

THE GROWTH PLAYBOOK 2018

Featuring Expert Advice & Insider Perspectives From



A TACTICAL GUIDE TO GROWTH MARKETING

Learn how Dropbox, Stitch Fix, & LinkedIn drove billions in revenue.

THE GROWTH PLAYBOOK

Brought to you by
[ClearBrain](#)

Compiled by [Diana Arteaga](#). Designed by [Knurture](#).

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P R E F A C E

Building A Growth Marketing Culture

Steve Ebin

VP of Growth Marketing at InVision

Imagine you have an unlimited budget to get more purchases, subscriptions, votes, or whatever. Now imagine the year is 1970. What do you do? If you're most marketers of the time, you spend money on radio ads, mailers, and maybe billboards.

But if you're a great marketer of the time, you might rotate the callback numbers in the radio ads, vary the sizes of the mailers you send, and get feedback on your billboards. Even 50 years ago, great marketers hypothesized about what might work, experimented to see if it did work, and iterated based on results. These were the early begins of growth marketing.

But what is “*growth marketing*”? Growth marketing, as we will explore in this playbook, is about creating true, sustainable growth through a variety of techniques. It's about crafting unforgettable user experiences, writing emails worth opening, but most importantly, it's about applying the scientific mindset to economic problems.

The Growth Mindset as the Scientific Method

The characteristics that make great scientists – curiosity, observation, creativity, a willingness to be wrong, and a desire to learn – are also what make great growth marketers.

The growth marketers from the 1970s pioneered A/B testing (*on mailers*), focus groups (*for ads*), and behavioral tracking (*for phone calls*). They took the tools available to them, tapped into their natural curiosities and explored the possibilities – taking the chance, even when they were unsure. They trusted in the power of experimentation for growth. As much as we may look at their methods as primitive, I can only imagine what marketers 50 years from now will think of our innovations. These past marketers set a precedent.

The very first step towards developing a science-powered growth mindset is being honest with yourself about your state of affairs. How is the business, or non-profit, or political campaign, doing? How do you measure that? And where can you improve? It is possible to fool yourself and be successful, but it's a lot easier if you take a sober, scientific approach to assessing your situation.

With this playbook, we hope to equip you with the necessary tools and knowledge to begin and/or continue your journey into growth marketing.

A Tactical Growth Playbook

This playbook is made up of five central chapters: segmentation, acquisition, product, testing and measurement and analysis.

Our goal is to give you actionable insights into cultivating a growth mindset. As such, each article is written so that you can get started right now.

Just like in the scientific method, the key is to take action – to try, to fail, to learn and eventually prevail.

The best growth marketers have epic stories of failure, and embrace those learnings to further optimize their operations. Let's dive deeper into what each section focuses on.

Segmentation

Segmentation is the process of finding the right audience and it's critical in growth marketing. Segmenting helps you answer questions like *"which leads should I qualify"* or *"which visitors should I expect to do x"* or *"who is most likely to churn?"*. Predictive marketing tools like [Clearbrain](#), MadKudu and Infer fit here. Event-based analytics tools like Heap, Amplitude, and Mixpanel, also fit here, as do tools like Google Analytics, Adobe Analytics, and so on. This is where you'll learn to define the *"who."*

Acquisition

You can target people with banner ads, search ads, emails, website personalization, chat, direct mail, events, SMS, billboards, telephone calls, and so on. If you have the segmentation correct,

and are targeting the right people, then, provided that your offer is compelling, it is possible to succeed on any of these channels. In this chapter, we'll learn how to acquire the right customers and keep them interested.

Product

No growth strategy can substitute a good product. However, all products can grow faster with a good growth strategy. Whether you have a SaaS product, ecommerce store, or a retail shop, the first impression matters the most. In this chapter, we'll explore how to better understand your users so you can engage them using the right in product experiences and messages. And for those employing the freemium business model, we'll explore how – and when – to best monetize your users in order to attract a customer for life.

Testing

In growth marketing, optimization is one of our main goals. But we can't optimize our business just by following our guts. Customers change, and we need to keep up with their evolving needs. We achieve this through testing and experimentation. This chapter focuses on equipping you with the necessary information to get started: from running your first A/B test, to creating an environment where a scientific mindset can thrive, we'll top off this chapter with a step-by-step guide on how you optimize your pricing strategy .

Analysis

Just like scientists, growth marketers use various techniques to measure their growth. They set out with a well-defined growth plan, track their results over time and allow learnings from various experiments inform their future strategy. In this chapter, we will explore how you can measure your growth and ultimately optimize your strategy.

Let's get started

A good scientist is equipped with the right tools to make good observations and gather good data. The same is true for growth marketers today, and I predict it'll also be true for growth marketers 50 years from now.

If you're not already a better growth marketer than the authors of this guide, you can be. By choosing to read the tactics in this playbook, you've already demonstrated two of the fundamental characteristics of a great growth marketer – curiosity, and a desire to learn. So let's dive right in.



CHAPTER ONE

SEGMENTATION

FEATURING INSIGHTS FROM

Kyle Gesuelli — Head of Growth at Frame.io.

Michael Dearing — Founder of Harrison Metal,
an early-stage venture capital firm.

1.1

Identifying Your Most Valuable Customer Segments

Kyle Gesuelli

Head of Growth at Frame.io

If you work at a growth stage company, chances are you've asked yourself at least one of the following questions:

- "Who are my most profitable customers?"*
- "How do I get more customers like XYZ?"*
- "How many customers like XYZ are out there?"*
- "Am I building for the right portion of the market?"*
- "What's the overall market opportunity?"*
- "How much of the market have we captured already?"*

These are natural questions to ask, and most companies don't focus on answering them right out of the gate. As your company grows, and your team needs to start making tradeoffs between what features you build and where you spend your acquisition dollars, it's critical to understand where you'll be able to generate an outsized impact.

Answering these questions is a 4-step process that includes market segmentation, market sizing, competitive analysis and

finally, selecting your targets. In this chapter, we'll take you through why getting this right is so important, and exactly how to do it.

Why identifying your customer segments matters

Founders build from their personal experience, but the application is likely more broad.

Founders are often motivated to solve a problem they've experienced first-hand. For my current company, Frame.io, CEO, Emery Wells, experienced the pain of collaborating on in-progress video edits while running his small post-production studio, Katabatic Digital.

To solve this issue, he and a member of his team, John Traver, set out to build a product that made collaborating on video edits as easy as collaborating on a Google Doc. They built Frame.io by focusing on fulfilling the needs of freelancers and small companies like their own. However, over time, enterprise customers like Netflix began knocking on the door, looking for a better way for their thousand-person teams to collaborate on video content. In order to support these enterprise-level customers, Frame.io, as a product and an organization, needed to change fundamentally.

Over time, customers will begin to use your product in ways you did not anticipate

In the first version of Frame.io, there was no concept of presenting finished client work. However, in a single weekend, CTO John Traver hacked together a **“presentation page”** at the request of an early beta user. Fast forward a few years later, and a significant number of advertising and creative agencies use Frame.io solely for displaying their portfolios, reels, and completed client videos.

This highlights the fact that your customers will bend your product offering to solve the problems they face, and those problems may be different from the ones you originally intended to solve.

Expansion is the key to sustainable growth.

Once you've built a loyal customer base with the initial version of your product or service, you can generate more value with lower acquisition costs by expanding your offering to that existing audience. Understanding who your most profitable customers are, and how their needs evolve, is critical to driving that expansion.

You're over-indexing time spent on those with low willingness to pay.

One of the core audiences Emery and John originally built for, freelancers, often did not have the budget or sufficient work consistency to justify a subscription to Frame.io. While constituents from this audience made up over 80% of total accounts for Frame.io by January 2018, this group contributed less than 25% to overall revenue. In contrast, video teams of 5 or more made up only 20% of users, but drove 75% of the revenue. To scale revenue, it made much more sense for Frame.io to switch their focus to this smaller customer segment. This realization led to a huge strategic pivot in the company.

And with that, let's get started on the four step process!

Step 1: Segment your market

To understand more about who your current customers are and who your future customers should be, you first need to organize

them into discrete segments. A segment is a group of customers who display similar attributes:

- They may react similarly to a product offering
- They may provide comparable value (*i.e. revenue, profitability*) to your company
- They may have the same needs or behave in similar ways

Generating clear segments is a bit of an art and a science, but at the end of the day, two things must remain true: your segments should be mutually exclusive and holistically inclusive. Each customer or prospect should fit into at least one segment and none should fit into more than one segment.

For simplicity, it's best to keep total segments to 6 or fewer.

Build a matrix

To begin the segmentation process, it's helpful to think about constructing a matrix. The matrix centers on the two most critical but unique needs, values and attitudes that drive customers when they look for a solution in the market.

Settling on the most compelling differences that ensure each customer fits into one segment (*and one segment only*) takes a lot of trial and error. At Frame.io, we landed on:

- Is video primary to the company's revenue (*yes, no*)?
- How painful is collaborating today (*low, medium, high*)?

These axes generate a matrix with 6 segments, which we laid out as follows:

	Collaboration Pain		
Is video primary to revenue?	Low	Medium	High
Yes	Individual Creatives	Professional Video Companies	Video Giants
No	Small video investment	Large video investment	Business Critical Video

Define segment characteristics

The next step is to populate each segment's characteristics. For Frame.io, the characteristics included:

- # video team members
- # of distinct teams
- # concurrent video projects
- Sensitivity of video content
- Industry
- Key decision-maker(s)
- Creative software budget
- Average MRR

	Collaboration Pain		
Is video primary to revenue?	Low	Medium	High
Yes	Individual Creatives <ul style="list-style-type: none"> • # video team members • # of distinct teams • # concurrent video projects • Sensitivity of video content • Industry • Key decision-maker(s) • Creative software budget • Average MRR 	Professional Video Companies <ul style="list-style-type: none"> • # video team members • # of distinct teams • # concurrent video projects • Sensitivity of video content • Industry • Key decision-maker(s) • Creative software budget • Average MRR 	Video Giants <ul style="list-style-type: none"> • # video team members • # of distinct teams • # concurrent video projects • Sensitivity of video content • Industry • Key decision-maker(s) • Creative software budget • Average MRR
No	Small Video investment <ul style="list-style-type: none"> • # video team members • # of distinct teams • # concurrent video projects • Sensitivity of video content • Industry • Key decision-maker(s) • Creative software budget • Average MRR 	Large Video Investment <ul style="list-style-type: none"> • # video team members • # of distinct teams • # concurrent video projects • Sensitivity of video content • Industry • Key decision-maker(s) • Creative software budget • Average MRR 	Business Critical Video <ul style="list-style-type: none"> • # video team members • # of distinct teams • # concurrent video projects • Sensitivity of video content • Industry • Key decision-maker(s) • Creative software budget • Average MRR

Frame.io's matrix with important segment characteristics.

Add existing customers to segments

After defining your segments and their characteristics, the next step is segmenting your existing customers – or a least a representative sample.

	Collaboration Pain		
Is video primary to revenue?	Low	Medium	High
Yes	Individual Creatives <ul style="list-style-type: none">• XYZ• XYZ• XYZ	Professional Video Companies <ul style="list-style-type: none">• XYZ• XYZ• XYZ	Video Giants <ul style="list-style-type: none">• XYZ• XYZ• XYZ
No	Small Video Investment <ul style="list-style-type: none">• XYZ• XYZ• XYZ	Large Video Investment <ul style="list-style-type: none">• XYZ• XYZ• XYZ	Business Critical Video <ul style="list-style-type: none">• XYZ• XYZ• XYZ

Replace “XYZ” with your current customers.

Analyze behavior by segment

Once you’ve segmented your existing customers, it can be eye opening to analyze behavior or contribution to key business metrics by segment. At Frame.io, we dug into the following:

- # of accounts on a free plan
- # of accounts on a paid plan
- Contribution to total ARR
- Churn rate
- Most common plan
- Account seats
- Feature usage

We found very interesting results. As mentioned before, we determined the segment Individual Creatives comprised 80% of total accounts, but only 25% of revenue and they tended to churn at 4X the rate of other segments.

Step 2: Size your market

Now that you’ve developed a method to bucket customers and prospects, you can leverage these learnings to identify the full market opportunity. *Opportunity* can be defined in many ways, but the most common definition among SaaS companies like Frame.io

is potential annual recurring revenue. To determine that potential revenue, you'll need to understand how many entities can utilize your product/service and how much, on average, they would be willing to pay you each year.

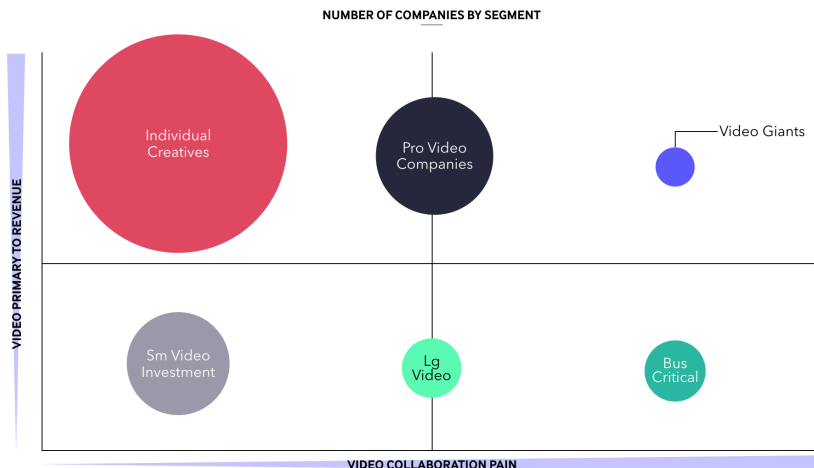
Identify quantity of potential entities

You can use the characteristics of existing customers to identify new prospects. This process will differ for B2C companies vs. B2B companies. At Frame.io, we leveraged a combination of industry (*utilizing NAICS and SIC codes*) and employee range to search for the quantity of potential companies that could use Frame.io.

There are some great firmographic data resources out there that can help with this. At Frame.io we leveraged [ZoomInfo](#), but [Dun & Bradstreet](#) is another excellent option.

If you're a B2C company, more industry and trend research may be required to identify the population with similar demographics and behaviors.

Once you've determined the volume of potential customers, it's helpful to lay them out in a chart like the one below for comparison.



Calculate potential value

After determining how many potential customers exists, the next step is to determine how much, on average, each customer can pay you in a given year. You can use existing customer spend as a proxy, but you'll likely undervalue their spend potential. As a growth stage company, you're likely to drive more engagement from existing customers and introduce on add-ons that can be cross-sold over time, increasing your potential revenue.

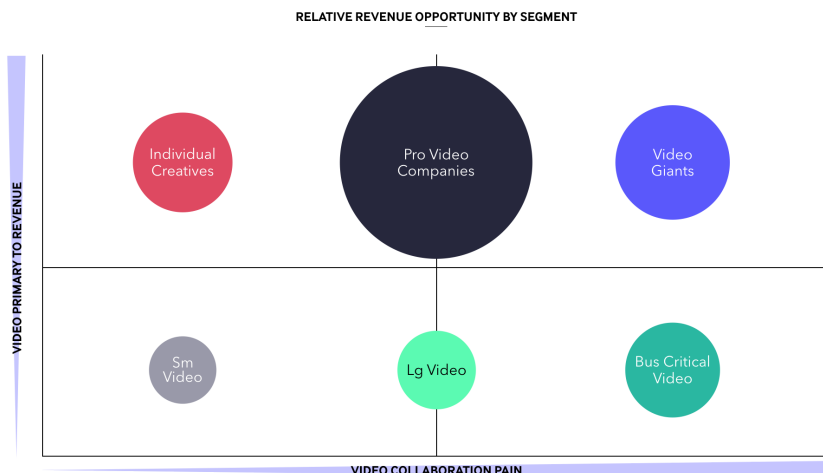
At Frame.io, we used a combination of the following metrics to determine potential ARR

- Employee size
- % of employees involved in video
- Average seat price

Calculate market opportunity

Calculating the market opportunity is simply the sum of the product of potential entities and their potential value.

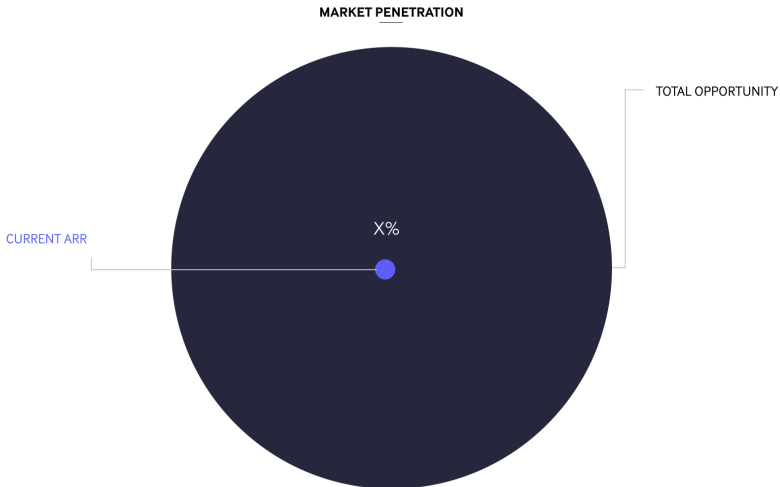
Once you complete this step, it's also helpful to layout the relative opportunity by segment in a chart like the one below.



What stands out is the fact that the market opportunity by segment is completely different than the volume of entities by segment.

Identify your market penetration

To answer that initial question, “*how much of the market have we captured already?*”, you can simply compare current ARR to the potential ARR. For growth stage companies, it’s often a pleasant surprise to see just how little of a market has already been captured and what remaining opportunity exists.



Step 3: Competitive analysis











































Now that you’ve determined the overall market opportunity and the relative opportunity by segment, you might have the urge to rush into focusing on the largest market segments by opportunity. However, that decision would be shortsighted, without first performing an analysis of the competitive landscape.

Some segments of the market may be crowded with competition. Other segments may require significant investment to serve well. To drive an outsized impact with limited resources, you ideally

want to focus on the segments with the largest opportunity that you currently serve well and have little competition.

Develop a segment fit index by competitor

How well do you and your competitors currently serve each segment of the market today? To determine a “*segment fit*” index requires a solid understanding of customers’ needs and your competitors’ offerings. Once you’ve completed that research, you can record segment fit in a chart like the one that follows this paragraph.

	Customer Segment					
Market Player	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
You						
Competitor 1						
Competitor 2						
Competitor 3						
Competitor 4						
Competitor 5						
Competitor 6						

This exercise helps answer the following questions:

- Who do you best serve today?
- Who do you need to serve better?
- Where do you face the most competition?

You’ll naturally start to list the features or offerings you need to bring to market to better serve those underserved segments. The next question is how much investment is required to bring your offering up to par or exceed your competition in a given segment.

Step 4: Select your target segments

Now that you've got all the building blocks in place, you can make a decision as to where you want to compete, where you want to invest, and how much time and resources you're willing to invest in each segment.

As a growth phase company, the most important action you can take for success is to spend your time and resources on the activities and customers who will drive the most outsized impact for your business.

The exercise thus far has provided you with the information you need to determine which 1-2 segments your companies should prioritize. This decision can help every team in your organization focus on work that will most dramatically impact your bottom line.

Once your organization knows its core segments, your product team knows who they should build for and more importantly, who they shouldn't build for. Your sales team is better equipped to know which inbound requests they should prioritize, and more importantly, with whom they should be filling their prospect lists. Your marketing team knows which channels and audiences they should target, and the messaging that's most relevant to your core segments.

Selecting those 1-2 core segments is again a bit of an art and a science, but should be informed by answering the following questions:

- Who do you best support today?
- Where's the largest opportunity?
- Which underserved segments can you most easily bring up to par?
- Where will your competition invest?

After completing this exercise at Frame.io, we decided to focus on the Professional Video Companies and *Video Giants* segments. Since that decision, the entire organization has felt a stronger strategic direction, and I hope this advice helps your company do the same.

1.2

Easy Breezy Behavioral Segmentation

Michael Dearing

Founder of Harrison Metal, an early-stage venture capital firm

About 100 years or so ago, a few years after the MBA program was founded, Professor Melvin T. Copeland started teaching capital-M Marketing at Harvard Business School. Thanks to his early work, marketing became its own domain in business education. And business school academics and marketing practitioners ever since acknowledge that customer segmentation is a key to growth.

It's key because when you segment customers, you can vary the features in their products, the messages you use to talk to them, the type of customer support they get, or even their pricing. When you do that, you can increase growth through higher conversion rates and higher revenue per user. And you can increase profitability because each dollar of product, marketing, and support spend works harder for you.

