Drowning in Data but Thirsty for Insight?
How to harness your marketing data to drive content creation
by Elizabeth Crinejo and Melissa Mines
When they named it “Big Data,” they weren’t kidding. Marketers have more data than ever at their disposal, but interpreting it can seem like an overwhelming task. Multiple collection platforms and the sheer volume of data they produce pose one set of problems, while internal challenges such as data silos and unclear data ownership further complicate matters.

Dealing with the data deluge is frustrating on its own, and that frustration is compounded by the knowledge that having usable data could help every aspect of your marketing team. Good data could be especially helpful for your content team, to guide them in creating and promoting content that has a real impact on your conversions and revenue.

This eBook covers:

✶ How to get data you can trust
✶ How to approach data
✶ How to apply data to content planning
✶ How to create a culture of data

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The Data Deluge

You’re almost certainly aware of the proliferation of data and data sources around you. But you might not realize how much data we’re surrounded by, or how fast the total data is growing.

The term “Big Data” came into general usage in 2012. That year, 2.5 exabytes of marketing data were created worldwide. 2017 is on target to create 1.46 zettabytes. That’s 584 times as much data than 2012’s output—and that doesn’t even approach the 16.3 ZB of total data to be created this year.

At the end of 2017, the total cumulative marketing data in the world will be 4.4 ZB. That amount will more than double with 2018’s expected 5.4 ZB of marketing data.

What does that mean in terms of usage? It means that as of 2017, every minute:

- Google conducts 3.6 million searches
- Does your content match the search terms your customers use?
- Twitter users send out 456,000 tweets
- Is your content easily sharable and share-worthy?
- 103.5 million spam emails are received
- Do your content-promoting emails get opened?

“We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely.”

—E.O. Wilson, The Unity of Knowledge, 1998

We’ve asked marketing leaders about their data-related challenges. Some of the most frequent responses include:

- Data siloed within departments or teams
- Data siloed within platforms or sources
- Combining data from different sources without distortions or duplications
- Choosing which data to consider when making strategic decisions
- Using data carefully, to nurture leads rather than overwhelming or ignoring them
- Working with small slices or segments of data
- Taking the numbers from data and converting them to practical actions
The Six Data Sea Monsters

Just about every data-related frustration stems from one or more of these terrors.

Competing systems of record
As marketing tools and platforms have proliferated, they haven’t just increased data by addition, they’ve multiplied it, often by covering the same actions in slightly different ways. These are just some of the data sources your department might use:

- Site analytics such as Google Analytics and Search Console, third-party analytical tools, including SEO tools
- Paid search tools such as Google AdWords or Bing Ads, plus third-party paid search measuring and optimizing tools
- Marketing automation platforms such as Marketo and InfusionSoft
- Email marketing tools such as MailChimp or Pardot
- CRMs such as Salesforce or Oracle

No clear owner
Data silos are formed when individuals don’t share their knowledge or coordinate their activities around that data so it’s managed consistently. This data sea monster might be lurking if any of these questions make you nervous:

- Who has access to your company’s analytics platform(s)?
- Who knows the logins for all your digital tools?
- Do these people all talk to each other regularly?
- Is there one person who knows how to use your email marketing platform (and has to leave highly detailed instructions whenever they go out of town)?
- What do you do if one or more of these people leave the company?

An addiction to vanity metrics
Some metrics have a real impact on increasing revenue, efficiency, ROI, and ROAS. Vanity metrics, however, don’t. They might sound good on the surface, but at best they distract from more important metrics, and at worst they distort actual performance and hide deeper problems. Vanity metrics can include ad impressions, social followers, aggregate document downloads—anything that can be counted but doesn’t really count.

Not understanding systems used
Every data system behaves differently: it tracks things differently, reports events differently, defines metrics differently, even exports into spreadsheets differently. Everyone who’s involved with data must understand these functions of every system your department uses. Most importantly, they should all know what it takes to break each system, what its limits are, and how to use it most efficiently.
A non-data-driven culture
Data has its own set of languages and customs, which can vary greatly from company to company. However, the languages and customs must be consistent within the company, so everyone who handles marketing data understands what it means, and data is talked about regularly—not just the numbers, but their strategic importance as well. A data-driven culture drives greater understanding, better decision-making, and higher returns.

