on GYF's ad-buying customers and exploring the allocation of scarce resources in pursuing the strategy.
- The project involved measuring the key drivers of the proposed strategy using accounting analytics methods and verifying the linkage between the hypothesis and the key driver using A/B testing.
- The project involved using optimization models to allocate resources effectively and using synthetic data to simulate user behavior and track the effectiveness of different advertising strategies.