Sometimes people assume that good segmentation is complex and time-intensive to build. In my experience, that's not the case. In fact, with only a few simple ideas, you can build a terrific segmentation to guide your product, marketing, and customer support.

If your users are everyday people, you might be tempted to segment them based on demographics (*gender, age, income*). That's been a popular way to do it for many years. Popular and lazy.

Demographic-based segmentation is really just a descriptive segmentation of who they are, not a segmentation based on how they behave.

Behavioral segmentation is more powerful than descriptive segmentation for both consumer and business users. When you use people's actions to sort them into clusters, you can build a much more direct connection between the product, marketing, and customer support investments you make and the business outcomes that you want.

If you want to be great at this, you need to do three things:

- Gather data about your customers actual usage of your product or service;
- Analyze it using a few simple human and machine methods;
- Use the resulting insights to guide real business decisions in product, marketing, and support.

The behavioral segmentation I like has three parts. The first sorts users based purely on their activity. It's called Recency-Frequency-Monetary Value segmentation, or RFM for short, and it's simple enough to do by hand. The second is a machine-based method called K-Means Clustering. It spots groups of users who are "*closest*" to each other behaviorally but might be invisible to a human eye. Third, Sequential Pattern Mining spots the common lifecycle events that led high-value users and low-value users to become the way they are.

Tactic: R-F-M

This technique was invented in the mid-20th Century in the catalog business in the United States. But it's just as useful today. Here's how you do it in four steps:

Step 1: Gather data

Gather data on every user's activity (*each instance with the date*) and how much money they generate. Use your judgment to define "activity" (*a session, an engagement with a particular feature, or a purchase*) and "money" (*direct measures like gross merchandise sales, your direct revenue, or indirect measures like dollar value of ad impressions they saw or amortized subscription revenue*).

Step 2: Calculate

For each user calculate their measure for: R - Recency (*days since last activity is a good one*); another measure for F - Frequency (*days active / days since registration is a common example*); and a third for M - Monetary value. Use your judgment to decide if you need to time-bound F and M measures (*for instance, last 60 days instead of lifetime*).

Step 3. Sort

Sort the entire user base into quintiles (*five equal sized groups*) by R measure. By this I mean sort the user base by the value in the R column, break them into five equally sized groups, give every member of the quintile with the "**worst**" recency a 1. Score the users in the second quintile 2, third quintile 3, and fourth quintile 4. Finally, give every member of the quintile with the "**best**," most recent activity a score of 5. Your users now have R - Recency scores of 1 through 5.

Step 4. Repeat

Repeat step 3 for F - Frequency, and M - Monetary measures. 1 = lowest performing 20%, 5 = highest performing 20%.

How to understand your RFM score

Every single user is now tagged with a three-digit RFM score. The digits define where in the RFM “*space*” – a 5x5x5 cube defined by the RFM axes – each user exists. While there are 125 cells in this cube, that does not mean you have 125 actionable segments for varying product, marketing, or customer support. The actionable segments for product, marketing, or customer support purposes are made up of multiple cells grouped based on your business judgment.

I guarantee you will never think of your users the same way again after you have made an R-F-M cube.

For example, one ecommerce app company that uses RFM decided that their Highest Value Users (*HVUs*) included 5-5-5, 5-4-5, 5-4-4, 5-5-4, and 4-4-5. Those five cells alone accounted for more than 75% of total company revenue. And they decided to group 4-4-4 and 4-3-4 into a High-Potential Users (*HPUs*) segment. This company built social media acquisition campaigns targeting HVU look-alikes, product marketing directly to HPUs to promote features loved by HVUs, and boosted customer support for both of those segments because they were worth it economically. In the months that followed, the company was able to 8x their total revenue using a new strategy based on behavioral segmentation. Behavioral segmentation + great business judgment = good work.

RFM method summary

RFM segmentation was invented by the catalog retailing industry in the 20th century. It's an all-purpose segmentation method used to sort users so a human can spot low-, medium-, and high-value clusters.

1. Select variables for R, F, and M

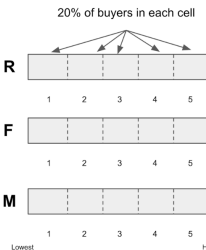
	1	2	3	4	5
Recency	10	20	30	40	50
Frequency	10	20	30	40	50
Monetary	10	20	30	40	50

Recency = days_since_last_session

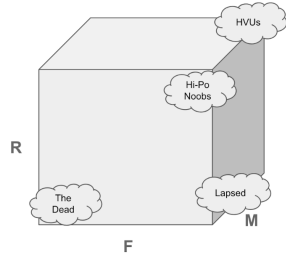
Frequency = number_of_sessions divided by days_since_install (corrects for age effects)

Monetary = money_spent

2. Sort buyers into R, F, and M quintiles; each buyer gets an RFM score



3. Plot and look for interesting clusters



Note: each buyer is sorted into R, F, M quintile independently; one's R, F, or M score, therefore, is completely independent of one's other two scores.

You can automate the living heck out of this, re-run the scoring daily if you like, tune and tweak it to your heart's delight. Whether you do it manually or with machines, I guarantee you will never think of your users the same way again after you have made an R-F-M cube. It sparks questions like:

- How concentrated is my business in the high-value-segments?
- How do the users in the boundary zones (2s, 3s, 4s) change over time?
- Where did my 5s come from? How do I find more?
- Can I get my 3s and 4s to step-it-up and act more like my 5s?
- Am I wasting effort on 1s and 2s? Or are there some lapsed 5s in there I should go back after with targeted investment?
- Why am I capping my acquisition spend based on average user value? Why not target my spend at my high-value and high-potential (3s and 4s who can become 5s)?
- Most important question of all: How can I treat them differently – product, marketing, support – so that I maximize their value?

If you stop here, you are in the 99th percentile of businesses with respect to segmentation. Sad, but as my mom and dad always said, ***“A low bar is your opportunity, MD!”*** With just R-F-M, you have a powerful behavior-based segmentation that can inform product, marketing, and support investments.

Tactic: K-Means Clustering

The R-F-M space I described above is a nice frame for this slightly more advanced approach. K-Means Clustering is machine-driven technique that spots relationships between users that would take you forever to find using a human eye. The name ***“K-Means”*** refers to the number of clusters (*K*) and the machine-driven optimization

of the mean distances between users to the centers of these clusters. That's a mouthful. So here's a simple explanation of how it works.

Step 1: Access and run

Using the same user data set as in R-F-M (*make sure you use the measures of R, F, and M, not just the quintile score 1 - 5*), access and run the K-Means clustering tool in your analytics package of choice (*like R or matlab*). K-Means is an **“unsupervised”** method that starts by automatically drawing **“centroids”** (*machine-drawn shapes centered on a point in space*) around clusters of users that seem like they might go together. Imagine the machine is scanning the cloud of users and drawing boundaries around the ones that seem like they are similar.

Step 2: Iterate, iterate, iterate

K-Means tries thousands of iterations to improve the centroids' shapes until it has minimized the differences between members of the same cluster – measured by each user's distance from the center of the shape – and maximized the differences between the clusters. It stops when no better centroids can be drawn. This is the part that would take a human until Doomsday. So, thank you, Industrial Revolution!

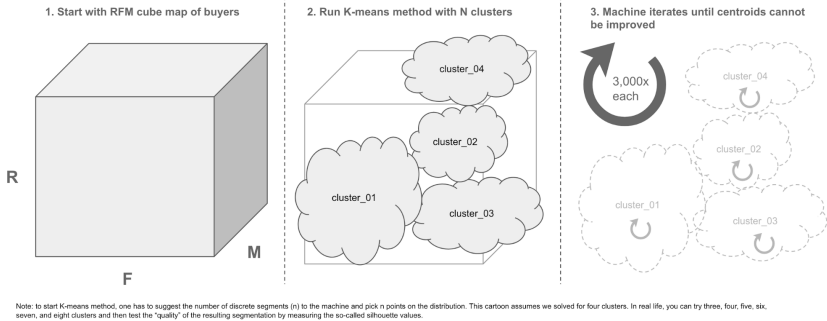
Step 3: Assess

The clusters that fall out of K-Means might be subsets of R-F-M segments. Or they might be completely independent of your R-F-M work. But with K-Means Clustering, you can quickly have a whole new lens on customer segments that would have been invisible to your human eye.

All this prompts similar questions as the R-F-M did, including the most important question of all: *“Given their unique behavioral profiles, how might I treat the clusters differently – using product, marketing, support programs – to maximize their value?”*

K-Means method summary

K-Means is machine-driven. By trial-fitting thousands of alternative “centroids” (machine-drawn shapes containing clusters of like users) to the user population, the method suggests segments that minimize differences within a cluster and maximize differences between clusters.



Tactic: Sequential Pattern Mining

This one you can do manually or by machine. The principle is the same either way. But let’s start assuming you are doing it by hand so it’s easier to imagine.

Step 1: Gather data

Gather lifetime data about a group of interesting users (*could be an R-F-M segment, could be a K-Means cluster, or just your top 25 users*).

Step 2: Write it all out

For just one user in that segment, write out the chain of events they experienced, the actions they took (*including all marketing, product, and support interactions*), from day zero to today. Not kidding. Write the event, put an arrow to the right of the event pointing at the next event. You want to make a map of that user’s journey that leads up to today.

Step 3: Repeat

Repeat for the next users on the list. And the next. And the next.

Step 4: Recognize patterns

Start to notice the overlaps in their journey as well as the differences. Write down your observations about the patterns, the sequence of steps they passed through. You will naturally build clusters of users who had similar journeys. It's like you are stacking all the drawings from step 2 to get a master map of the whole population's journey.

Step 5: Hypothesize

Write a hypothesis – to be used to inform product, marketing, support decisions – that explains the migration of users from newbie to high-value veteran. Or from newbie to low-value lapsed.

Now imagine doing steps one through five with a machine. You can process huge volumes of users very quickly. You can – or the machine can – spot sequential patterns that are non-obvious humans (*like non-adjacent-sequential events predictive of high or low value*). This is a very powerful form of behavioral segmentation: use events to sort and group users. With these insights you can modify your product, marketing, and support investment plans to maximize the good patterns and minimize the bad ones. Thank you, again, Industrial Revolution.

Just like with R-F-M or K-Means Clusters, you can use the insights you gather from Sequential Pattern Mining behavioral segmentation to answer the fundamental question: How might I treat user segments differently – through product, marketing, or support – to maximize value?

Parting thoughts

In ten minutes of reading this and a few hours of playing with the numbers, you can be in the Varsity squad of segmentation. If you can connect insights from simple, behavioral segmentation to your product, marketing, and support operations, you can be in the 99th percentile of all business people who have ever lived on Earth with respect to customer segmentation. It shouldn't be that easy. But it is. :)

These tools are Swiss Army knives: generally useful in lots of situations. Use them and let me know if I can help you think through the analysis or the application of them to your business (*md@harrisonmetal.com or @mcgd on Twitter*). I have used these techniques – directly myself and coaching others – to help create billions of dollars of value. Segmentation works. Now go and try it.



CHAPTER TWO

ACQUISITION

FEATURING INSIGHTS FROM

Kendall Saville — Co-Director of Catena Media US and angel investor in technology startups.

Chipper Nicodemus — Senior Manager of Acquisition at Segment.

Heather Watkins — CEO of Better Impact Marketing, and formerly Senior Director of Marketing at Optimizely.

2.1

Driving Organic Search Traffic

Kendall Saville

Co-Director of Catena Media US and angel investor in technology startups

While there are over 200 factors that impact a site's Google search rank, a thorough SEO site audit may take into account the top 50 or 100 factors and attempt to optimize them.

That said, by prioritizing the on-page factors that have the biggest impact on search ranking (*namely, keywords, page titles and content*), you can significantly improve your sites rank. In this article, we'll walk through the following three strategies to optimize your SEO efforts:

- Complete a Thorough Keyword Research
- Formulate Winning Page Titles
- Optimize On-Page Content

Tackling these strategies in this order will flow naturally with the way a site is developed and launched.

Strategy: Complete a Thorough Keyword Research

When deciding what content to put on your pages, the first step is always keyword research. Keyword research will unearth what search terms provide the biggest opportunity for new pages to rank well (*factoring in current competition, as well as the amount of currently monthly search volume—read: total searches for that term*).

Although a keyword (*or set of keywords*) may be relevant for your site/page, ranking well for those terms may be nearly impossible due to the ‘authority’ that your competitors already have for those terms. Easily determine how to prioritize your target keywords with the following tactics.

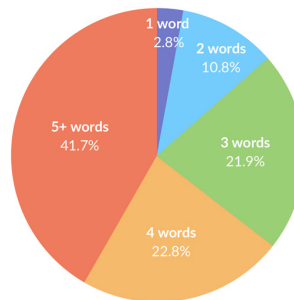
Tactic: Select the long-tail keywords with low quality, high volume search results

One way to increase your chance of ranking well is to tailor your site or page around long-tail keywords, or specific 3+ word search phrases. For instance, instead of your page having a focus keyword of “**online marketing**”, “**online marketing strategies**” may be a better focus.

By doing so, you’re more likely to be ranked well for that more specific term, and the traffic that you drive to that site or page via search will be more targeted.

Keyword length distribution

Total keywords = 1.4 Billion



ahrefs

Users are getting more sophisticated – the length of search queries continues to go up.

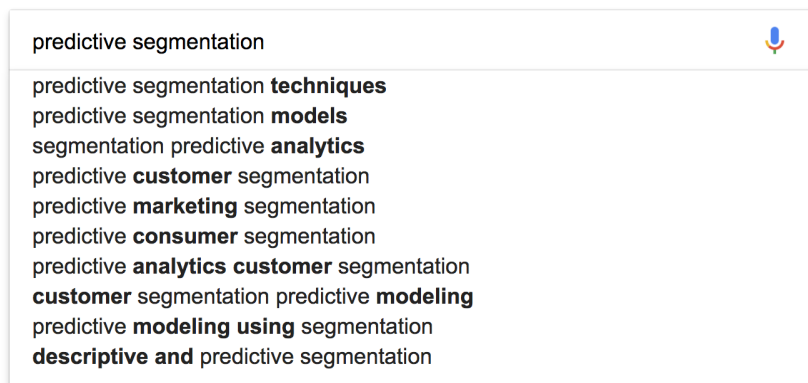
Amongst hundreds of factors that influence rank, for this tactic we’ll focus on one: domain authority. Sites with high domain authority likely have TONS of other sites linking to them, generate a

lot of traffic, and are well established. If a search results page is only populated with sites with high domain authority, it will be extremely difficult to get your page to rank well for that term.

This is why long-tail keywords with multiple, high ranking and low quality search results are a good target to after with your keyword strategy. You may have a decent chance of ranking well for those long-tail keywords, dethroning some of the lower quality results.

How to find your target keywords

1. Create a short list of 20 keywords relevant to your site.
2. Type each in of your keywords into Google.
3. In a spreadsheet, record the long-tail auto-suggestions that match or are related to your site.



Google makes this easy by auto suggesting long tail keywords once you enter a basic query.

4. Download the free “Moz” bar in order to see the page and domain authority directly within Google search results.
5. Input each of the relevant long-tail keywords in a Google search.

What is Internet Marketing? Your Guide to Today's Online Marketing

<https://www.searchenginejournal.com> › Content Marketing ▾

Jan 8, 2018 - Here's everything you need to know about **internet marketing**, also known as **online marketing**, to help your business or brand drive traffic, ...

1) PA: 53	3,164 links / 197 RDs	DA: 80	2,533,332 links / 44,433 RDs	Link Analysis
-----------	-----------------------	--------	------------------------------	---------------

A view of the “Moz” bar. The leftmost column lists page authority and the middle column lists domain authority.

6. In the spreadsheet, record the organic results (*not the ads*) that appear for that term on the first page, along with its page and domain authority.
7. Average out the page authority and domain authority for each first page result.
8. If the page OR domain authority is below 30, it is a signal that there is opportunity to rank well for that term (*especially if your own site has a comparable or higher domain authority*).

This gives you a good idea of what keywords will provide the best opportunity for you to get ranked.

Tactic: Plan content by comparing current and predicted popular keywords

[Google Trends](#) provides an extremely quick and simple way to determine the popularity of keywords and predict future trends as well.



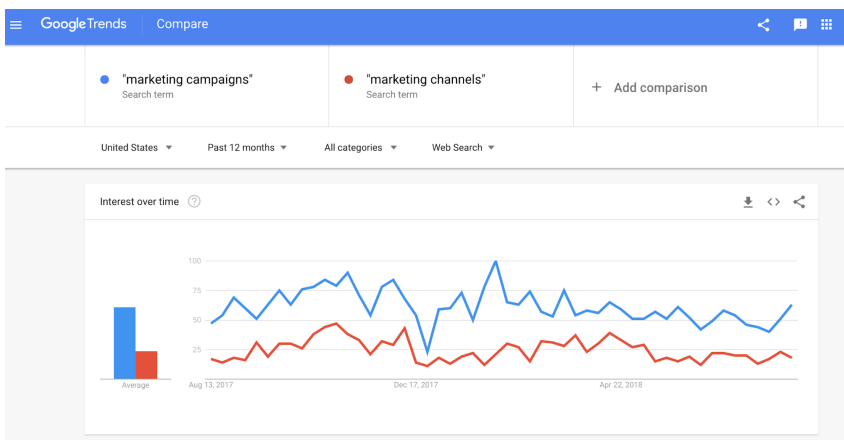
Using Google Trends is an easy way to:

- Plan content around content/topics that are trending up in popularity
- Tailor your page content to ride the trajectory of hot search terms and get a leg up on your competition
- See if a certain keyword/topic is gaining momentum or declining in interest
- See terms related to your search term

- See how your branded keywords compare in popularity to your competitor

Getting started with Google Trends is easy.

1. Input multiple keywords into Google Trends (*use quotation marks so it gives you the exact phrase, instead of a broad match*)
2. Filter by country or language
3. And bam! Trends will instantly plot out popularity of the terms over time, like so:



Strategy: Formulate Winning Page Titles

Now that you've got your long-tail keywords, take your most important ones and those you have the best chance of ranking well for and use them in one of the most important aspects of on-page SEO – page titles. Titles give Google insight into the core theme or message of a page and also appear on search engine results pages. Being thoughtful when constructing titles can increase your click rate, leading to significant positive results for search ranking. Here are some great tactics to employ:

Tactic: Make titles clickable.

Along with the keyword(s), use words like **“Best” “Top” “Greatest”** etc in titles to increase the perceived value of the page content. In addition, include the current year in a title to help visually differentiate your titles from others. Searchers value **“current”** information.

2018's Best Credit Cards - Picks For All Credit Scores - WalletHub

<https://wallethub.com/best-credit-cards/> ▼

Compare the **best credit card** offers with \$400+ rewards bonuses, 0% APRs & \$0 fees. Browse editors' picks of the **top credit cards** of 2018 & read user reviews.

Best Credit Cards of 2018 - Compare Top Cards with Expert Ratings

<https://www.cardratings.com/best-credit-cards.html> ▼

Winner: Chase Sapphire Preferred® Card. Why It's the Best Travel Rewards Credit Card: In a word: Flexibility.

FLAT-RATE CASH-BACK · TIERED CASH-BACK · SMALL BUSINESS · 0% APR

Top 20 Most Popular Credit Cards of 2018 | Credit Karma

<https://www.creditkarma.com/credit-cards> ▼

Find the **best cards** with thousands of reviews. 0% intro APRs, no annual fees, and up to 1.5% cash back on select cards. See if you qualify.

The titles of the top search results for “best credit cards” all include a date. We can then conclude that this title structure works well for this industry – including yours, perhaps.

Tactic: Avoid unnecessary words.

Titles should be **“easily digestible”**, so forgo any filler words in the title that don't add meaning or value. Titles that are bloated are often **“skimmed”** over by searchers. A good rule of thumb is to keep title tags short than 60 characters to ensure it will display correctly on Google.

Tactic: Do title research.

Writing titles is a science and the most successful sites have figured out a title structure and approach that works well. I like to derive title inspiration by doing Google searches that are related to highly competitive industries (*for example, credit cards and auto loans*). This is a simple, yet powerful way to create titles that generate positive results in search.

It's important that, once you get those clicks, the content also serves the searcher's needs. Reducing bounce rate and increasing time on page are also signals to Google that the page 'solves' a searcher's need. Conversely, pages that get a high number of clicks but have a high bounce rate will tell Google that the page doesn't actually align well with the search term/the searchers needs.