Just plain bad data
Sometimes, the problem is within the data itself. Bad data could arise from any number of circumstances:
- Incomplete data caused by gaps in tracking
- “Dirty” data that isn’t validated or can’t be validated
- Duplicate data from multiple platforms with no way of identifying or separating duplicates
- Missing data from not historically tracking important metrics

If any of these sea monsters are lurking within your company, you shouldn’t trust your data, at least not in its current state.

The Six Data Sea Monsters in Action

“83% bounce rate?!”
This company was migrating to a new website, and was about 75% through the migration. However, there was no clear owner of the entire process or the data involved. Thus, the web dev team wasn’t telling the digital marketing/CRO team when they were moving forward with the migration, and the digital marketing/CRO team wasn’t telling the web dev team when they were running tests on the website.
So when the digital marketing team ran a test on a portion of the website that had already been migrated, the results were predictably awful. This lack of communication between the teams is one of the hallmarks of a non-data-driven culture.

Furthermore, the digital marketing team was using 10 different tools to run their tests, which meant that up to 10 platforms were hitting the website at any time. These tools each had unique ways of measuring and reporting the test results, so any benefit the tool stack might have offered was offset or completely negated by the confusion and work involved in interpreting the tools’ results.
“We don’t have keyword-level data.”

We had worked with members of this company’s digital marketing team to build out keyword-level data and connect it to revenue, so we were astonished to hear this. However, the two people we had worked with—the company’s “stewards of data”—had left the company. When they left, not only did they take all their data-related knowledge with them, they left a void in the company for data-driven conversations.

None of the remaining members of the digital marketing team knew about:

- The systems the two stewards had been using
- How to access those systems and harvest that data

How to drill down in the data to get keyword-level information and tie it back to revenue

The importance of regular conversations about data

Fortunately, we were able to show the rest of the team where to find their keyword-level data and how to use it, but this experience underscored how dangerous it can be to have only one or two people who understand company data.

“Our CPL is great; we just need to grow.”

In this case, the company wasn’t viewing their data with the necessary critical eye. Their average cost per lead (CPL) was around $110, well within their target range. However, that average CPL included all their keywords, brand and non-brand.

In general, brand keywords target existing customers while non-brand keywords target new customers. This company’s paid search portfolio revealed that 52% of their total spend went to brand keywords. (We recommend no more than 10%.)

CPL for brand keywords can be a vanity metric, especially when calculated as part of the overall CPL. Brand terms’ costs are lower due to low competition and search volume; non-brand terms are more expensive. The average CPL for this company’s brand keywords was $75, well below their average CPL of $110.

By comparison, the average CPL for non-brand keywords was $175—but even with the higher costs, these keywords were utterly essential for growth. By leaving only 48% of their paid search budget for non-brand keywords, the company was starving the keywords targeting new customers and thus actually sabotaging its growth.

A stronger understanding of paid search data and a culture with regular conversations about interpreting data would have prevented the digital marketing team from sinking so much ad spend into brand keywords.
“Impressions are down. What’s going on?”

This power company was concerned about impressions, believing that the quantity of people who viewed their ads was a crucial metric. To maximize impressions, they had cast a wide net with their keywords, hoping to reach as many people as possible. So they were dismayed to see that their ads weren’t getting as wide of an audience as they had hoped.

That said, the company was quite happy with the click-through rate (CTR) of some of their keywords. While their average CTR was only .09%, the CTR for many of their low-impression keywords averaged .60% – almost 7 times the aggregate CTR.

When we examined their keywords to address the company’s issues with impressions, we found that their wide-net approach to keywords had led to deceptive metrics with potentially devastating results.

Many of their low-impression/high-CTR keywords had nothing to do with what the company offered:

- Keywords related to gas prices had high CTRs, but were used almost exclusively by people seeking gasoline for their cars, not gas heating for their homes
- “Transformers” as a keyword attracted fans of the movies and toys, not people interested in electrical transformers
- More mystical keyword choices included “Power Rangers,” “Power Ball numbers,” “Monster Energy Drink,” and “juicers”

Yes, these keywords were delivering clicks and impressions, but they weren’t the impressions and clicks that would turn into customers and revenue. Worse, the company was spending almost 25% of their paid search budget on these non-relevant keywords.

We suspected that so many inexplicable keywords had come as a result of using a keyword planning tool, then adding all keywords in a group without reviewing each keyword individually. A more in-depth understanding of paid search data and tools would have prevented such a significant waste of spend.
Defeating the Six Sea Monsters: A Six-Step Plan

Many of these monsters are culture-based, so they can be overcome through conversations and accountability. That’s good and bad news, since your management and leadership are what will right the ship, but it might take months of conversations and new layers of accountability.