Strategy: Optimize On-Page Content

You've formulated your keywords and decided on one long-tail keyword for each page. You've created a powerful title for that page that is optimized for clicks. Now it's time to consider content ON the page. There are 100+ on-page ranking factors you can apply to your page structure, content, etc. In this section, we'll go through 3 content approaches that can significantly impact your rank with limited effort.

Tactic: Add to existing content

Creating original content is time consuming and can be difficult to do at a regular cadence. While sharing existing content is an easy way to generate content for your website, Google punishes sites that rely too heavily on duplicate content. Therefore, don't copy and paste content in full and use quotes and citations sparingly, making sure to include a link in the post that gives credit to the original content source.

If you're going to use existing content in a page or post, be sure to add additional value and information around that referenced content. One way to do this is to combine multiple sources into one post.

For example, let's say you're creating a page on ***"why SEO is beneficial"***. Instead of only including content from one source, find multiple pieces of content from around the web that support your argument. This will increase the depth of your content, and will provide additional value around your post/page. You have to give

Google a reason to rank your page ahead of the other established pages you may be referencing.

Tactic: Keep your pages updated

When a new page goes live, or when it is updated, Google deems it more **“fresh”** (see [here](#) for more info) and therefore, more likely relevant for searchers. Hence, these **“fresh”** pages are more likely to be ranked higher. That’s why you often see posts on the first page that have THIS year’s date and not a previous year.

To keep your ranking sustainable:


- Don’t think of a post/piece of content as something static. Instead, your most popular pages should be updated periodically to show Google that they are fresh and dynamic.
- If you want to update a blog post, add a **“What’s New”** or **“Updated on XX/XX/20XX”** header to the top of your post and include updated information below it.
- Change the official publish date—easy to do in a CMS like WordPress—to the updated date.

Tactic: Provide tables and answers

Featured snippets, also called **“zero rank”**, are text or information blocks that appear above paid and organic search results. Featured snippet content typically has a much higher click-

Domain Authority (DA) is a search engine ranking score developed by Moz that predicts how well a website will rank on search engine result pages (SERPs). ... **Domain Authority** is calculated by evaluating multiple factors, including linking root domains and number of total links, into a single DA score.

[Moz - What is Domain Authority? - Learn SEO](https://moz.com/learn/seo/domain-authority)
<https://moz.com/learn/seo/domain-authority>



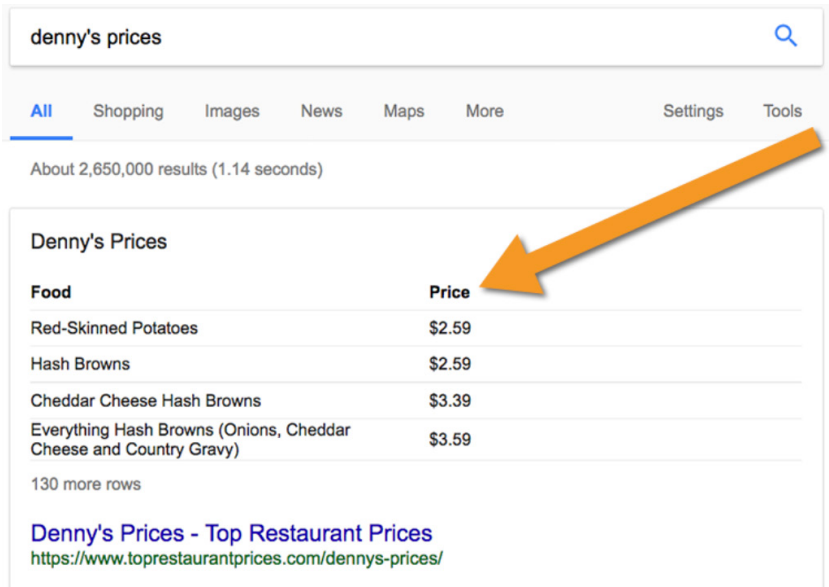
An example of a Google featured snippet.

through-rate (*CTR*) than paid and organic results – often 4 to 5 times the normal *CTR*.

Google uses a formula to choose featured snippets, but you can optimize your content to [increase your chances](#). For example, if your page includes a list, comparison table, or directly answers a question, it may be a good candidate for a featured snippet. Pages that already rank in the top 10 are the most like candidates to have content pulled for featured snippets.

For questions, the formula is simple:

1. Ask your target question in your article (*that may be a subheading*)
2. Immediately follow the question with a one-paragraph answer



The screenshot shows a Google search for "denny's prices". The search bar is at the top with a magnifying glass icon. Below the search bar are tabs for "All", "Shopping", "Images", "News", "Maps", and "More". The "All" tab is selected. Below the tabs, it says "About 2,650,000 results (1.14 seconds)". The featured snippet is titled "Denny's Prices" and contains a table with two columns: "Food" and "Price". An orange arrow points to the "Price" column header. The table lists four items: "Red-Skinned Potatoes" for \$2.59, "Hash Browns" for \$2.59, "Cheddar Cheese Hash Browns" for \$3.39, and "Everything Hash Browns (Onions, Cheddar Cheese and Country Gravy)" for \$3.59. Below the table, it says "130 more rows". At the bottom of the snippet, there is a link titled "Denny's Prices - Top Restaurant Prices" with the URL "https://www.toprestaurantprices.com/dennys-prices/".

Food	Price
Red-Skinned Potatoes	\$2.59
Hash Browns	\$2.59
Cheddar Cheese Hash Browns	\$3.39
Everything Hash Browns (Onions, Cheddar Cheese and Country Gravy)	\$3.59

130 more rows

[Denny's Prices - Top Restaurant Prices](https://www.toprestaurantprices.com/dennys-prices/)
<https://www.toprestaurantprices.com/dennys-prices/>

Comparison charts and simple lists (that provide an answer to a question) may be grabbed by Google and added to a featured snippet—with no special code or markup required.

Like search results, rich snippets change over time. Monitor and adjust your content plan accordingly.

Follow this guide to optimize your approach to SEO and start generating more organic traffic today.

2.2

The 8 Steps To Launch A Targeted Facebook Ad Campaign

Chipper Nicodemus

Senior Manager of Acquisition at Segment

So you want to run some ads on Facebook? Awesome! Before you go boosting away (*seriously DON'T do that*), you should take a step back and be thoughtful about the entire process. This article should serve as a high-level guide to set up your first few FB ad campaigns.

Step 1: Set a Campaign Objective

The key to a successful ad campaign for any channel is to make sure it is aligned with business goals, objectives and KPIs. You can do this outside of FB and it is a good practice to have for any paid media you are running. It doesn't matter if you are tasked with driving top of the funnel leads, selling more pairs of sneakers, achieving a certain ROAS (*Return on Ad Spend*) or even increasing engagement and likes on your FB business page – having the proper focus on objectives will make the entire process move much more smoothly.

To help you determine the campaign objectives, think about:

- What are the goals of the company?
- What are the goals of my team?
- What are my goals and/or objectives and key results for this quarter?
- Will this campaign objective drive to the success of my goals?

Here are some recommendations for a few different biz types:

- If you are a business that is driven by profits or is going for cash flow positive, you will want to have a ROAS goal. ROAS is how many dollars you get in return for each dollar of media spend.
- If you are a B2B company and are looking for low cost leads to drive your top of funnel sales to pipeline, the campaign objective would be cost per lead.
- If you are, for instance, a new and modern shoe company that wants to spread the word about your new kick-ass brand, the objective would be awareness.

Step 2: Setup your FB pixel

Great! You have your campaign objective in place for each campaign. Now would be an excellent time to ensure you have the FB pixel on your site. It is recommended to have a site-wide pixel as well as on any pages, screen or event that you would classify as a **“conversion.”**

For example: (*example.com/shop/order-complete-thanks*) is the page that you see after completing an order on an ecommerce site. Accordingly, that page would get a conversion pixel so that FB can track and optimize for that conversion event. Alternatively, if you are

sending **“Order Complete”** events into Segment, I would have that pixel fire on that event.

Step 3: Select Ad Type

Once you have your goals on lockdown, you will select the ad type. This step should be created quickly and easily based on your goals. Here are some goals you can select from:


Awareness	Consideration	Conversion
Brand awareness Reach	Engagement App installs Video views Lead generation Messages	Conversions Catalog sales Store visits

For this example, let’s say you want to grow your audience on your podcast. In that case, you would select the **“Audience Growth”** ad type.

Create Ad


Use Existing Post

☒




Ad with an image or video

☐



Ad with multiple images or videos in a carousel
(Recommended)
Show multiple images or videos for the same price. [Learn more.](#)

☐



Collection
Feature a collection of items that open into a fullscreen mobile experience. [Learn more.](#)

Fullscreen Experience

Add a mobile landing page that opens instantly from your ad. Start with a template or create a custom Canvas to feature photos, videos or products and encourage action. [Learn more.](#)

☐ Add a fullscreen Canvas

☒ Image

☐ Video / Slideshow

Step 4: Do Some Thinkin’ (Audience, Placements, Budgets)

Now we’re at the part where you’ll need to do some deeper thinking to figure out who you’ll be targeting, where you should place your ads and how to get the most bang for your buck. Let’s dig right in!

Audience/Targeting

Simply put, having precise targeting will give you the highest **“relevancy”** score, resonate with potential customers and buyers, and have the highest chance of success for your goals for your FB campaign. What is the ideal prospect, customer or visitor you want to be interacting with for this campaign? If you are Nike, it might be the hype beasts who are always picking up the newest, hottest shoes.

It is a good idea to first test out a few different audiences that are still aligned with your ad type goals and then see which one your campaign resonates with most. If you’re having a tough time deciding between a specific or broad audience, keep this in mind: unless your objective is to build brand awareness, go with a highly targeted audience over a broad one and think back to your objectives. If you’re looking to drive traffic to your website or app, you’ll want to focus on the type of people you know will be interested in your brand and what you offer.

Unless your objective is to build brand awareness, go with a highly targeted audience over a broad one and think back to your objectives.

However, if you are looking to build brand awareness or promote a widely appealing offer, feel free to focus on a more general

audience. Pro tip: Once you find an audience that works well for your goals, run with that! You can also try expanding the targeting, targeting a larger percentage of lookalike audiences, or even geography, in order to take advantage of your audience.

Placement Options

It is also essential to do some thinking about where you want your ads to be, based on your product, service, and audience. There are two options. The first lets Facebook’s algorithms place your ad where it will reach your selected goals. The second option gives much more granular controls to where your ads will be shown. For example, if you aren’t selling a product like sneakers, then maybe you don’t want your ads showing up in the Facebook Marketplace.

These are the current placement options for Facebook, Instagram, the Audience Network and Instagram:

Facebook	Instagram	Audience Network	Messenger
Feeds Instant Articles In-stream Videos Right Column Suggested Videos Marketplace Stories	Feeds Stories	Native, Banner and Interstitials In-Stream Videos Rewarded Videos	Inbox Sponsored Messages

Beyond the apparent adage of ***“don’t spend more than you have”***, it is essential to make sure you have your budgets aligned with your bigger paid media budget and company commitments. Deciding what budget to set for testing out a new campaign can be a tricky process, but I would recommend starting small and if you see early success, then scale up. Determining early success is easy since you already know what your goals are for the campaign. For example, if your goal is a ROAS of 4 and you have spent \$50 so far on your campaign which has generated \$340 in sales, that’s more than a 4 ROAS, so I would increase the budget and watch carefully to see how it continues to perform.

You can set budgets at the account, campaign, ad set, and ad levels, so there is a ton of control for how much you spend. It's also important to note that Facebook does allow for overspending of a budget by a predetermined percentage, if it is performing well. So, if you have your budget set to \$100, they are actually authorized to spend up to \$125.

The screenshot shows the 'Budget & Schedule' section of a Facebook ad campaign. The 'Daily Budget' is set to \$100.00 USD. A note states 'Actual amount spent daily may vary.' and a tooltip explains that Facebook may allow spending up to \$125.00 on some days to maintain an average daily budget of \$100.00. The 'Start Date' is Monday, Aug 20, 2018 10:19am Pacific Time. The 'End Date' is set to 'End run on:' with a date of Sep 20, 2018 and a time of 12:00AM Pacific Time. Under 'Ad Scheduling', the option 'Run ads all the time' is selected. To the right, the 'Audience Definition' and 'Estimated Daily Results' sections are partially visible, with the latter showing 'Results are unavailable'.

Step 5: Build Your Audience(s)

You have your KPIs, audience ideas and conversion events all set, so time to get building! You can export your customer data list or use a nifty tool like Segment Personas to create and auto-upload your custom audience to Facebook. If you don't have a tool like Personas or [Clearbrain](#), then you can make your audience right in Facebook.

Create Audience

On Facebook, create an audience list through:

- Customer file (*from a tool like Segment or Clearbrain*)
- Website traffic (*based on your FB pixel*)
- App activity
- Offline activity
- Engagement

Create a Custom Audience

How do you want to create this audience?

Reach people who have a relationship with your business, whether they are existing customers or people who have interacted with your business on Facebook or other platforms.

Customer File
Use a customer file to match your customers with people on Facebook and create an audience from the matches. The data will be hashed prior to upload.

Website Traffic
Create a list of people who visited your website or took specific actions using Facebook Pixel.

App Activity
Create a list of people who launched your app or game, or took specific actions.

Offline Activity UPDATED

Create a list of people who interacted with your business in-store, by phone, or through other offline channels.

Engagement UPDATED

Create a list of people who engaged with your content on Facebook or Instagram.

This process is secure and the details about your customers will be kept private.

Cancel

Then, you want to map your data to identifiers like email, phone number, first name, last name, Facebook App User ID, Zip/Postal code, and more.

Identifiers you can use (15)

Email

Phone Number

Mobile Advertiser ID

First Name

Last Name

ZIP/Postal Code

City

State/Province

Country

Date of Birth

Year of Birth

Gender

Age

Facebook App User ID

Facebook Page User ID

Now, select your original data source.

Your options are:

- From customers and partner
- Directly from customers
- From partners
- Alternatively, you can copy and paste your data

Original Data Source ⓘ Select the origin of this upload ▼

☐ Add a new file (CSV)

☒ Copy and paste

chipper@segment.co

From customers and partners
Advertisers collected information directly from their customers and it was also sourced from their partners (i.e. agencies).

Directly from customers
Advertisers collected information directly from their customers.

From partners
Advertisers sourced information directly from their partners (i.e. agencies or data providers).

You now have the chance to name your audience and edit data mapping, before your list is hashed and created, like so:

Create a Custom Audience ×

1

2

3

4

Add Customer List Edit Data Mapping Hashed Upload & Creation Next Steps

Preview and map your identifiers

Map your data to upload it. Your data will be hashed before it's uploaded. [Learn more.](#)

chipper@segment.com	✓	Email ▼
Empty row		

1 column is mapped and will be uploaded: Email

Cancel Back Upload & Create

Create a Custom Audience

1

2

3

4

Add Customer ListEdit Data MappingHashed Upload & CreationNext Steps

Your audience data was uploaded

1 row uploaded (100%)

It may take a few minutes for us to finish matching your customers to people on Facebook. We'll notify you when your audience is ready to use. You can also check the status in [Audience Manager](#).

Next steps

Create a lookalike audience

Expand your reach by creating an audience of people similar the customers you already care about.

Create an ad

Start building an ad right now to target your new audience.

Done

Create Lookalike Audience

Now it’s time to build a lookalike audience. A lookalike audience is another group of people that are similar to your existing customers, so you can hope to have a higher chance of success with these potential customers.

Create a Lookalike Audience

Find new people on Facebook who are similar to your existing audiences. [Learn more.](#)

Source

Chipper Test List

Location

Search for countries or regions to target

Browse

Audience Size

012345678910

% of countries

Audience size ranges from 1% to 10% of the total population in the countries you choose, with 1% being those who most closely match your source.

Show Advanced Options

Cancel

Create Audience

Step 6: Build Your Ad Campaign

You have thought through your strategy, budgets, placements and have built out your audience or lookalike, so all that is left is to build out the actual ad. To keep it simple, we will focus on building campaigns with **“Quick Creation”** in FB.

The screenshot shows the Facebook 'Quick Creation' interface for setting up a new ad campaign. The interface is divided into several sections with dropdown menus and buttons. The 'Campaign Name' field contains 'Chipper Clearbrain Test 1'. The 'Buying Type' is set to 'Auction'. The 'Campaign Objective' dropdown is open, showing a list of objectives: Awareness (Brand awareness, Reach), Consideration (Traffic, App installs, Video views, Lead generation, Post engagement), Page likes (selected with a checkmark), Event responses, and Messages. The 'Conversion' section shows 'Conversions', 'Catalog sales', and 'Store visits'. The 'Ad Set Name' and 'Ad Name' fields are empty. The 'Split Test' button is disabled. The 'Create New Campaign', 'Create New Ad Set', and 'Create New Ad' buttons are visible. The 'Save to Draft' button is at the bottom right. The status bar at the bottom indicates 'Creating 1 campaign, 1 ad set and 1 ad'.

Quick Creation Switch to Guided Creation

Create New Campaign ▼

Campaign Name: Chipper Clearbrain Test 1

Buying Type: Auction ⓘ ▼

Campaign Objective: Page likes ▼

Split Test ⓘ

Create New Ad Set ▼

Ad Set Name

Create New Ad ▼

Ad Name

Creating 1 campaign, 1 ad set and 1 ad

Cancel Save to Draft

Awareness

- Brand awareness
- Reach

Consideration

- Traffic
- App installs
- Video views
- Lead generation
- Post engagement

✓ **Page likes**

- Event responses
- Messages

Conversion

- Conversions
- Catalog sales
- Store visits

Keep in mind, if you're targeting separate audiences with different characteristics, you'll need an individual ad set for each.

Have a consistent naming convention to keep everything organized. For instance:

- Create New Campaign: Page Name/ Item Promoted/ Objective
- Create New Ad Set: Audience Targeted/ Placement/Optimization/ Other Variations

- Create New Ad: Post Title/ Copy Details/ Imagery Details

The good news about this section is you already did all the **“thinkin”**, so it is like taking a test with all the answers. When you are building the ad, you will see a preview of what it will look like around the different placements.

Now it's time to select your creative. Here are Facebook's image specifications:

- Recommended image size: 1200 x 444 pixels
- Recommended image ratio: 8:3
- To maximize ad delivery, use an image that contains little or no overlaid text.

For each variation you have, you will need to create a separate ad. So if you want to test three images and use the same text, then you will need to make three ads.

Creative

☒ Image ☐ Video / Slideshow

Select Image

IMAGE SPECIFICATIONS

- Recommended image size: **1200 x 444 pixels**
- Recommended image ratio: **8:3**
- To maximize ad delivery, use an image that contains **little or no overlaid text**. [Learn more](#).

For questions and more information, see the [Facebook Ad Guidelines](#).

Text

Enter text that clearly tells people about what you're promoting

Headline for Right Column (optional) ⓘ

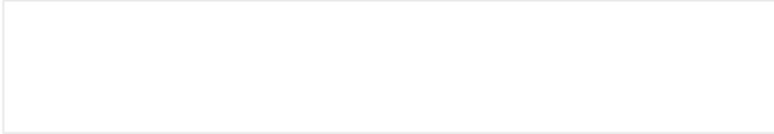
Landing View ⓘ

Default ▼

You won't need to worry about the tracking section if you have the pixel in place on your website.

Tracking

View Tags (optional) ⓘ



Conversion Tracking

Select one or more options for conversion tracking. You'll see the results in Ads Manager along with ad performance data.



Facebook Pixel ⓘ

Step 7: Publish!

Congrats! You've just published your first FB ad campaign!

Step 8: Test, Expand, Scale & Refine

Once you have your Facebook Ad campaign in the market for a full week or so, start looking at testing. When testing, make sure to limit the variables (*ideally it would be one change*) to make sure you can measure the impact of that change. Another thing you can try is testing a few different variations with drastically different designs to get some quick and significant results.

As you begin to get the hang of FB ad campaigns, continue to test your campaigns, audiences, geographies and more. Over time, you'll figure out the right formulas for a successful campaign, and can then scale accordingly.

2.3

Creating Automated Emails Worth Opening

Heather Watkins

*CEO of Better Impact Marketing, and formerly
Senior Director of Marketing at Optimizely*

There seems to be an endless amount of articles on the internet about email marketing automation, offering advice like “10 Tips for Crafting the Perfect Email Campaign” or “6 Common Email Automation Mistakes to Avoid”. But combing through these articles to find tactical tips for how to improve your email campaigns or, even to get some simple inspiration, can be absolutely exhausting. I don’t have a lot of free time to review all the new reports on “Email best practices and trends for Q3”, and I’m sure you don’t either.

Luckily, after working at a marketing automation company and running email campaigns for lots of clients across the tech sector, I’ve racked up a closet full of the juiciest tips in email marketing. Here is my distilled version just for you.