**Step 1: Start scheduling meetings to discuss data.**

Don’t wait for a data-driven culture to evolve on its own; actively create it by working to incorporate it into regular team meetings. Initial meetings can be about how they’re currently using data and how they’d like to use it, with meetings to follow about the tool inventory in Step 3, and all ensuing steps.

**Step 2: Determine which metrics most closely align with your business objectives.**

These will most likely be metrics that contribute to bottom-line numbers such as customer acquisition cost (CAC) and lifetime customer value (LCV). It’s crucial to do this before Step 3, so you’ll know what you want and need to measure, independent of whether or not your current tools can measure it.

**Step 3: Get an inventory of all tools, platforms, and systems you’re currently using.**

Include all the data-gathering tools you have, even if nobody remembers how to log into them and use them. Each item should have a summary of the metrics it tracks, which of those metrics it’s especially good at tracking, how far back it can gather data (possibly filling gaps in data), and how it gathers and presents reports. The summary should also include the known/unknown status of login credentials, tool usage, and training completion, as well as any subscription/renewal/upgrade information.

**Step 4: Select your systems.**

Determine which of the items from the inventory best measure the most critical metrics for your business. If there are any gaps between tools/systems and metrics, consider investing in additional tools. Also, investigate if you’re getting the most out of the tools you have; many tool providers offer additional benefits such as training and customized reporting.

❗ For the tools that don’t make the cut: If there’s no cost involved in using the tool and its security and functionality are solid, allow it to keep gathering data. This can be useful for double-checking the accuracy of the tools you’ve chosen.
Step 5: Get all the relevant people trained on all the tools. This could be the most demanding step, as it will require an investment of time and money, and might seem redundant at times. However, this step is crucial to breaking down silos, maintaining institutional knowledge, getting the best return on your tool investment, and furthering a data-driven culture.

Step 6: Centralize all relevant metrics into one data stream. As you and your team have gone through this process, you’ve probably gained much greater insight into how each metric ties into the overall customer journey. You might have re-evaluated your attribution model and extended your data-gathering into post-purchase activity, customer service, renewals and upgrades, and other aspects of the customer lifecycle. Now it’s time to put that data together into one consistent, end-to-end model that clearly depicts the meaning and impact of each metric.

Now that you’ve got data you can trust, you can begin harnessing it for real insights.

A Three-Step Framework for Approaching Data

Step 1: Look and Listen.
Break your desired outcomes into a series of single-focus questions that can be answered through data. Using your own insight and that of your team, form a hypothesis to test the aspect specified in the question. “Begin with the end in mind” applies here, as long as the end you’re seeking is an accurate answer to your question rather than a particular answer.

Step 2: Analyze and Learn.
Develop a plan to test each hypothesis individually, as independent from other factors or changes as possible in the real world. Before testing, make sure you’re tracking the relevant metrics consistently and accurately. Once you’ve gathered the resulting data, analyze the results.

Step 3: Act and Iterate.
Use the data you gathered during Step 2 to inform your next question(s) for your data. View your team’s progress through the lens of an Agile framework, where the ultimate goal is improving the process itself and it’s understood that the testing environment (the market) is constantly changing.

Following this framework is simple, but not necessarily easy. The most crucial thing to keep in mind when looking at data is this: approach it like a scientist. Bring your questions and hypotheses to your data; don’t look at the data first to see what questions it might answer. (Your team can do that later, and it might yield some interesting results, but for strategic matters, put your questions first.)
If the idea of being a scientist isn’t appealing, think of acting like a detective. Good detectives begin with a question (“Who has committed this crime?”) and use the data sets they have to answer it. By comparison, most depictions of bad detectives show them starting with the most easily accessible evidence and shaping it into a narrative of their own design. Bad detectives are big fans of vanity metrics.

Like interrogations in police shows, interrogating your data is all about directing the right question to the right resource at the right time. For instance, using the traditional sales funnel as a framework for informing general marketing decisions, you can test your hypotheses by directing these questions to these specified data sets:

**AWARENESS**

Where do our customers come from?

- Geographical data from analytics & paid search tools
- Sales by source (buyer-oriented traffic)
- Search query data (general traffic)

**CONSIDERATION**

How do our customers look for our solutions? Where do they go for information?