Strategy: Basic Email Engagement

Before you can go forth and write awesome emails, you need to know the basics of email etiquette and engagement. While some of these seem like no brainers, you’d be surprised how little people are actually putting these tactics into practice in their email campaigns.

Tactic: Make sure your email adds value for your reader

In other words, don't send thoughtless content. When you send people emails that only toot your own horn, you end up with an unhappy reader who will end up ignoring your emails. And rightfully so. The average consumer receives [125](#) marketing emails a day. With that level of competition, you aren't going to stand out by always raving about yourself or by acting like a cheap car salesman. Every email you put your name on should add value for whoever you send it to.

Questions you should ask before you press that shiny “send” button:

- How is this amazing <tip/ offer/ new product/ factoid> going to create value for my reader?
- How is this going to help them do their jobs better or make their lives better?
- Is the design clean, clear and interesting?

Tactic: Use a real employee's name for the email address.

People buy from people. Just look at our new billionaire Kylie Jenner's Instagram, or all of our Facebook friends who are selling Rodan and Fields. People are looking for a friendly face, and info@Yourcompany.com is impersonal and just not going to cut it. Instead, send emails from someone at your company who will be a consistent face, not someone who is changing roles every few months. Be being consistent, you will make your readers more comfortable and they'll be more likely to open your emails.

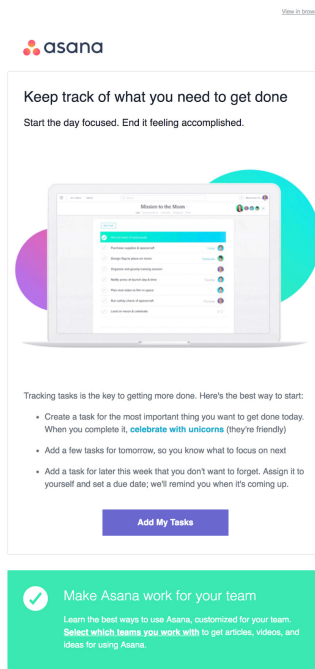
Tactic: Introduce yourself through a welcome series.

Just because someone trusted you enough to give you their email does not mean they are head over heels for your product or service. Approach new readers in your database like you're dating, and getting to know each other. Don't assume you've already made it down the aisle.

A perfect way to do this is a welcome email series. Share facts and tips that help them get to know you a little better. You'd be surprised how little people actually do this. A research report from [Iterable found](#) that only 19% of subscription companies in their sample sent a welcome series, and 32% didn't send out any welcome email at all. Putting in effort into a welcome series will set you apart.

Here are some ideas to bring this to life:

- Give easy steps with what they can do with your brand. [Kickstarter](#) does a great job of this.
- Give them a credit to share if they share with their friends. Check out this campaign by [Outdoor Voices](#).
- Deep dive into one aspect of your product that provides an easy next step to take. Ensure that whatever you're asking them to do is high value and will help create stickiness. Look to [Asana](#) for inspiration.



This is email 1 of 4 in our Getting Started Series.
You are signed up for this email as [taylor@limesdavis.com](#). Manage email preferences
1525 Bryant Street, San Francisco, CA 94103



Tactic: Provide multiple price points.

If the goal of your email is to get readers to buy something, then it's best to give them one higher priced option and one lower priced option to compare it to. More than likely, they'll pick the one you wanted them to – the middle one. Why is that? In [Predictably Irrational](#), Dan Ariely talks about how our brains are wired with the desire to be rational. By having readers compare the different prices in context, their brains try to make a **“rational”** choice by choosing the option that isn't too expensive but is still valuable.

Strategy: Think Big to Stand Out

We're incredibly lucky. We live in a time where consumers embrace brands that leverage creativity and innovation to engage with them. And now is your time to shine! Unleash your creativity and delight your readers with the tactics outlined below.

Tactic: Make an exclusive new original content series.

Readers love feeling like they are a part of something by being part of your mailing list. They especially love being part of the **“in”** crowd – the crowd that gets exclusive access to new content. This is why creating an exclusive new original content series is a great way to make you stand out.

For example, the [New York Times](#) started a four week series where readers get to ask famous fitness experts their questions.

The New York Times

SUBSCRIBER EXCLUSIVE

You ask. Experts answer.

Have questions about stretching? Intervals? Cool downs? Run them by our fitness pros.

In this four-week Q&A series, Times journalists are teaming up with leaders in the world of fitness to answer questions from subscribers like you — with proven, personalized strategies and carefully researched advice to make the most of your exercise routine.

This week: Running



Joining us

Robin Arzón

Robin Arzón, certified running coach, sought-after personal trainer, fitness advocate and author, is ready to answer your questions. Go.

ASK NOW

Taking questions until Thursday, August 16, Noon E.T.

Photograph by Celeste Slioman for The New York Times

Read last week's answers on yoga.

Clip in. Next week's topic is indoor cycling.

This email was sent to heather.s.walker@gmail.com

Ascent Labs | Hello Center

Attn: Customer Service, P.O. Box 8041, Davenport, IA 52808-8041

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The New York Times sends their readers through exclusive and engaging content.

Giving readers the opportunity to engage with experts they may not otherwise get a chance to is of huge value to them. Take, for example, the [Quartz Obsessions](#) newsletter. Every newsletter takes a deep dive into a variety of interesting topics, like pandas and olive oil, and provides readers with otherwise hard to find information.

Before you get started, do a bit of research and find out what your readers care about. Then, put your unique spin on it.

Tactic: Run a cohesive theme through your newsletter.

Instead of just blasting a random digest, turn your newsletter into something meaningful by centering it around a theme that your readers can come to expect. If you take your newsletter seriously, your readers will too.

For example, [Exygy](#), a boutique design and development studio, focuses their entire newsletter on their core mission – building healthy and resilient communities. Another fantastic example is [What the Elle](#). Curated by Ellevest, an investing platform, What the Elle is loaded with humor, financial facts, and helpful tips for women. The key here is that it feels genuine, heartfelt and purposeful, and not just like any other boring blast email.

Tactic: Tailor your emails.

Personalization is no longer optional – readers have come to expect it. They expect companies to know them well enough to send them things that are tailored to their wants and needs, instead of lumping them into a blast email that doesn't make sense for their persona. Failing to tailor your emails can leave your readers feeling like you don't care about them.

Nowadays, marketers have the tools to easily target via geography, past purchases, and web and email activity. Nearly every email service provider or marketing automation tool has some sort of tailoring capabilities. Now go on – think a little harder about tailoring, even a little, each email you send. For some inspiration, here's an example of how [Carnival](#) thinks about personalization. The same email series may have over 1300 versions sometimes, depending on the cruiser's itinerary and whether forecast!

Tactic: Trigger emails for interesting activities or events that will make your reader smile.

It's important to send your readers emails that also aren't too salesy – for example, by celebrating certain milestones the reader has achieved by using your product or service. Peloton, an exercise bike that live streams classes, does an awesome job of this. They

send a super personalized and socially-optimized [anniversary](#) email with important milestone data, to make their readers feel accomplished. They also send a [Pride](#) celebration email that is sure to make the reader smile.

Tactic: Make your emails interactive.

Delight and surprise your reader by investing in some fun and beautiful designs for your emails. For example, check out this clickable email carousel like [Nest's](#). Or make it really easy to [add items](#) to a shopping cart directly within the email, and go straight to check out. Or what about adding a quiz within the email?

If design is not in the budget right now, you can go over quick and easy wins like adding [hover effects](#) and leveraging gifs and emoticons to your emails. Here's a very visually compelling email from [Harry's](#) leveraging gifs. But beware – while emoticons are proven to improve open rates, they must be used sparingly. See more [tips](#) here.

Tactic: Re-engage or move along.

If you notice people aren't opening or clicking your emails, either reengage or move along, keeping in mind that acquiring a new customer costs five to 25 times more than retaining an existing one. To re-engage dormant readers, trigger special offers or exclusive events to get these people back on board. If that doesn't work, send them a quick questionnaire, asking them if they want to stay on your list. If they answer no, ask why. Take feedback seriously – you'll learn more about your readers wants and than by continuing to send emails to people who don't want to receive it.

The biggest thing holding you back

After reading these tips, you may be thinking to yourself – this is great and all, but I have way more ideas than what I can possible execute on! I also understand that getting sign off is hard, and

sometimes prioritizing time is even harder. Even still, that shouldn't mean that your reader has to suffer.

Let's make a pact. Write one of these ideas down that you want to try, stick it on your computer and make it a personal goal that you're going to try launching it over the next 2 weeks. Don't over analyze, just do it.

Looking for more inspiration? Really Good Emails put together a nice list [here](#).



CHAPTER THREE

PRODUCT

FEATURING INSIGHTS FROM

Wayne Chang — Serial entrepreneur and angel investor. His last company, Crashlytics, was acquired twice -- first by Twitter and then later by Google.

Shanann Klaver Monaghan — Director of Customer Marketing at Looker.

Melissa Tan & Abbie Kouzmanoff — Melissa is a Growth Advisor and former Head of Business Growth at Dropbox. Abbie is a Growth Product Manager at Dropbox.

3.1

Crafting An Unforgettable Onboarding Experience

Wanye Chang

Serial entrepreneur and angel investor. His last company, Crashlytics, was acquired twice -- first by Twitter and then later by Google.

The average app loses 77% of its daily active users within the first 3 days.

The message from users is clear – you have to earn the right to more of their time. Users are simply not willing to give your product another go if they aren't initially impressed, which is why focusing on creating a Minimum Value Product (*MVP*) can lead to lackluster results.

While the goal of the MVP is to get something barely usable out the door and into the market for initial feedback, the Minimum Lovable Product (*MLP*) approach emphasizes the first time user experience as key to reduce churn. In other words, the MLP focuses on making your users fall in love with your product at first interaction.

Let's dig right into the strategies you need to build an unforgettable first-time user experience that will have your users coming back for more.

Strategy: Be intentional when creating your onboarding experience

Although cliché, first impressions of your onboarding experience are critical in user experience design. A user's first interaction with your product offers them a glimpse into what they can expect to experience if they continue to use your product. With only 23% of users sticking around after day 3, it's critical to put in just as much thought and intention into your onboarding experience as you put into your final product. This is why onboarding a new user is a privilege – you have the opportunity to shape the perfect first experience for them.

Follow these tactics in order to create a delightful onboarding flow.

Tactic: The Golden Rule – Ask as little as possible

If there is one thing you remember from this article, let it be this – you should only ask for the information you need in that moment.

Users are new to your product and can become easily overwhelmed if you ask for too much information at once. Just like how this guide is broken down into sections, users need information to be broken down into smaller, digestible steps. By easing your user through the process, you'll increase the likelihood that they complete the onboarding process and, in turn, have a pleasant user experience.

For instance, check out the image on the right. This is Facebook's analytics instructional page for developers. Throwing all this information at once to a user is too much information for them to process and makes for a bad user experience.

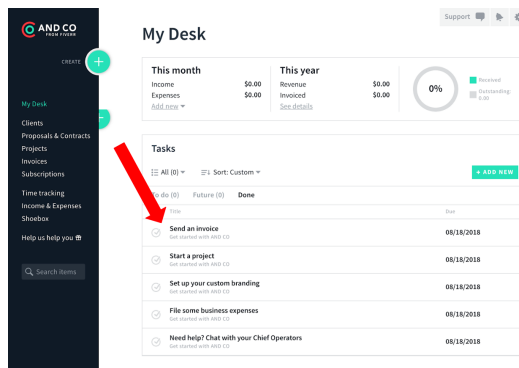


This is too much information!

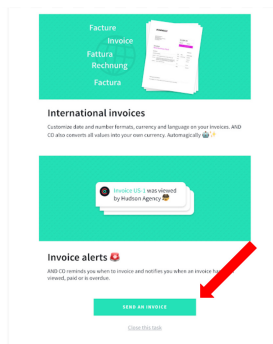
Tactic: Allow your user to experience the product first hand with minimal effort

In order to properly engage your user, you need to make them feel like they are a part of your product's story – or rather, that your product is part of their story. Don't just through them into an empty dashboard or make them wait for something to happen. It's your job to teach them how your product works and show them the bright future that lies ahead if they continue to use your product.

For example, AND CO, an invoice company for freelancers, onboards users by adding tasks to their dashboard. When you click on a task, it explains the feature through short, easily comprehensible text and images, and then has a clear call to action to encourage the user to try it out in the moment.

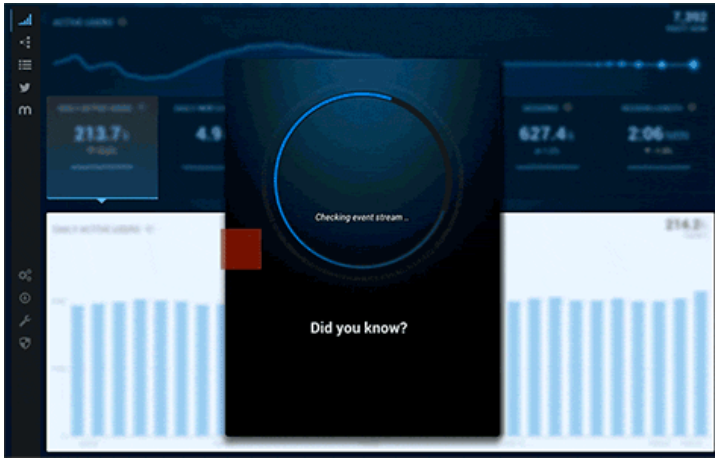


A dashboard with a list of tasks for first time users to complete.



"Send an Invoice" is a clear call to action to engage the user right after they sign up.

We did something similar at Crashlytics. As part of the onboarding and first-time experience, we created a fake, blurred out dashboard filled with charts to show what the product will look like once the user is all set up. We also added a nice personal touch by animating the user's logo on-screen.



Details matter. This animation of the user's logo adds a nice personal touch to the experience.

Strategy: Make time fly

Users are very aware of time—how they spend it, how long things take, and the relationship between the amount of time they've invested and what they've gotten in return. Because new users aren't familiar with your product yet, they will be quick to churn at the smallest infraction, as they are trying to decide as quickly as possible if your product is going to make their life easier and more efficient, or slower and more boring.

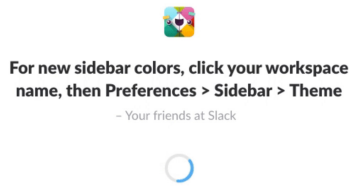
But perception of time is very subjective, and if you pay attention to details, you can have positive influence over it. Boring and often overlooked things like waiting for a dashboard to load are perfect opportunities to delight and to make the user forget that they're waiting.

Here's how to do it...

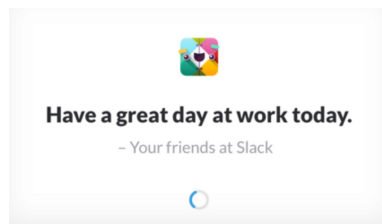
Tactic: Use progress indicators

Progress indicators make a first-time user feel as though time is moving faster than it actually is. To accomplish this, embed within your product:

- **Tips for the product:** When a new user first enters the product, it can be extremely helpful to give them indicators on where things are and how it works. But this can also be a tactic for continuously keeping them engaged as they continue to use the product over time (*as long as it's done strategically and doesn't become an annoyance*). Slack adds tips to their load screen.



- **“Did You Know?”:** Loading screens are an excellent place to put quick, interesting facts relevant to the product or its use case scenarios.
- **Quotes:** This can be a great way to *“humanize”* your interface. Add quirky quotes and friendly messages to take your mind off the fact that you’re waiting for the platform to load.



- **Animations:** [Loading animations](#), especially, can help a user feel as though they’re witnessing something creative or unique unfold right in front of them—instead of feeling like their time is being wasted.
- **Follow-up sequences:** Even when your user is away from your product, it is still an opportunity to delight. For example, you can

send your users beautifully designed emails with impromptu updates about their accomplishments relevant to your product. For example, ***“TL;DR—your app was 98% crash free this week”***. This positive reinforcement makes them feel great in the moment, and gives them even more reason to come back and continue using your product.

Tactic: Write friendly copy

At a psychological level, users expect the platforms they use to also talk like humans – even when they aren’t. And when users are confronted with a reminder that they are dealing with an unfeeling computer, the consequence is usually a loss of patience and churn. Let’s explore the power of copy, starting with a standard 404 Error:

HTTP Error 404

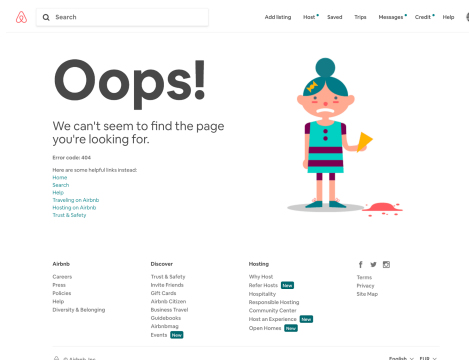
404 Not Found

The Web server cannot find the file or script you asked for.
Please check the URL to ensure that the path is correct.

Please contact the server's administrator if this problem persists.

Example #1 Standard 404 Error.

Copy can affect a user’s emotional state. Not only does this first example feel impersonal and mechanical, it leaves a lot of questions unanswered. The user may think to themselves, ***“What is a 404 Error?”*** and ***“Where do I find the server’s administrator?”*** Overall, it fails to provide a clear path towards resolution. Now, compare that to this Airbnb error page:



Example #2: Airbnb

In sharp contrast, Airbnb's 404 error page is much friendlier. The character on the right acts like an acknowledgement of the frustration the user may be feeling and the copy on the left provides a clear path for what the user should do next.

Most people would agree that Airbnb's error message is less jarring than the first 404 error example. When writing your copy, ensure that your copy is friendly, especially when things go wrong. It will lessen the impact of any negative interaction, make the user feel more engaged and more likely to forgive.

Strategy: How to Handle Multiple Users on the Same Login

If you've invested time into creating a lovable, first-time user experience, then your users are going to tell someone else about it, and that person will try it out and then tell someone else, and so on. But what if multiple users from the same team use the same login? How do you make sure that all the users get the full, unforgettable first-time user experience, and then proceed to become promoters of your product?

The answer lies in creating a user experience that works into your users' natural daily rhythm

Tactic: Do user research

In order to make your product ***“sticky”***, you need to find out how your product fits into your ideal user's day. How are they currently using your product? Where are the opportunities to encourage individual account creation?

For example, when Crashlytics encountered this problem, we decided to find out about our user's natural workflow. We discovered that, as part of their daily routine, developers would check in their code at least once per day.

We took this insight and created a user experience where, as soon as user #2 of a company downloaded or synced up to the latest code tied to their company's app, a pop-up would appear that had the profile photo of the first developer, and a message that said, ***"Hey, [Dev #1] needs to verify you're on their team. Please type in your email address."***

Through this tactic, we were able to get all the developers on a team to create accounts, and follow the original, delightful onboarding flow. And the result? A lot of word-of-mouth promotion on Twitter from happy users —



Parting words

The first time user experience is as key to your product's success as any feature of your product, if not even more important since it is the very first feature your users will interact with.

While this user-centric approach requires more resources in order to pull off successfully, it pays off in huge dividends. Using this approach, Crashlytics was able to rank #1 in mobile performance within a year of launch. In fact, we had more usage than the platforms sitting at #2 through #6 — combined.

Because when you focus on making something lovable, the product speaks for itself.

3.2

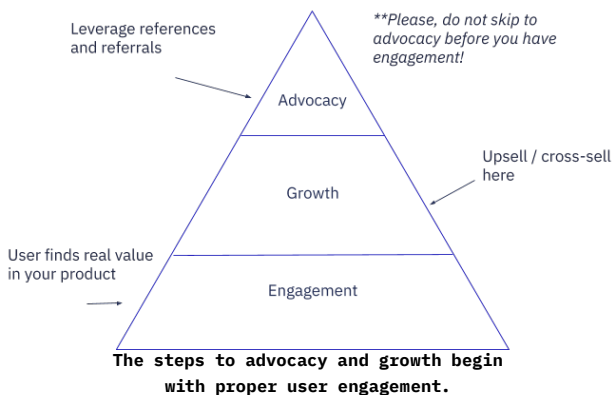
Leverage In-Product Messaging To Drive Engagement

Shanann Klaver Monaghan

Director of Customer Marketing at Looker.

Growth Marketing doesn't stop once you acquire a customer. In fact, current users are the most overlooked and untapped gold mines of growth. Because here's the simple truth: [engaged users spend more money](#).

The good news is that by driving user engagement, you'll open up opportunities to upsell, cross-sell, and even more importantly – you'll be building a solid group of advocates.



But before your users can go shouting off the rooftop – or off the pyramid, in this case – about how your product changed their life in x, y and z ways, you first have to focus on building a solid foundation through user engagement. In essence, you have to put effort into making sure that your user finds real value in your product – or they simply won't have a reason to climb to the top of the pyramid.

That being said, you need to take an authentic approach to how you engage with and grow your user base. In-product messaging is one of my favorite ways.

Here are my top three tactics for engaging with users in-product:

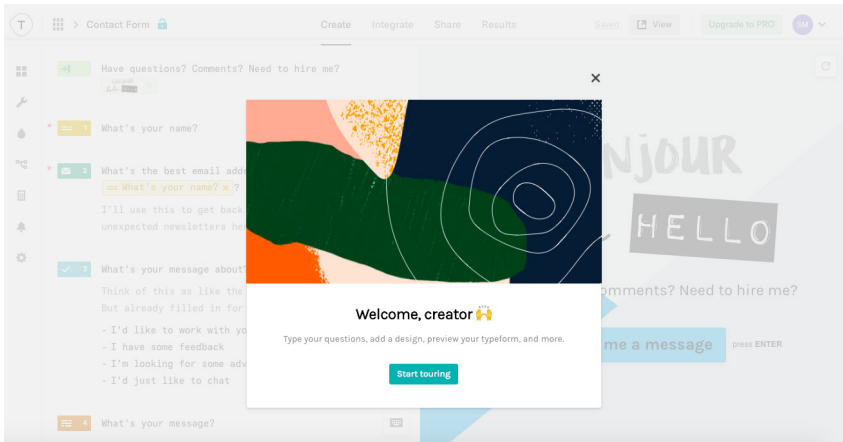
Tactic: Guide your user to your #1 value

Every business should be able to answer this question, ***“When our user does X, they get value from our product”***. In other words, it's crucial that you have a solid understanding of the value that your product brings to your users, and that your users have this X factor moment [during onboarding](#) (*which may be the first session or first 30 days, depending on the product*).

Often, the hard part is figuring out what your X factor moment is. This may require some research and testing, but, once you've got that locked in, you have a clear strategy for launching in-product messaging: point customers to your number 1 value. In other words, don't expect your customer to figure out the value of your product all by themselves. Showcase your value, front and center, during onboarding.

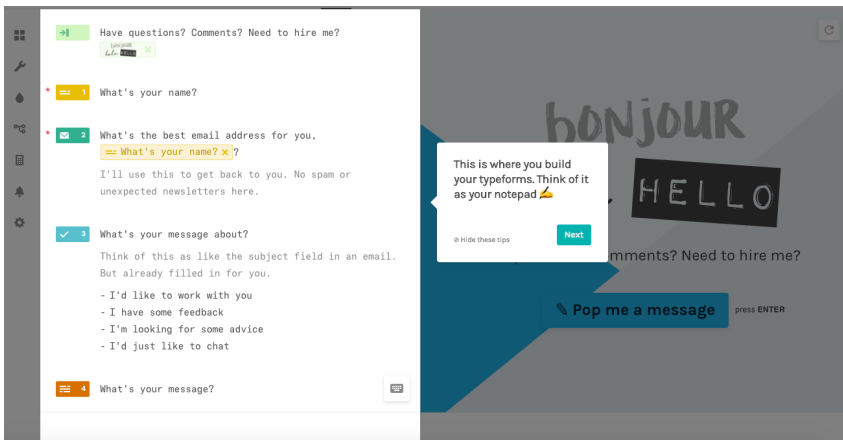
For example, [Typeform](#) encourages users to build, save and share their first form through a series of getting started guides.

Take their welcome message:



They keep their introduction brief but it packs a punch. First, they call their user a **“creator”**, which can make the user feel empowered, and then they list a few things that will be covered on the tour. Namely, that they’ll be able to create and preview their first form.

Now, check out step 1 of building a Typeform:



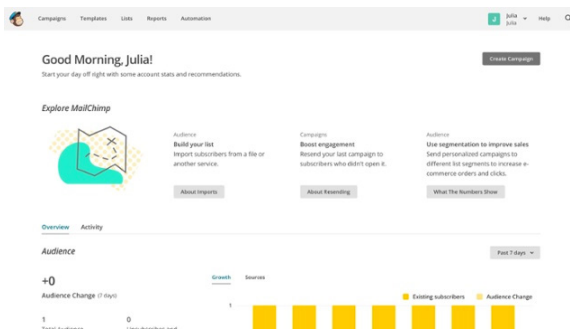
Then, they guide the user by using thoughtful and friendly copy. Users immediately get a sense of what to expect from the product, and what the value is – the ability to create beautiful yet complex forms in a simplified manner.

Tactic: Show the right message, at the right time

One of the best parts of in-product messaging is that you can engage with your customer exactly when they are using your product. This also means you have a huge opportunity to personalize the content customers see.

Gartner estimates that ***“by 2018, organizations that have fully invested in all types of online personalization will outsell companies that have not by more than 30%.”*** (Source: [Brand Relevance Under Fire, Automation on the Rise](#))

With in-product messaging, you can identify key behavior triggers and target the right message, at the right time, to the right user. This is a huge opportunity to get creative and show your user that you care!



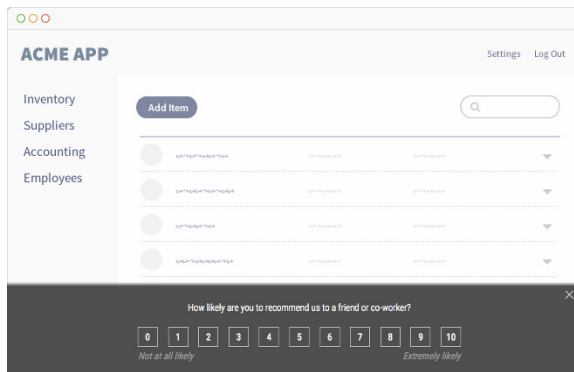
For example, [MailChimp](#) personalizes their dashboard for returning customers. Users see a friendly greeting, based on their time zone and first name every time they log back into the product.

Tactic: Listen and close the feedback loop

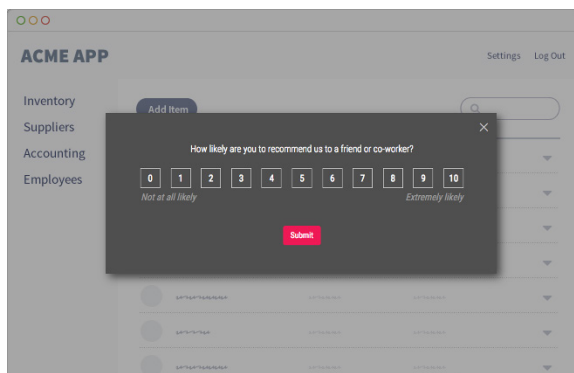
Engaging with your customer doesn't just mean ***“talking”***. It's essential to close the loop by listening, collecting feedback and acting on that feedback. Delivering surveys in-app ensures that you

are asking for feedback when your product is top of mind for the user. In fact, companies who integrate their feedback surveys into their product see higher response rates than if they were to send a feedback email. Even more so, asking for feedback upfront can also increase response rates.

[Pendo](#) is a great example of this. They tested an [NPS Lightbox vs NPS Banner](#) and saw a 73% increased engagement with the lightbox.



The NPS banner was no where near as successful as the lightbox version.



This lightbox NPS survey saw a 73% increase in engagement.

In summary, engaging with your users through in-product messaging not only opens up more opportunities for growth – it's the basis for creating a solid group of advocates. While it may seem overwhelming to get started with in-product messaging, applying even just one of these tactics is a great start.

3.3

How To Monetize A Freemium Business

Melissa Tan & Abbie Kouzmanoff

Melissa is a Growth Advisor and former Head of Business Growth at Dropbox. Abbie is a Growth Product Manager at Dropbox.

Freemium has become a popular business model with Dropbox, Spotify, Slack, and the like demonstrating that you can build meaningful businesses through a freemium funnel vs. traditional marketing and sales channels. But for every successful freemium business, there are hundreds of companies that have tried freemium but failed. For some of these companies, the product virality and user adoption were there; the point of failure was in monetizing the free user base at scale.

Here we'll be sharing a step-by-step guide for monetizing your freemium business – covering user segmentation and targeting, monetization campaign set-up and best practices, and model optimization. Now let's get started!

Step 0: Plan your monetization model

Before building your monetization campaigns, you need to map out your overall strategy. Since the focus of this article is on monetizing an existing freemium business, we won't cover model

design, but are noting a few key elements that need to be figured out before you build your campaigns:

Paywalls

- What features are free vs. paid?
- What is your pricing model? Will users upgrade to various paid SKUs or will they pay for feature-based add-ons (*e.g., space used, number of messages permitted*), or a combination of both?

User segmentation

- What are your user segments?
- How does each segment use your product?
- Which segments map to which paid offerings?

Monetization lifecycle and funnel

- What is the ideal lifecycle from free sign-up to activation to paid?
- If you have multiple paid offerings, how do you want users to flow between them?

The key here is to enable users to experience enough ‘magic’ in the free version to see the value in upgrading, but not too much so they don’t feel the need to upgrade at all.

Step 1: Targeting and segmentation

Once you have a monetization framework in place, you’re ready to build your upgrade triggers and campaigns! The ultimate goal is to create personalized, differentiated campaigns for your various user segments. For example, a free user that is only using Dropbox to

back up photos should get targeted to upgrade to the individual plan. Whereas a group of free users sharing work files should get targeted to upgrade to the business plan.

The last thing you want to do is to try to upsell users for a use case that is irrelevant to them. This creates user fatigue and makes the product feel spammy - both of which lead to user churn.

In order to get to this level of specificity, you will need to:

- 1. score and segment your users**
- 2. create the ability to serve targeted messages to these users in-product**

Score and segment your users

To build targeted user campaigns, you will need to create a rubric for how you will identify your various user segments. Depending on your product, the scoring could be based on product actions (*e.g., for Dropbox, sharing vs. backup*) or user/company attributes (*e.g., corporate domain, SMB vs. Enterprise*). Scoring can be done through a combination of user research and from analyzing data to see which actions and attributes are correlated with upsell to your paid products.

Keep in mind that your user segments may not be mutually exclusive. Some users will fall into multiple user segments and you will need to create a hierarchy for your campaigns and user segments.

Build upsell triggers in-product based on your user segmentation

The most successful monetization campaigns for freemium companies are run contextually in-product. For example, let's say users at the same company are exchanging messages on Slack. Sending a notification to upgrade to a paid plan while they're using the app and experiencing its value is more likely to get higher click-thru than an email sent to them while they're in the middle of

another workflow, not thinking about the app. In order to run these campaigns, you'll need to build the ability to do the targeting and segmentation in your app.

Ideally, this is built in an automated fashion so that you have multiple ***“always on”*** campaigns targeted at different user segments. These should run on an ongoing basis with populations being updated real-time vs. setting up one-off campaigns.

Step 2: Set up your campaigns

Now that you've got your segments selected and your infrastructure in place, let's get going! There are countless ways to reach users along the free to paid customer journey. We'll discuss a few of our favorites.

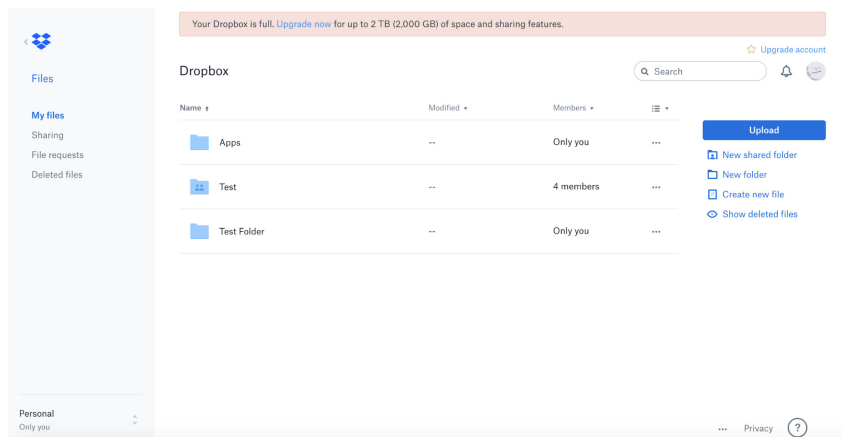
Always on internal ads and banners

One of the most straightforward ways to message your users is through an ***“always on”*** internal ad for your paid products. These placements are important because they raise awareness about your premium offerings and provide users with a reliable way of upgrading. For example, if a user dismisses a contextual upgrade prompt but later changes their mind, these banners provide an easy route back to your upgrade path once they are ready.

To make this most effective, locate the spots in your product that will get the most eyeballs. Ensure your ads will not block users from using your product effectively, but will also not be easy to miss. For example, LinkedIn promotes a ***“Free Upgrade to Premium”*** button that is nonintrusive but always visible as the user navigates the product.



Ideally, the ads should be based on segmentation so that they speak to the user's specific needs and thus lead to higher engagement. For example, Dropbox surfaces a prominent banner at the top of its web app once a user has used up their available space quota. This banner remains until the user either upgrades or removes content from their Dropbox account.



It is ok, however, if these always on upgrade ads are less targeted than your other upsells. In the case that your segmentation does not successfully capture all the right users, you're providing an upgrade path for those that fall through the cracks and are driving their paid product awareness. For these less targeted ads, be even more cautious that you choose a nonintrusive placement in your product.

Contextual upgrade messaging on paid features

Now that you have your **"always on"** banners in place, let's get more targeted. An effective way to upsell users is to educate them on the improved functionality they will get for a feature they are already using. For example, a user viewing the LinkedIn **"Jobs"** page is told they could be receiving more targeted content. A user setting folder permissions on Dropbox is educated about the additional permissions available on the Business plan.

Based on your Profile and Career interests

Any job title · Any location · Any industry · 0 to 10,000+ employees ... [Update Career interests](#)

The image shows a grid of job recommendations. Each card includes a company logo, job title, location, and a call to action. The cards are:

- LinkedIn:** Product Manager, LinkedIn Learning. San Francisco, CA, US. 6 connections. 3 months ago. Easy Apply.
- Gliffy:** Senior Product Manager. Gliffy. San Francisco, CA, US. 1 company alum. 3 days ago. Easy Apply.
- PREMIUM:** See jobs where you'd be a top applicant. Get an edge on the competition. Upgrade for Free.
- MasterClass:** Product Manager. MasterClass. San Francisco, CA, US. 1 connection. 2 days ago.
- Fanatics:** Product Manager. Fanatics, Inc. San Mateo, CA, US. 1 alum. 3 weeks ago.
- Twitter:** Senior Product Manager - Onboarding. Twitter. San Francisco, CA, US. 7 company alumni. 2 weeks ago. Easy Apply.
- Are these jobs right for you?:** We'll use your feedback to improve future recommendations.
- SoFi:** Product Analyst. SoFi. San Francisco, CA, US. 3 alumni. 4 weeks ago.

The image shows a screenshot of a Dropbox interface. A dialog box titled "Test folder 2" settings is open. The dialog box has three sections:

- Did you know Dropbox Business lets you limit sharing permissions on your folders?** (Learn more)
- Allow links to be shared with people outside of this folder?** (Yes is selected)
- Who can manage access to this folder?** (People with edit permissions is selected)

At the bottom, there are "Cancel" and "Save" buttons. The "Save" button is highlighted.

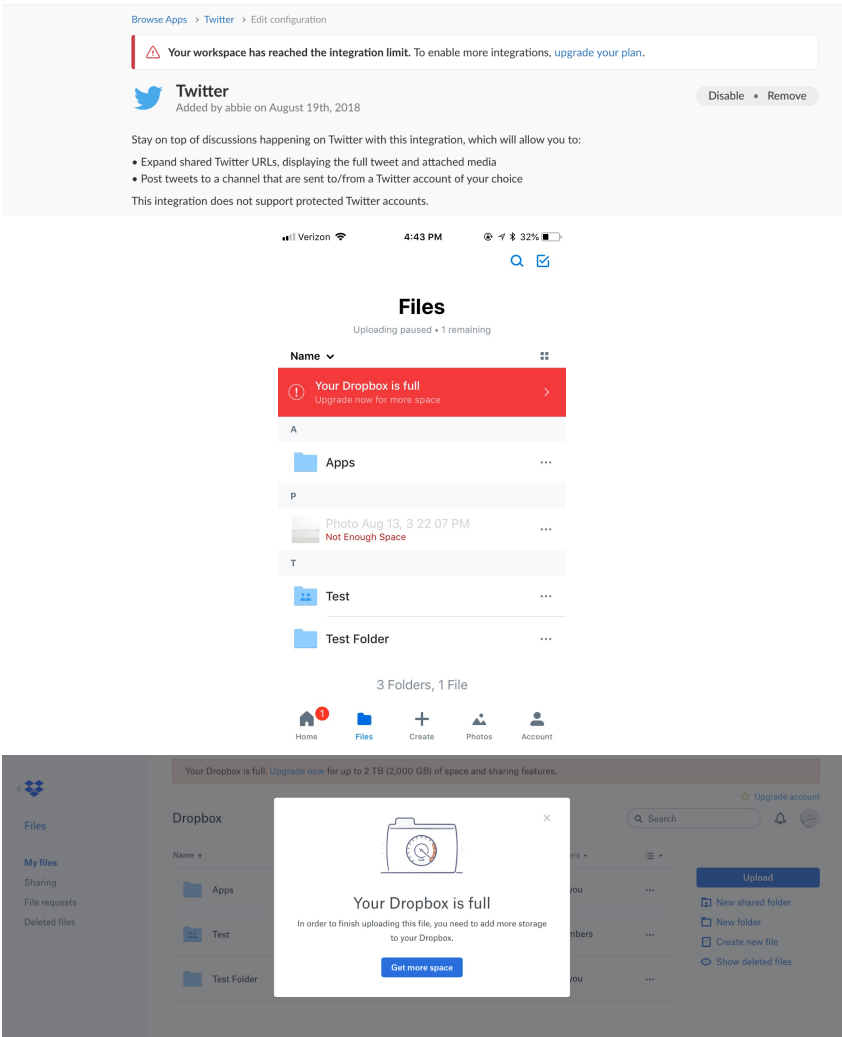
These contextual upsells are important because they target users where they are already finding value in your product. The goal here is to inform them about how your paid features could help them accomplish their goals even more effectively.

Paywalls

In addition to contextual upsell messaging, you will also want to consider blocking the usage of certain features until a user upgrades.

For example, Slack offers up to 10 free app integrations before a user must upgrade to a paid plan. When a Slack workspace attempts

to add an 11th, they are hit with a warning message that they have reached their limit. Similarly, if a user attempts to add a file when they have already used their space quota on Dropbox, they are informed they need to upgrade to complete the action.

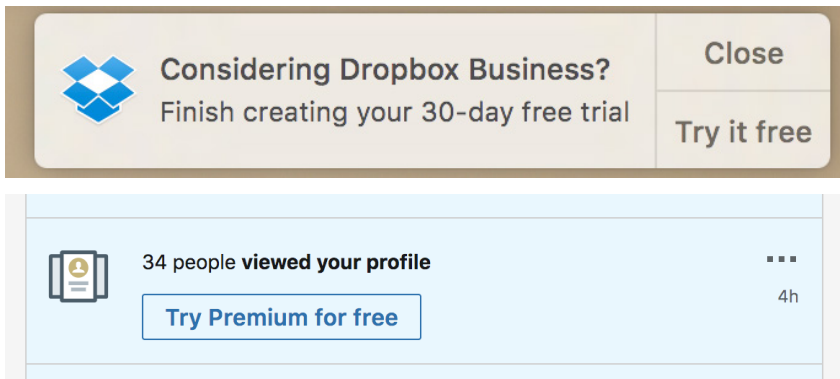


These warnings are important because they place users into an upgrade decision moment. However, use them with care, as users could be turned off from your product if all the value is locked behind a paywall. You want to ensure a user understands the value of completing their action before you block it entirely.

Emails or notifications based on account activity

Now that your users have built awareness around your paid offerings, let's contact them more directly. Consider building automated notifications based on actions that they have previously taken. Avoid emailing your users with no purpose or a generic message — instead, follow up with them with prompts that reference their own past account activity.

For example, Dropbox Business sends users a desktop push notification if they have abandoned the trial sign-up flow. LinkedIn notifies people about profile views to prompt users to upgrade to get more out of this information.



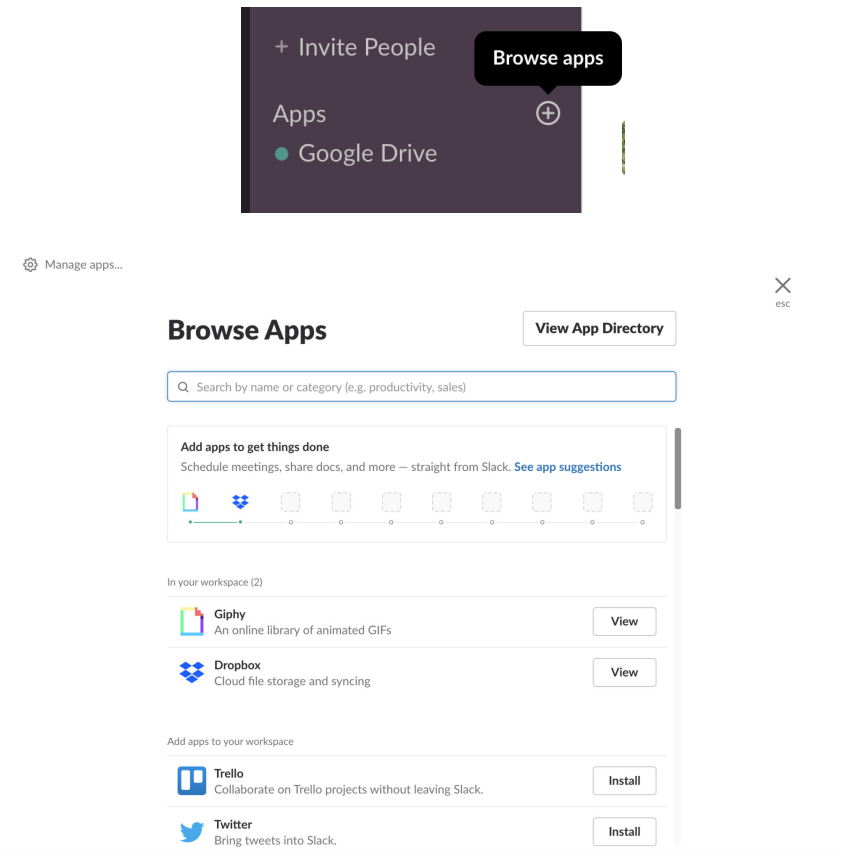
These notifications can reengage users based on an expressed interest or help them discover how they could be better leveraging their accounts.

Don't forget feature engagement


You've now set up a lot of messaging. When creating these campaigns, remember that they don't always need to focus directly on upgrading. You should also build prompts for feature engagement. Push your users toward using your most valuable features such that they ultimately will pay you down the line to continue finding value.

For example, Slack promotes its app integration options on its ***"Browse Apps"*** page, telling users how they can improve their

productivity. The module encourages users to explore the feature and add their favorite apps, while subtly implying that they can only use up to 10.



Before the user has learned the value of Slack app integration, the call to action is to **“Add apps to get things done”** and links to app integration education. However, as the user adds integrations, this language shifts toward monetization, changing to **“Upgrade for unlimited apps.”** At this point, the user has likely found value in the feature and is ready for your contextual upgrade messaging. Finally, when the user attempts to add their 11th integration, they are hit with a timely paywall.

 Manage apps...
ESC

Browse Apps

[View App Directory](#)

Upgrade for unlimited apps

Your team's up and running — they're using 8 apps already. On a paid plan you can add as many as you'd like. [Learn more](#)



In your workspace (8)

**Giphy**

An online library of animated GIFs

[View](#)**Dropbox**

Cloud file storage and syncing

[View](#)**Asana**

Move work forward.

[View](#)

Ultimately, your freemium users will pay you once they have found enough value in your free product and see enough potential in your premium offering to upgrade. Don't forget that these feature education opportunities are key to building out this journey.

Step 3: Test and Iterate

You now have your baseline campaigns set up. The next phase is to iterate and build on what you learn from your first set of campaigns. Experiment with your channels, messaging, timing, and user segments to see which perform best. Keep doing this - you are never fully optimized.

Test your limits

Here you can also get creative. You can determine which users are warm enough for which you can afford to be more aggressive with vs. which ones need more convincing. For example, while an in-product takeover screen might be too intrusive for some, it could resonate with highly qualified users and in fact enable them to discover value in your product sooner. On the other hand, users that

need more convincing can be offered a discount to get them over the edge. Play with and test your boundaries to understand your limits and keep optimizing.

Test your model – go hybrid

Finally, you can also test your freemium model itself and experiment with sending some highly qualified users straight to paid, skipping the free sign-up process altogether. This is where a free trial can replace the free product, allowing you to showcase the full breadth of your product and making it easier for users to auto-convert. In this case, having users go straight to paid provides the convenience of going to the plan most relevant to them straight away vs. having to sign-up for free first.

Closing thoughts

We've now shared our favorite monetization best practices. We're excited to have you try them out and before we leave you to it, we also want to give you some parting advice on overall monetization planning.

Understand how free and paid will play together

It's crucial to understand how your free and paid offerings will complement each other. Although free is often the preceding step before paid, cannibalization between free and paid does happen as does cannibalization between paid products. It's important to map out your user flows and segments so you are sending a consistent message to your users. In some cases, users may get triggered by multiple campaigns and it can get confusing for the user to understand what they should do whether it is completing an action on the free product, starting a free trial, or upgrading directly.

Above all, plan and understand your free-to-paid funnel from the start

It's not uncommon for startups to build a great free product and say they will ***"figure out monetization later on."*** This is a recipe for failure. Having a monetization roadmap and strategy from the get-go is crucial for any freemium business. You should always have a working hypothesis of who your users are, how you will monetize them, and what you want that lifecycle and funnel to look like. Planning and testing a monetization model takes time and your first version doesn't always work. If you wait too long, you risk the chance of confusing your users as chances are, if you don't know what the paid value is, they won't either.

Now with that, we will leave you to it. By strategically planning your customer funnel and following our campaign best practices, you should be well on your way to a successful freemium business. Happy monetizing!



CHAPTER FOUR

TESTING

FEATURING INSIGHTS FROM

Colin Gardiner — Chief Revenue Officer at Outdoorsy.

Khattaab Khan — Web Marketing & Analytics Lead at LinkedIn.

Xing Lin & Greg Klausner —Xing Lin formerly led the Dropbox Business new subscriptions growth team. Greg Klausner leads the Dropbox Business trial onboarding and conversion team.

4.1

The 10 Steps To Launching An AB Test

Colin Gardiner

Chief Revenue Officer at Outdoorsy.

A/B testing, otherwise known as split testing, is a simple yet powerful way to optimize your marketing strategy, product and overall business. True to its name, A/B testing consists of testing two variations (*A and B*) of something on your website, such as CTA button color, landing page design, the copy on your CTA button, and more, for the purpose of discovering which variation, if any, resonates better with your audience.

Why should I A/B Test?

Experimentation is one of the most integral parts of building a product and finding product market fit. By A/B testing iteratively, you can create a constant feedback loop of customer experiences, which you can then use to continuously optimize your business to be a better fit for your customers' needs.

Remember, your greatest asset is time. When you elect to not test, you are losing out on new information about your customers or your market – a huge opportunity cost! However, by testing regularly, you can discover things that are critical to your business, such as finding the most effective marketing campaign – saving you money.

Similarly, designers and product managers can test critical points of the user journey to increase product adoption, and eventually [produce customers that promote for you](#).

As an example, let's say you want to decrease cart abandonment on your ecommerce site. If your site requires users to sign up for an account before checking out (*what we'll consider Variation A*), you might want to consider testing whether adding an option for users to check out as a **"guest"** (*Variation B*) increases your conversion rate. You can still prompt customers to create an account at the end of transaction, but by removing barriers to check out, you can hypothesize that there will be an increase in orders. After you run the test, you can evaluate your data to see if one version performed better than the other. Let's say Variation B performed significantly better – you can then implement that solution and know that it will help you sell more for the time being.

The beautiful thing about A/B testing is that the focus is on progress – not on being correct in your hypothesis.

This is especially useful for uncovering strategies that can be rife with biases, and can ultimately hinder your business.

Setting up your A/B Testing Tech Stack

In this article, we will be focusing on running tests on your own website, but if you also run paid ads, [Facebook](#) and [Adwords](#) have resources to conduct tests on their respective platforms.

For testing on your own website, there are three routes: paid platforms, open source software and server-side solutions. Paid and open source platforms are often out of the box and use JS-based tracking. They are often quick to implement, but one potential drawback is that they often rely heavily on front-end manipulation.

Examples of A/B testing platforms include Google Optimize, Optimizely and VWO.

Server-side solutions come in varying flavors. If this is the route you go, you'll want to pick one to go with your code stack. An upside to going this route is that tracking will be more integrated and native. Even though will give you more control, it's important to keep in mind that you will likely need developer help to implement and operate it.

So, which solution is right for you? To build or to buy?

As a general guideline, early stage companies won't need to pay for a solution as the fidelity of tests won't be as important. Instead, changes will be more sweeping, which will require less precision. However, as your company grows and needs to be more certain of results, you will likely need to move to a A/B testing platform and eventually migrate to a bespoke solution.

Specifically, for companies that require less technical product testing, it is often best to stick with platforms that offer front-end manipulation. This makes it easier to test things like marketing collateral.

For companies that have intricate product experiences requiring logins, payments, search algorithms and more, it is often best to adopt server-side solutions, bespoke or from a platform.

All in all, there is no one size fits all solution. In my experience, the level of technical prowess within a company will probably be the deciding factor.

How to Conduct an A/B Test

Testing in general can easily get complicated, but let's start with the basics. Here, I've boiled down the process to the most essential steps you need to take to conduct your first A/B test.

Step 1: Define a success metric.

The first step to create an A/B test is to think about a metric that is critical to your business' success. For example, if you own a hotel, then **“bookings”** would be an important metric. You may also want to consider testing secondary metrics. For instance, if you are a B2B business, the number of meetings your sales team sets might be an important metric, perhaps second to closed deals. Whatever metric you choose, this will serve as your starting point for figuring out what you will test.

Step 2: Gather data.

Once you've chosen an important metric, it's time to analyze the funnel where that metric can be measured. Look specifically where customers are dropping off. Gather all of this data, and figure out what area may be good to test. Areas with high traffic, like your homepage, are especially great places to analyze, as a test on that page will produce results faster.

As an example, if you are having trouble booking sales meetings, you may want to consider testing the **“Request a demo”** CTA on your homepage, if that is the primary way people book meetings.

Another place you can look to for inspiration is by looking at important segments, like device or browser. Perhaps you find out that conversion rates for your **“Request a demo”** CTA are lower on mobile vs desktop. Why could this be? Sounds like a great place to test!

Step 3: Formulate a hypothesis.

Based on data you've gathered, come up with a hypothesis for what you want to test, what you think will happen when you test it, and why you think this will happen. Some things you can test include copy, layout, CTA, offer and more. Testing is a chance to challenge assumptions, so be bold with your hypothesis.

Here's a general template:

If we change [this], then [this will happen] because [this reason].

Here are some examples of possible hypotheses:

If we change the copy of our CTA from ***"Contact Sales"*** to ***"Schedule a demo"***, then more people will click on the button because ***"Schedule a demo"*** sounds friendlier and is about a customer benefit. It is focused on the customer receiving something (*a demo*), rather than Sales getting something (*an email address*).

If we move our customer validation logos above the fold on our marketing asset, then more people will convert because they will see the logos first and therefore trust us more.

A simple yet very important type of test you can set up is called an existence test. In essence, you test whether the existence of a particular element, say, a secondary CTA, is helping performance. To do so, you direct part of your traffic to a version with the selected element and another version without it. This type of test helps you narrow down what elements are boosting performance, and which ones may be holding your website back.

Here is an example of an existence test hypothesis:

If we remove the customer validation logos, then our conversion rate will drop because people will not trust us.

Step 4: Check your sample size.

Before we can go and test your hypothesis, you need to determine the sample size. It's important to preface this by saying that A/B testing can be done on websites with a small to a large amount of traffic. Nonetheless, in order to determine how long you need to run your test, your test needs to reach a minimum amount of participants. Use this [calculator](#) to find out your sample size.

Step 5: Setup.

Now that you've squared away your minimum sample size and your hypothesis, it's time to set up your test. Set up depends entirely on the A/B testing solution you are using (*see the Setting up for A/B Testing section*).

Step 6: QA, QA, QA!

No A/B test is complete without a thorough quality assurance process. Without QA, you run the risk of running a faulty test, coming up with faulty results and ultimately coming up with false conclusions that can end up having negative consequences on your business. Run through your test multiple times. Have others test it. Try it on different browsers, devices, IP addresses, etc. Your A/B test platform should have all of the necessary staging requirements to QA your test.

Step 7: Launch!

Congratulations! You've launched – and now it's time to monitor your test, but don't try to call the test too early. Even if you reach your minimum sample size, there are a load of factors that may be affecting performance, and the goal is to ride out the seasonality of those effects. In general, 7 days is the minimum amount of days the test should be live, and ideally for two business cycles to capture normal fluctuations.

Step 8: Call the test and analyze

Before you can call a test, it's important to use an [A/B testing statistical significance calculator](#). As a rule, a test that shows a gain with 95% certainty can be declared a winner, although you can go even lower based on your risk tolerance. As noted above, be sure to run your test long enough before checking the statistical significant of the results.

Even so, you should also consider digging deeper and segmenting your test. While it may seem that your hypothesis was wrong, you may discover that one particular demographic greatly favored your proposed variation. If that is so, then perhaps it is worth targeting those customers with that message. Or maybe your test revealed that your experience is not optimized on mobile. Whatever insights it can be provided, I really encourage you to segment your tests.

You also learn a lot from failed or inconclusive tests. Take a look at your assumptions – what may have you gotten wrong, and what can you test in the future? If in the end, your results are tied, you can elect to run more radical tests (*for instance, proposing a whole redesign vs just a button color change*), or even choose to implement one of the variations based on the experience you think would be best for the user.

Regardless of your results, you should always take time to analyze the results. Ask yourself:

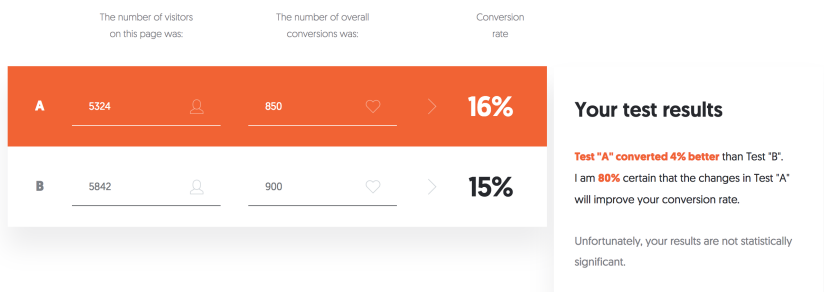
- What did we learn about our users?
- What can we do to improve our processes?

- How will these insights inform future testing?

For example, if this was your hypothesis:

If we move our customer validation logos above the fold on our marketing asset, then more people will convert because they will see the logos first and therefore trust us more.

But your results look like this:



Test "A": validation logos below the fold. Test "B": validation logos above the fold.

Then perhaps you should consider testing further. Perhaps the logos you are using don't resonate with customers? Perhaps your logos aren't prominent enough? There are many ways you can go about it, the important part is reflecting and using all of the information your customers give you to inform further testing.

Step 9: Document

Finally, it's important to thoroughly document your tests, conclusions and analysis, in order to [build a testing culture](#) in your company.

Testing early and often will help you keep up with changes in the market and your customers' needs and attitudes, and can help drive your organization's growth. With this in mind, make it a goal

to always be testing some aspect of your business. You may be surprised by the insights you uncover.

Step 10: Rinse & Repeat!

There is always another test to run. As you analyze and log your results, formulate new hypothesis and repeat steps 1-9 again! Iteration is the key to success.

4.2

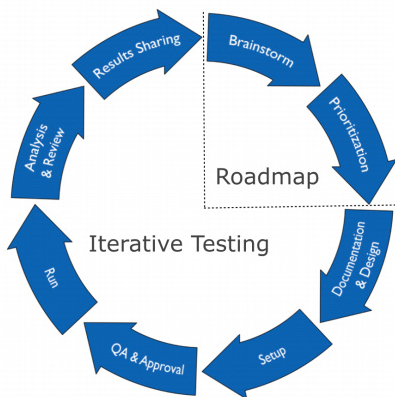
How To Run An Effective Testing Program At Scale

Khattaab Khan

Web Marketing & Analytics Lead at LinkedIn.

In order to create an effective testing program, a defined workflow, coupled with a culture in which people feel empowered, are essential.

In this article, we will go through the 8 phases of the testing cycle and break them down into actionable tactics so you can go forth and build a successful testing program within your organization.



With that, let's dig right in:

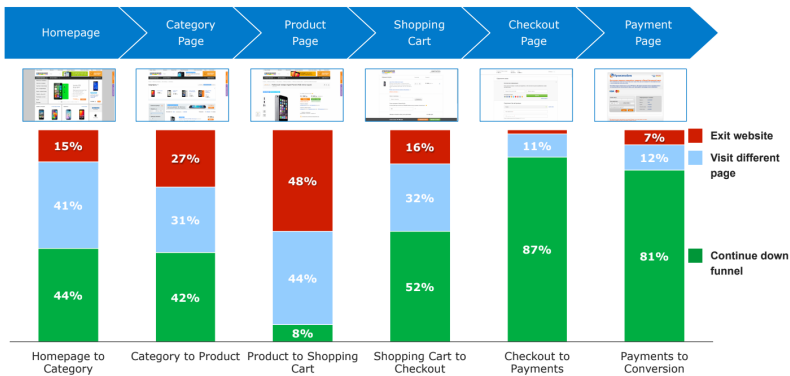
Step 1: Brainstorm

Getting started with testing can seem intimidating. How do I generate test ideas?

In order to get testing ideas, focus on optimization opportunities that matter by evaluating your user paths. Focus testing on problem areas that are drivers of business value.

For instance, if you are an ecommerce site, then you can evaluate the user path from product pages to checkout. Using Google Analytics, Optimizely or another analytics tool, explore your funnel for key drop off and conversion points and document that like the example below.

Evaluate User Path



As you can see from this flow, 48% of users exit the website from the product page. What could be preventing them from adding the product to the cart? Perhaps the product page does not offer enough information, and they go searching for the product elsewhere?

Using insights from exploring your user path, create a list of hypotheses and tests you'd like to run and plug them into a spreadsheet like this:

Test Type	Test Objective	Test Description	Test Hypothesis
Product	Reduce bounce rates	Add videos to product pages	Lack of engaging content gives little reason for the user to stay

In the end, at the heart of generating test ideas is creativity and the willingness to explore beyond the familiar. Don't be afraid to write down all of the **“out there”** ideas that come to mind – you can refine them later in the prioritization phase.

Here are more ideas to consider testing:

- Number of questions in a form
- Call to action button copy
- Landing page design
- Call to action button placement

The next section is about **“reeling it back in”** and narrowing your hypotheses down into viable test ideas.

Step 2: Prioritization

While you may want to test all of your ideas, limited resources obliges you to intelligently prioritize tests. Here's a simple way to get started:

For each test idea, assign a value of low, medium or high for effort and potential impact.

For example:

Test Type	Test Objective	Test Description	Test Hypothesis	Effort	Potential Impact
Product	Reduce bounce rates	Add videos to product pages	Lack of engaging content gives little reason for the user to stay	Medium	High
Community	Increase sign up rates	Test with value propositions / benefits of signing up copy	Users don't have a good reason for signing up	Low	Medium

With this high level overview of all of your tests in hand, you can now assign priority based on your team's capacity and resources available. For example, if your team is really new to testing and perhaps a bit skeptical, you may want to run test with medium to high impact and low effort first. This is to make your team more comfortable with testing and to ensure that your team understands the fundamentals of testing before you dive into more complicated and resource intense tests.

Test Type	Test Objective	Test Description	Test Hypothesis	Effort	Potential Impact	Priority
Product	Reduce bounce rates	Add videos to product pages	Lack of engaging content gives little reason for the user to stay	Medium	High	High
Community	Increase sign up rates	Test with value propositions / benefits of signing up copy	Users don't have a good reason for signing up	Low	Medium	Medium

Advanced Custom Scoring

While the chart above is a great first step, those who want to dive into a more advanced approach to prioritization should consider custom scoring. In advanced custom scoring, you attempt to negate

as much bias as possible by assigning points to each test based on the following criteria:

Rule	0 Points	1 Point
Main Metric	Supports a secondary metric, like click-through-rate or Net Promoter Score	Supports the company's main metric <ul style="list-style-type: none">For example, new bookings
Location	Tests a change located on any other pages	Tests a change to a page central to our main metric <ul style="list-style-type: none">for example, to the results or billing pages
Fold	Moves a change below the fold	Moves a change above the fold
Targeting	Targets a subset of customers (repeat only, new only, top 50 markets, etc)	Targets 100% of customers
New Information	Makes a change to the existing elements (copy, color UI, etc)	Adds new information to a new element or removes an element from the page
Benchmarking	No benchmarking best practice	Borrows from a success on family sites <ul style="list-style-type: none">Expedia.com, Hotels.com, Carrentals.com
Conversion Veins	Applies to one or fewer conversion vein themes	Applies to two or more conversion vein themes
Strategic Topic	Doesn't map to a company-level goal	Supports a strategic company goal
Mobile	No mobile component	Would change an element of the mobile web experience, or encourage an app install
Opaque	No influence on opaque share of business	Potential to increase of opaque share for a line of business <ul style="list-style-type: none">travel industry-specific value metric

After going through this, see which tests have the highest scores and prioritize from there.

Step 3: Documentation & Design

Naturally, when it comes to testing, there may be some hesitation from key stakeholders. However, you can reassure them by emphasizing that any change made for a test is temporary and will be carefully documented before any permanent decisions are made. The effective planning documents are necessary in order to build trust within your organization and hold your team accountable.

Additionally, detailed documentation ensures organizational consistency and helps preserve organizational knowledge when people move on. As your testing program grows and becomes more ingrained into the fabric of your organization, it's important to reflect on the findings of past tests to inform future tests and avoid repeating tests.

Remember to make your documentation publicly available – whether that be as a spreadsheet, knowledge base or through other

means. Keeping people informed will not only make them more invested in fostering a testing culture, but it can also be fun. For example, you can ask people what version they think will win in a test. Adding a little competition makes it more exciting and is also a way to showcase the fact that results are not always what we may think, thereby reinforcing a minimum bias testing culture.

Your document should also include information about the resources you will be using for the test. Work with key managers to budget for designer and developer needs and hours, and ensure that you set aside plenty of time for quality assurance (QA). As a general rule, be detailed as possible so that those outside of the testing team can understand the goals without much context.

Lastly, whatever analytics tool you opt in to use, make sure to keep your documentation secure by saving a copy outside of the testing platform. You don't want to lose years of knowledge if something were to happen to the tool.

Step 4: Setup, QA, RUN

For exact details on how to run a successful A/B test, see Colin Gardiner's "[*The 10 Steps To Launching An AB Test.*](#)"

Process usually differs from test to test but, here are some general guidelines you should follow:

- Use a homegrown tool or a tool like Optimizely in order to set up your test
- Calculate the minimum sample size you need in order to complete the test with [this calculator](#)
- Do not modify any variables during a test

Ensure that experiments work correctly by following a thorough QA process. Make sure to:

- Walk through all the possible visitor flows to ensure that they work as expected.
- Double check that your goals are being tracked
- Properly segment the visitors you are trying to target

After a proper QA process, it's time to launch! Continuously monitor your test and regularly update your team in order to keep the test top of mind.

Step 5: Analytics & Review

Now that the test is done, it's time to analyze the results and get ready to share the results with your team. Analyzing your results correctly is super important. You've worked hard to minimize bias up until this point, and it's important not to jump to conclusions at this point either. At the end of a test, you may be excited to see that Variation B did seemingly better than Variation A, the control. However, looks aren't always what they seem and it's important that your excitement isn't premature. This is where statistical significance come into place.

While on the surface, Variation B may have received more clicks (*or other metric you were testing*), without being statistically significant, it may have just been a fluke. Before coming up with any conclusions, use this free [statistical significance calculator](#). Refer to the A/B testing article to delve deeper into statistical significance.

Analyze performance by segment. For example, look at how they variations performed among certain groups. Can you hypothesize why? This may be a good jumping off point for future tests.

Most importantly, don't forget to add all the info into the original spreadsheet.

Step 6: Results sharing

Hold your team accountable to the strategy that inspired variation design by sharing the results and learnings company-wide. Were your hypothesis confirmed or disproven? Was there anything that surprised you? Be transparent of any hiccups, such as bugs, and how that might have affected the results.

For example, you can use a template like this one to provide a 2 minute overview:

Results Sharing Template

Original Screenshot

Original

Wireframed Variation

+XX% lift in tab clicks

What change did we test?: Description

- Original: Tabs are at top of the page.
- Variation: Tabs are in middle of the page.

Result % (lift/loss)

- +xx lift in (primary goal)

Goals

- Did the tracked goals help validate/invalidate test plan hypothesis?

Conclusions

- What insights were gleaned to inform
 - Future tests
 - UX redesign
 - User personas (results segmentation)

Action items

- Next steps: run live vs. iterate on experiment

When you share your results, you can get your team excited about the process and spread testing culture to other teams.

It's important to remember that testing is an interactive process, it never actually stops. Things can change from one quarter to another, so it's important to retest every so often, especially for tests that were closer.

Many businesses start off by relying on intuition and looking at other companies' successes – but this method will only take you so far. In order to optimize your web presence and outmaneuver your competition, you need to run objective tests on your own site and product, as what worked for one company may not be entirely applicable to your company.

Ultimately, testing is an enablement tool, because you can leverage your findings to focus on goals that directly drive business value. Testing is also incredibly humbling. It forces you to challenge your assumptions – which, more than likely, are barring you from reaching the next level – and ultimately helps improve your funnels. Of course, testing can also be quite fun. Your users may behave in ways that you hadn't predicted, and you'll most likely encounter some surprising results.

4.3

3 Tips For Running Effective Pricing Tests

Xing Lin & Greg Klausner

Xing Lin formerly led the Dropbox Business new subscriptions growth team. Greg Klausner leads the Dropbox Business trial onboarding and conversion team.

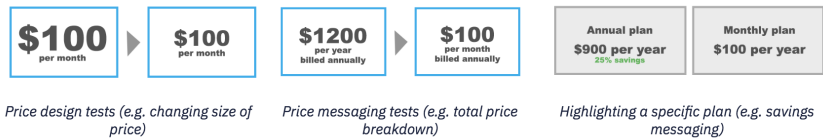
Optimizing your company's pricing strategy can be one of your most powerful growth levers, whether that means adjusting the prices of your offerings or changing how you communicate your pricing packages. However, creating poor user experiences around pricing can cost your company potential customers and erode trust, so it is essential to be careful when refining your strategy.

Common research methods such as surveys and focus groups can be valuable in understanding whether your prices are optimal, but as many growth experts will attest, using A/B testing can be a safe and effective method of identifying customers' pricing preferences and driving revenue gains, provided that you navigate the unique complexity of pricing experiments with a clear understanding of how to maximize results. In this article, we will provide guidance on how to thoughtfully design and analyze pricing tests to ensure you maintain a great user experience while driving monetization.

Tactic: Proactively identify experiment challenges before building

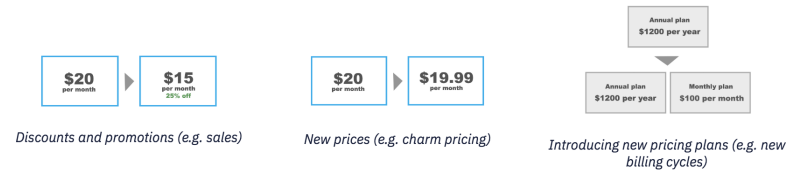
There are many ways you can experiment with pricing, but the choices you make about what type of experiment you run will likely define the level of technical investment and organizational alignment you'll need to arrange. We generally categorize our pricing experiments into two buckets: **“front-end”** and **“full-stack.”**

Front-end experiments



Front-end pricing experiments test changes to the way you message or display prices, and are visual changes as opposed to actual price or plan adjustments. These experiments tend to be relatively easy to build from a technical perspective and require less upfront investment.

Full-stack experiments



Full-stack experiments test changes to the prices and plans of your product. Because they aren't simply visual changes but actual price and plan adjustments, they require significantly more technical investment and long-term planning. As part of your technical scoping, you'll need to ensure that the changes you make to pricing are reflected not only on your website, but also in your product experience (e.g. if you're selling a SaaS product and your product

has a billing summary page), in your internal billing and accounting systems, and in your CRM, among other systems your company may need to keep in mind.

While full-stack experiments require a significantly higher level of investment than front-end experiments, they can also provide immense value to your business. Like any other experiment you're planning, it is important to make an assessment of the revenue your experiment could yield if successful before shying away from making these commitments — big wins can justify big investments!

Considerations across different tax laws and currencies

One challenge of pricing experiments is that as you span different regions and countries, you become subject to different tax laws and currency exchange rates. These stipulations may affect the designs of your experiments and ultimately the success rate. For example, if you are running a test about **“charm pricing”** and change the price of a product from USD \$20 to USD \$19.99, this change coupled with the effects of the currency exchange rate may result in an odd price in other regions (*e.g. AUD \$27.43*). These types of unintentional changes may conflict with your experimental hypotheses and render the results invalid. Therefore, when testing prices, it is important to keep in mind regional tax and currency differences (*on top of cultural differences*) that may affect your tests. Segmenting your audiences for your pricing experiments can help correct for this.

Be careful when charging different prices to customers in the same region

Charging people noticeably different prices for the same product, especially if they are in the same region, can result in a terrible customer experience. While testing something such as rounding \$19.99 to \$20 on webpages may be negligible, testing \$15 versus \$20 is risky. Imagine if people discovered they were being charged more for the same product!

In an effort to determine what people's optimal willingness to pay is, some businesses may bundle price changes with different

product packages, but note that this is not a true a/b test. The important thing to remember is that when it comes to pricing tests, there is a fine line between what is okay to test and what is not worth doing for the sake of maintaining customer loyalty.

Tactic: Design with your users' end-to-end experience in mind

People can have strong reactions to pricing changes (*both positive and negative*), so it's important to take into consideration the entire user experience when running pricing tests. Here are a couple of examples to consider:

Preserve visitors' choices on your website

When your visitors have plan choices they can configure on your website, it is important to make sure that the pricing on all webpages reflect those configurations so as to a) not force visitors to frequently reset their preferences and b) not confuse visitors by showing them irrelevant or different prices. For example, let's say you want to run an experiment that allows users to toggle between monthly or annual billing plans on the homepage of your website. If users choose the monthly option on your homepage, it will be a better experience for them if the website is built in such a way that this choice is preserved across all pages they visit where pricing is displayed.

Maintain pricing consistency across channels

Pricing experiments are often a full-funnel experience — the changes you make in a front-end or full-stack experiment will have effects beyond your web experience (*ex: ad campaigns, receipt emails, in-product billing summaries, subscription renewals*). Consistency across your experiences whenever possible is imperative to maintaining trust among customers. A great experiment hypothesis can be undone by testing conditions that create confusion and distrust

among users, and pricing is a major opportunity to gain or lose that trust. To get the most out of your pricing experiments and keep customers happy, make sure that people in each of your experiment variants are being offered the same prices across all channels before and after purchase.

Keep your Sales and Customer Support teams in the loop

Especially when it comes to pricing, it is essential to keep your Sales and Customer Support teams informed of experiments. Pricing experiments, while powerful levers for your business, can also cause unique reactions from users that require preparation. Sales and Customer Support teams can relay valuable qualitative feedback on the results of your experiment while managing questions and requests from customers.

For example, let's say you're running this front-end experiment where you're changing the pricing display of your annual subscription to reflect the cost per month instead of the full annual cost (*even though both plans when billed annually are the same price*):



This experiment can be great at reducing sticker shock and driving revenue for your business while making customers happy (*and these days it is actually a commonly used form of subscription price messaging*), but some viewers might misinterpret your new messaging to say that this product is billed monthly at this price. They might even completely misread the messaging and think your product only costs \$100 per year!

If your Sales and Customer Support teams are aware of this experiment, they'll be much better equipped to handle calls where customers are looking to buy the \$100 per year subscription that doesn't actually exist. Also, if this confusion results in an increase in refund requests, your support team will be grateful for the

opportunity to prepare in advance for this spike in support tickets, especially if your business has to manually process refunds. Last but not least, working closely with Sales and Customer Support creates a great feedback loop for experiments, which can help drive insights for future experiment iterations.

Tactic: Analyze beyond your standard top of funnel metrics

Analyze your full-funnel

When analyzing the results of your pricing experiment, it is especially important to make sure that you measure the impact beyond initial sign-ups. Experiments that change a user’s perception of the price of your offerings can attract customers with different price sensitivities than before. This can impact their likeliness to refund their purchase, renew their contract, or expand their usage.

Let’s re-visit the front-end experiment we discussed earlier and assume we saw these results:

	Control variable		Test variable	
	\$1200/year		\$100/month	
# of exposures	100,000		100,000	
# of subscriptions	10,000		15,000	
Annualized price	\$	1,200	\$	1,200
Annualized revenue	\$	12,000,000	\$	18,000,000
Difference			+6,000,000	

Seems like a winner, right?

But what if we expand our analysis to include refunds and then we see this:

	Control variable \$1200/year		Test variable \$100/month	
# of exposures	100,000		100,000	
# of subscriptions	10,000		15,000	
Annualized price	\$	1,200	\$	1,200
Annualized revenue	\$	12,000,000	\$	18,000,000
Difference			+6,000,000	
Refund rate	20%		50%	
Post-refund revenue	\$	9,600,000	\$	9,000,000
Difference			-600,000	

Because of enormous refund rates in the test variant, what appeared to be a clear win is now looking more like a potential loss.

In order to give yourself a more complete perspective of the impact an experiment has on revenue, make sure to track your experiment over a longer time horizon in order to detect any changes in upsell or renewal behavior and include those in your impact calculations.

Analyze performance across all of your offerings

In addition to analyzing the the impact of experiments on downstream metrics, it is also important to dig into how they may affect purchases across your billing plans (*i.e., monthly vs. annual subscriptions*) or other offerings. It is often the case that one of your product's biggest competitors is in fact another one of your products. As such, when running an experiment that changes the perception of price on one of your offerings, it is important to measure whether there is an impact on the conversions of other products to ensure that the success you're observing in one line of business isn't cannibalizing others.

Cannibalization isn't necessarily a negative result — if the combined revenue across your products is higher in your test variant than in your control, then that change might be worth keeping if

your goal is to increase revenue. Even better, you can segment the results of your experiment to see whether there are audiences you can target with each of your offerings to help people find the right product or plan, maximizing revenue.

Conclusion

Running pricing experiments can be a powerful growth lever for your company, but like any other experiment, your results can only be as good as the preparation that goes into them. By proactively identifying the technical challenges of your experiments, designing with your end-to-end customer experience in mind, and rigorously analyzing your data throughout your funnel and across your offerings, you can run pricing experiments to drive sustainable growth while maintaining a great customer experience.



CHAPTER FIVE

ANALYSIS

FEATURING INSIGHTS FROM

Alanna Gregory — Managing Partner at Nonpareil.

Andrew Wong — Solutions Consultant at mParticle.

Andrew Chen — General Partner at Andreessen Horowitz and formerly led the rider growth team at Uber.

Mike Duboe — Head of Growth at Stitch Fix.

5.1

Operationalizing Your Growth Analytics

Alanna Gregory

Managing Partner at Nonpareil.

Today, operating in a high-growth environment requires meticulous definition and tracking of metrics in order to make informed decisions and measure improvement. However, setting up the analytics competency of your company can be challenging. This goes beyond just selecting and instrumenting the right tools, but rather encompasses understanding how to build a business that will produce actionable data. Let's break it down.

Step 1: Define your growth plan

Whether you're launching a new product, or your product is already live, having a solid growth plan is a helpful exercise as it not only aligns product and growth around common goals, but it also begins to set the analytical framework for how you think about measurement, ROI and growth.

Growth has several stages:

- *acquisition*, getting more users into the product

- *activation*, getting users to take the right key actions in the product
- *optimization*, reducing friction for users in the product
- *retention*, increasing value for users of the product.

A solid growth plan should address each stage of growth, and at its basest form, should help you answer the following questions:

- What metric(s) are we most focused on growing (*i.e.*, *revenue*, *signups/leads*, *etc*)? What other metrics (*if any*) are inputs into this metric?

Pro-Tip: Make sure not to miss subcomponents or inputs of key goals you want to track!

- How many leads with a given conversion rate do we need to reach our goals?
- How will we grow our leads? Does this approach make sense, and for the stage we're at? What assumptions are we making and are they reasonable, also for the stage we're at?
- How will we measure and optimize the product experience itself? How long do we expect users to be active?

To help guide an answer to the first question, many companies focus on growing one single metric, or their north star metric. This is the single metric that best captures a company's core value proposition that its product delivers to customers, and often guides product development. Having your team rally around one metric can also increase focus and alignment.

Step 2: Create a tracking plan

If your growth plan documents what you hope to accomplish, your tracking plan helps you arrive at the how, through data-driven

decision making. Your tracking plan breaks down each of your business goals into events and meaningful actions a user takes, their associated business metrics, and where those events live.

Your tracking plan should include the metrics that will help you understand how users go from first time visitors to engaged users of your product. At the highest level, a tracking plan dovetails with your growth plan and considers:

Acquisition: The most important thing we want to understand here is how we're growing top of funnel, and of course, our rate of growth. Depending on our business model, we want to add in additional metrics.

Activation: At what rate are users taking the key actions, how many active users do we have?

Retention: At what rate are people churning, how satisfied are they (*Net Promoter Score*)? We may want to slice retention by user behavior, traffic source, and more to understand what levers lead to retention, and how we can improve the product experience. Based on this information, and at this stage, what would you recommend instrumenting?

What does this look like in action?

Let's consider a content company such as ProductHunt, characterize our user behaviours, and see how these map into our growth plan. We might organize our users as follows:

Acquisition: We're focused on driving top-of-funnel traffic, and are interested in how people come to view our content.

- Viewed a collection or product
- Stayed more than 5 minutes

Activation: Here, we want to evaluate how users go from passive readers to active members of our community.

- Created an account
- Upvoted a product

- Create a review
- Comment added
- Votes per post
- Comments per post

Retention: Ultimately, the success of our site and content depends on how often and what percentage of people return.

- Percentage of returning users
- Upgrade account

Implicit here is that you have an understanding of the dynamics of your business model that will guide both your growth plan and help you identify what metrics to track.

Our recommended tracking plan for this then might include:

Event Definition	Property Names	Triggers	KPIs
User visits landing page	Traffic, referral source	User lands on homepage/landing pages	
User signs up for a newsletter	Email Address, Referral Source	User enters her email and clicks "subscribe" button.	Total signups, Conversion to Signup
User signs up for an account	First Name, Last Name, Email, Registration Method, Registration Date, other (specific to your business)	User signs up for an account.	Total users, Conversion to Signup
User logs into an account	First login, Last Login, # of Logins, Login Method	User enters his/her credentials and logs into her account	# Logins/User
User clicks upvote on a product	Product Name, Product Categories, First Upvote, Last Upvote, # Upvotes	User clicks the "Upvote" button on a product profile or icon on discovery pages	# Upvotes, % Users who upvoted, Avg # Upvotes/User,
User asks a question	Question, Category	User clicks "ask" in navigation, completes the required fields, and hits the "Save" button.	# Questions, % Users who ask question, Avg # Questions/User
User creates a review	Product Name, Product Categories, Product Usage, Product Recommendation, First Review, Last Review,	On a product page, ser selects one of the review icons, enters required review fields and clicks "Save", tied to each product	# Reviews, % Users who leave review, Avg # Reviews/User
User leaves a comment	Product Name, Product Categories, First Comment, Last Comment, # Comments	User enters comment in box on product page and clicks "Comment" button, tied to each product	# Comments, % Users who comment, Avg # Comments/User
User upgrades his/her account	Plan Type	User clicks "jobs" in navigation, clicks "Get started", selects a pricing option and completes checkout	Monthly Revenue, % Users Upgrade

Note that I've presented a simplified tracking plan here and excluded columns such as Property Types and Data Types for each property, for simplicity's sake.

Step 3: Select and instrument your tools

Now it’s time to operationalize your tracking plan. There are many tools across marketing, product and analytics. You likely want to understand the amount of data you’re tracking, how complex your problems are, your budget for these types of tools, and your business objectives as you select tools to architect your growth stack.

Tools generally fall into these categories:

Category	Function	Example Tools	Primary Use
Product Analytics	Event-Based Tracking	Segment, mParticle, Mixpanel, Heap, Amplitude, Google Analytics	Understand the behavior of users who come to your site and use your product
Marketing Technology	Email Marketing, Omni-channel; marketing	Braze, Iterable, Customer.io; Hubspot, Pardot, Marketo	Lifecycle marketing to engage, nurture and retain users
Marketing Technology	Landing Page Builder	Unbounce, Instapage	Build landing pages to use in acquisition campaigns
Marketing Technology	Heatmapping	Hotjar, Fullstory, CrazyEgg, VWO	Clicktracking and heatmaps to utilize in conversion rate optimization
Marketing Technology	Experimentation and Testing	Optimizely, Google Optimize	Run A/B tests, split tests and multivariate tests
Business Intelligence Tools	Data visualizations, reporting, insights	Mode Analytics, Looker, Periscope	Dashboarding and reporting, and exploratory analysis and insights

Pro-Tip: Invest the time to understand each tool’s strengths and shortcomings, and how these map into the current needs, requirements and priorities you’ve outlined for your company.

For your product and engineering team to properly implement the various marketing and analytics tools, all of your implementation requirements through should be documented in your tracking plan, usually delivered through a spreadsheet. This becomes the key communication tool between product and engineering teams.

It’s important that each tool is implemented exactly to the specification and that the data is QA’d and feeds into each service cleanly. As the saying goes, **garbage in, garbage out.**

Finally, adoption is critical. The tool is only as valuable as the data you feed into it, so make sure all the data you need feeds in, and that people on your team are able to use the tool and make sense of the insights.

Step 4: Operationalize your analytics in product, marketing and growth

Now that you're tracking data, you want to continually focus on improving your metrics.

To do this, it can be helpful to take stock of where you are and critically evaluate your growth plan. What's working, and what's not? Why might something not be working, and what can we learn from that? We start by considering, first, if we are on pace to hit our KPIs that we outlined in step one. If not, we must diagnose the core issue. Is it because of a lack of users (*acquisition*), a lack of engagement (*activation*), or high user churn (*retention*)?

Next, we'll want to dive deeper into the parts that are both working and not working. On what's working, how can we expand that strategy? On what's not working, what other experiments can we shift to? How are the quality of the users we're acquiring, and how do these vary by channel?

Having a solid underlying analytics framework and a data-driven approach to both product development and growth is a continuous process and requires thoughtful planning, and collaboration across teams. The earlier you and your team start, the better!

5.2

Instrumenting Your Product For Growth

Andrew Wong

Solutions Consultant at mParticle

Effective measurement and analysis of your brand's customer data starts with the thorough instrumentation of a data layer. A robust and comprehensive data layer, or customer data platform, serves as the scalable foundation for your analytics and growth stack.

To instrument your customer data measurement and analysis, you should take the following steps:

Step 1: Understand your KPIs and use cases

Before instrumenting your data layer or analytics tools, you need to understand what you want to accomplish with your customer data and what data you need to support those goals. A robust, well-planned data strategy can empower all facets of your business, but the data that is relevant for your marketing team may not be the same data that is relevant for your product or engineering team.

Defining the types of data you need to collect about your users ensures your data strategy will map to the business and technical needs of your entire company.

Step 2: Develop your data plan

Developing your data plan is arguably the most important step in instrumenting effective measurement and analysis of your customer data; any analysis you perform will be entirely dependent on the dataset you collect. There are generally two approaches to data collection, top-down and bottom-up, that can be used in conjunction to flesh out your strategy.

Top-down

The top-down approach focuses on using high-level business goals, like KPIs and use cases, to determine what user data you collect. At this stage, you'll need to dig deeper into the understanding of your use cases to determine the specific data points needed to properly measure their performance and metrics.

Bottom-up

The bottom-up approach uses granular data to drive your strategy and should be used in parallel to the top-down approach. Bottom-up data strategy planning requires fully exploring your digital properties and databases to understand all available data about the user and any actions that are possible for the user to perform. This low-level, granular view will allow you to uncover some areas of interest that you may not have considered when thinking about your data from the **“top-down”** perspective. From there, you can determine which granular data points are valuable for collection and analysis.

Both approaches require that you survey the full suite of digital properties because some types of customer data may only be

available from an app or website, while other data may be stored server-side in your company's databases, for example.

Types of data to collect

There are typically two main categories of data that you can collect on your users through your digital properties: user data and event data. User data refers to data about your customers while event data refers to data on customers' actions; both of these types of data are important when creating a well-rounded data strategy.

User data

User data describes identities and attributes of your users that should be maintained and persisted in their user profile. For most companies, the most basic user attributes to collect will include demographic data on the user's age, gender, and location, but can be expanded to include more specific attributes like membership level, lifetime value to your company, or opt-in status for marketing communications. These attributes allow you to analyze your user base to gain insights and build segments to perform specific workflows.

If your business operates in the EU, you may also need to capture and manage your users' consent status to adhere to the General Data Protection Regulation (*GDPR*) standards. Consent parameters for a user function very similarly to user attributes, in that they describe a persistent property of that user, based on their consent response. Robust customer data platforms, can capture and maintain consent status for individual users, allowing companies to action and filter based on a user's consent status. Consent collection and management is something that requires thorough planning and consideration from your organization with input from legal and privacy teams to ensure compliance.

Event data

Event data describes behaviors performed by your users, typically within your digital properties. These events can describe explicit actions such as navigating through an app, watching a video, performing a search, or completing a purchase. They can also describe passive actions, such as loading a particular screen or completing a call to your servers from the client.

There are many ways to track event data, so it's helpful to pick a methodology and stick to it through your instrumentation. For example, when tracking a user's navigation through your app, you could log events for each individual tap/swipe that takes them to a new page, or you could log an event when a new page loads. You may even want to track both, but the important thing is to be consistent.

You'll also need to decide how granular your event tracking should be. For example, if you have a sign-in page on your app or website, you likely want to track sign-in events as a key data point, but you could increase the granularity of event data to include sign-in attempts and failures prior to a successful sign-in. This type of granular tracking is particularly useful for funnel analysis and A/B testing when you want to understand precise user behaviors.

Taxonomy of events

Another important consideration when creating your data plan is the taxonomy that will be used for your events. There are an infinite number of ways to define the nomenclature of your data, but there are a few best practices that will help you keep your data scalable and usable.

Understand how the data will be used

Create a data model that your team will be able to use and understand. Keeping in mind who will be using the data after it's captured is critical because their understanding of the data model will directly impact how well they are able to analyze the data. Ideally, every team member that will come into contact with your customer data should understand what each data point represents

so that when the time comes to analyze or report on that data, they know how to find the right insights.

Naturally, most users will want to create event and attribute names that make sense in plain language, rather than coded names that will require translation. To improve legibility and organization, we recommend adding prefixes to event names so they can be easily grouped by module.

Keep event names abstract

Maintaining a user-friendly taxonomy means you need to build in scalability. Keep your data model scalable by keeping your event names abstract and adding more detailed information in the custom attributes of the event. As you add new content to your digital properties, the new values associated with that content will expand the set of metadata that you've captured, rather than inflate the set of unique event names.

One example of this type of abstraction can be applied to product views on an ecommerce site. Ideally, the event name could be abstracted to something like ***“View Product”***, while the details of the product itself would be captured in custom attributes such as ***“Product ID,” “Category,”*** and ***“Product Description.”*** This taxonomy ensures that your data is easy to find and read.

Step 3: Understand how your data will map in your integrated tools

Now that you have developed your data plan, you'll need to understand how that data will map to the schema of your customer data platform and integrated tools. This means familiarizing yourself not only with how events are tracked within the platform but also how your customers' identities are managed.

Customer identity resolution

To get the most accurate and useful insights from your data, you need to understand how your customers' identities are resolved and managed within your data analytics tool or CDP. Different tools will manage identity differently, so it's important to understand your specific tool's nuances.

When considering your tool's identity resolution capabilities, you should ask yourself:

- What persistent identity types does the tool support? (*custom IDs, email, social logins, etc.*)
- What are the minimum user identifiers required for data to be accepted?
- How does the tool handle multiple users on the same device?
- How does the tool resolve the identity of a single user across multiple devices?
- How does the tool associate anonymous actions with actions from subsequent logged-in users?
- How does the tool maintain user attributes/properties against the customer's profile?

Understanding the answers to these questions will guide how you send data and report analysis from your integrated tools.

Event structure

At an event level, each tool will also have its own unique event architecture that may differ from other tools. Some tools have dedicated event types for events like ecommerce actions, media interactions, or navigation with unique parameters and attributes built for that specific type of event data. Before implementing any code in your apps, determine which events in your data plan should be mapped to a specific event type.

Step 4: Instrument data collection across your data sources

Once you've developed a comprehensive data plan and mapped it to the architecture of your customer data platform or analytics tool, it's time to instrument the data collection across your digital properties. This will involve familiarizing your development team with the data collection SDKs or server APIs of the chosen tool.

Implement across relevant digital properties

If you choose to collect data directly from your apps and sites, as many companies do, you'll need to add the data collection SDK to those properties. You may be directly implementing an analytics SDK, or you may be piping your data through a customer data platform. Either way, you'll want to thoroughly review the documentation for the SDK to understand how it can be configured and how the methods should be properly called.

There are some areas of SDK implementation that can be more complex than others, so I've listed a few below that may require additional attention and testing —

- SDK initialization and configuration
- User sign-in and sign-out
- Ecommerce actions
- User attribute updates

Instrument server to server jobs

In addition to client-side data from your digital properties, you may have customer data that sits in your company's servers or databases. Many customer data platforms and tools will expose server APIs that will allow you to transmit event and user data directly to their system.

When orchestrating the server-to-server jobs, you should be familiar with the service's API endpoints and how to construct requests to those endpoints. Many platforms will have multiple endpoints with specific uses, so be sure that you are using each endpoint for the correct purpose and type of data.

Conclusion

While creating and executing on a data layer instrumentation plan can seem daunting, following the steps outlined in this guide will help you create a scalable data foundation that will benefit your customers and your business. Taking the time to consider what business and technical goals you want to accomplish, what data you need to accomplish your goals, and how you will collect and store that data from your digital properties will ensure your data layer maps to your business' needs and enable you to gain insight into your customer base. If you have any questions on instrumentation planning or want to learn more about how mParticle can serve as a flexible, extensible foundation for your analytics and growth stack, feel free to reach out.

5.3

Analyzing Your Customer-Acquisition-Cost

Andrew Chen

General Partner at Andreessen Horowitz and formerly led the rider growth team at Uber.

Determining your customer acquisition cost (*CAC*)—the cost to acquire a customer—is imperative for generating a positive return on your advertising spend.

Understanding cost-per-acquisition is important for both direct and indirect monetizing products.

For products that directly monetize their audience, such as ecommerce, subscription services and so forth, it often makes sense to rely on paid advertising to reach your target customer. However, carefully tracking the effectiveness of your campaigns based on cost-per-acquisition is essential. The reason being that, although there are 100s of millions of internet users, only a small fraction (*usually <1%*) will be in-market for your services at any given time.

As a result, you are aiming to optimize as much as possible as not to waste energy – and capital – on those outside your target user.

It's also important for ad-supported products and apps to understand what it means for ad inventory to perform or not perform, so they can sell chunks of their audience that better serve their advertiser customers. This is at the heart of indirect monetization. If you're not selling directly yourself, you're helping someone else sell.

In this article, we'll explore how to set up any paid campaign or paid strategy. We'll then dive into the two tactics to execute upon the strategy.

Assess your CAC – it is the key between profit and bankruptcy

In order to be profitable, your CAC needs to be lower than your customers' average lifetime value (*LTV*). In other words, the amount you spend on acquiring a user needs to be below the amount of money said user is estimated to spend during their lifetime as a user of your product or service. You can get an estimate of your overall profit (*pre-infrastructure, etc*) by subtracting LTV from your CAC. Profit = LTV - CAC.

The only difference between a good CAC and a bad CAC is whether it's above or below your customer LTV.

For instance, if it costs you \$200 to acquire a customer and on average, the LTV of your customers is \$300, you have a positive CAC.

It's critical to breakdown your CAC by source of your traffic, since you often get vastly different numbers depending on where you are buying ads. Let's dive into an example of a product that is running

campaigns through two different sources that produce different results:

Source	Ads Bought	Clicks	CTR	Signup	Upload Pic	Users	Cost	CAC	LTV	Profit	LTV/CAC
Google	1M	0.50%	5000	20%	50%	500	\$5000	\$10	\$15	\$5	1.50
ad.com	20M	0.10%	20000	10%	50%	1000	\$20000	\$20	\$15	-\$5	0.75

In this hypothetical example, 1 million ad impressions were bought on Google for a cost of \$5,000 dollars, which resulted in 500 new users. The CAC (*cost divided by number of users*) is therefore \$10 dollars. Using the same model to assess the Ad.com campaign, the CAC came out to double that, at a whopping \$20 per user.

Let’s take it a step further by thinking about profit (*pre-infrastructure*). Profit = LTV - CAC. For this product, each user is estimated to have a LTV of \$15. If the CAC through the Google campaign is \$10, then you are left with a profit of \$5. But because the CAC of the Ad.com campaign exceeds the LTV of the user, you end up with a loss of \$5.

Another way of looking at this profit calculation is LTV/CAC, or the ratio of lifetime value to customer-acquisition-cost. This can help you assess on a per customer basis what revenue multiple you need to be bringing in. Usually people target an LTV/CAC of 3X, as that leaves room for all the other costs of running a company and results in good margins. An LTV/CAC of 1 for instance would indicate there is no profit to be gained from the campaign.

A caveat to LTV/CAC is that while a high multiples are good for businesses, this is primarily over the long-term. If you are startup trying to get initial traction for instance, having a low LTV/CAC ratio may be permissible over the short-term.

Now that you have a basic overview, let’s apply it to your product or service.

Tactic: Calculate the CAC for your product or service

To calculate your CAC simply, follow these five steps:

Step 1: Break down your user acquisition funnel, from start to end.

You want to break down your funnel into as small of steps that make sense, from the clicks into the signup page into any intermediate profile forms and then the final registered numbers. Decide what are the most important steps to track. Your funnel may be larger or smaller than the example chart above.

Step 2: Determine important metrics.

The important metrics you need to track are determined by how you are being charged (*CPC, CPM etc*). For example, in a cost-per-impression (*CPM*) model, you want to track the click-through-rate (*CTR*). This is because, regardless if your ad is clicked on or not, you are paying for impression.

Step 3: Roundup the following campaign data:

- Ad source
- Number of ads bought
- Number of conversions (*signups/purchases*) that resulted from those ads
- The cost of the ads

Step 4: Plot your funnel and campaign data into a chart, like so:

Source	Ads Bought	Important Metrics (see #3)	Conversions	Total Users	Cost	CAC	LTV	LTV/CAC

Step 5: Calculate!

Determining your CAC is now quite simple. $CAC = \text{Cost}/\text{Users}$.

Advanced CAC Calculations

In addition to tracking your ads, consider grouping all your marketing channels into the chart, including email, partnerships, blog traffic, viral invites, and more. For stuff that's free traffic, the CAC is infinity, but it's good to know what kinds of funnels the other traffic throws off, for comparison's sake. There is no CAC (*cost 0*), but its still useful to include the free channels in the source to have a full breakdown.

Moreover, the last thing you want is a variation of an ad that is very unprofitable, but is obscured by being grouped together with successful ads. To avoid this, you may also want to track important factors like what creative was used, the banner ad size, and other things that might affect CAC.

5.4

Measuring The Performance Of Your TV Ads

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One of the topics I'm often asked about by early-stage startups is whether it's possible to test into TV at smaller budgets, and if so, is it even measurable?

The answer to both is a resounding: YES!

While the methods of buying TV media remain antiquated relative to newer digital channels, this doesn't mean the channel is inaccessible or unmeasurable. Following are a few reasons why you might consider adding TV to your media mix, and how you might approach measurement.

Note: the below assumes you're advertising with the purpose of driving performance. If you're much later-stage and hold an objective of driving awareness and brand-building, then some of this might not apply. However, I would argue that both brand and performance ladder up to the same objective, just on different time horizons.

Tactic: spike (or “burst”) analysis

Assuming you’re buying national media, which often comes at a fraction of the cost per impression (*CPM*) of regional media, one common method of measuring TV is spike, or burst, analysis. This is a relatively straightforward process:

- 1. Collect post-logs.** The TV buying agency provides the post-log, which details the exact time (*down to minute*) a spot aired.
- 2. Establish a baseline** to account for any potential seasonality or time-of-day trends and map a baseline of traffic (*or signups*) to the most granular practical level. Ideally, time of year → day of week → time of day.
- 3. Measure lift above baseline** for a [x] minute window after each spot airs, measure the lift in [traffic/signups] above baseline. This lift gets attributed back to TV.
- 4. Calculate cost per acquisition (CPA):** using the method above, aggregate the data to a level that makes sense for your business — weekly CPA, spot-level CPA, network-level CPA, daypart CPA, etc.

Note in #3 above, you might want to measure lift in the conversion event that makes most sense to your business. Generally this is something other than traffic, such as signups or first purchases. This adds a layer of complexity onto the analysis, as you’ll either need to use conversion assumptions (*non-ideal*) or track conversion rate from the specific cohort of traffic that arrived during your TV attribution window. The latter is more ideal, but less straightforward and noisy if there is limited data.

The method above provides an estimate of the direct response impact of TV. While this is less useful in comparing the impact of TV to other digital channels (*more on that later*), it can help optimize within your TV budget, as you compare spot-to-spot, network-to-network, and more.

Tactic: incrementality (“lift”) testing

A more accurate method — not just for offline but for any channel — is to run an incrementality test. There are several methods of going about this, but all follow a similar principle of comparing a control group to an exposed group and measuring total lift in conversions.

For TV, this type of test comes at a significant cost, as it will typically require buying regional media at CPM multiples of national media. However, the cost of not understanding incrementality can end up being much more expensive. Following is a common, simplified process used to conduct a TV lift test:

- 1. Allow for a cooling period.** Assuming your brand has been on TV for some time, you’ll want a *“dark period”* during which no TV media is running. This is because TV has a tail effect, which can last for weeks (*or more*) after an ad airs. The tail is more likely to be longer-duration the longer you’ve been on air. There is no one-size-fits-all answer on how long this cooling period should be. I highly recommend collaborating with your data science team — but generally, the cooling period is measured in weeks vs months.
- 2. Determine match markets.** In this test, you’ll measure lift by buying regional media and comparing exposed markets to control markets. To ensure meaningful insights, you’ll need to pick markets that most closely behave to one another. Typically, match markets are selected based on population size and your brand’s penetration in each of those markets — but you might also look at factors like income, education levels, political lean, conversion rates, etc. It will also help to have a representative sample of small, medium and large markets for the test.
- 3. Hold all other regional efforts constant.** To properly control for external factors, you’ll want to make sure test and control groups have the same likelihood of being exposed to other media during the test period. This means you should hold all other channels as steady as possible. You don’t need to turn off ads on other channels (*though for*

measurement purity, it can help) — but you should ensure no regional efforts on other channels would pollute the test.

- 4. Buy regional media.** Run your TV campaign as you would nationally. Your agency can help match gross rating point (*GRP*) levels across each of your test markets.
- 5. Compare exposed vs control market to measure percent lift.** You can calculate percent lift in conversions (*again, the conversion event that makes most sense to your business*) by comparing test vs control markets during your test period. Typically, 4 weeks.
- 6. Translate regional CPMs to national CPMs.** For CPA calculations, you'll need to make assumptions on what your CPM would have been had you been buying nationally. Your CPA calculation will be simple estimation of this spend level over the lift in conversions across test markets.

Assuming you run incrementality tests across digital channels, this method can help you get a more meaningful read on TV's total impact to your performance. If you want to get more advanced, it can also help you understand the interactions between TV and other channels like SEM, FB, etc — which can help you run a more optimal mix.

So should I think about testing TV?

There is no one-size-fits-all answer to this. When it's working, TV can create lift not only to your business, but to conversion rates across all other channels (*by “priming” those who see impressions across other performance channels*). However, the answer is entirely dependent on your core demographic.

Another consideration: this is one area in which going through an agency tends to be valuable, if not necessary. While programmatic and OTT technologies are making advances, the method of accessing linear inventory through networks is still fairly opaque, so you'll want a partner who has experience (*and relationships*) in the marketplace.

If you can tolerate swings in spend levels, and can afford a passable spot (*30s or 15s*) to air on TV, then buying remnant media with a partner like [Tatari](#) or [Opus Growth](#) can be a valuable test. If your budgets are slightly larger, there are a slew of more traditional media agencies (*e.g.* [Horizon Next](#)) who are beginning to operate with more of a performance lean.

So yes, the space is slightly more intimidating to navigate than the increasingly-automated FB and AdWords ecosystems — but there is still plenty of opportunity for performance advertisers to drive growth in a measurable way.