- Online source data from behavior & path tracking
- Traffic by landing page
- On-site search data

**DECISION**

Where do they need more information to help them purchase?

- Cookie data for more global concerns & interests
- Site usage patterns
- Content consumption

**LOYALTY & ADVOCACY**

What is similar about our best customers?

- Demographic data
- Geographical & time-based data

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**Trust the Process**

The scientific method has served those seeking verifiable information for nearly 500 years. Researchers the world over trust that process, because it begins with a question and seeks an answer, not the other way around. When you apply the scientific method to your own data, you can similarly trust its process, knowing that you’re proceeding in the right direction.

Many scientific experiments reach the conclusion of “Hypothesis not confirmed; more research needed,” and many detective cases aren’t fully resolved and get classified as “cold,” which essentially means “more research needed.” This is bound to happen to some of your data interrogations, and that’s to be expected. Use those experiences to inform the next question(s) you ask, which metrics you’re tracking, and even how those metrics are tracked.
Applying Data to Content

Quality content that answers customer questions at the right time can have a significant impact on conversions and revenue, so the ROI of applying data to content can be very high.

Content marketing done well is creating narratives and experiences that connect with your buyers where they are.

Separating this definition of content marketing into its main components reveals outcomes for the process:

- Creating narratives
- Creating relevant experiences
- Connecting with your buyers
- Meeting your buyers where they are

So now let's apply the 3-step framework to these outcomes.

Step 1: Look and Listen

Break your desired outcomes into a series of single-focus questions that can be answered through data. Using your own insight and that of your team, form a hypothesis to test the aspect specified in the question.

Creating narratives requires content insights:

- What messages are best suited to different stages along the customer journey?
- Is the storytelling balanced with conversion-oriented signals?
- Are benefits or features more prominent in content?
- Is the educational style appropriate to the audience and industry?
- Is the content consistent with brand qualities?

Creating relevant experiences requires engagement insights:

- Which pieces of content have attracted the highest volume of attention?
- Which pieces of content have attracted the most engagement?
- Which pieces of content have prompted sustained user engagement?
- What content formats tend to attract the most attention, engagement, and sustained engagement?

Connecting with your buyers requires buyer insights:

- What trends are most relevant to our buyers' industries right now?
- What terms are our buyers searching for?
- What topics come up most often in our buyers' social media posts?
Meeting your buyers where they are requires buying cycle insights:

- How much time do our buyers spend in the buying cycle before making a purchase? What stage consumes the most hours for them?
- At what stage are our buyers most likely to abandon the buying cycle?
- What questions do they have throughout the buying cycle? What questions do they still have near the end of the buying cycle?

And competitive insights should be a priority throughout the process:

- How do the messages, storytelling, style, and consistency of our content compare to our competitors’ content?
- Which of our competitors’ content pieces have received the most attention, engagement, and sustained engagement?
- How well does our competitors’ content speak to our buyers’ current concerns and industry trends?
- Do our competitors anticipate and answer buyers’ questions throughout the cycle, and does their online experience encourage conversions/purchases?

Step 2: Analyze and Learn
Develop a plan to test each hypothesis individually. Before testing, make sure you’re tracking the relevant metrics consistently and accurately. Gather the resulting data and analyze the results.

Content insights:
These substance-based insights are often best attained through professional analysis, with new technologies adding a machine-driven component. (For more on these new technologies, see the sidebar on page 13.) Remember that qualitative data is still useful data, as long as the source is trusted and trustworthy.

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Engagement insights:
Attention volume can be measured through traffic, comments, shares, and social engagements. Yes, we’ve identified these as vanity metrics, but here they’re used as a component of the data-gather-
Step 3: Act and Iterate

Use the gathered data to inform your next questions and tests. Remember that incremental improvements can make the most difference, especially in a testing environment that’s constantly changing.

Once you’ve tested hypotheses, gathered data and analyzed the results, it’s time to put those learnings into action. Using the insights that you’ve gathered, you could:

- Map your buying cycle/customer journey
- Match your content assets to each stage in the cycle
- Identify your strongest-performing assets to prioritize for optimization
- Create content to fill gaps in the cycle and create a plan to test and optimize these new assets
- Keep improving your content through testing and iterating
- Organize the optimized assets into campaigns that cover the entire buying cycle – then begin testing these campaigns

Building a Culture of Data

A data-driven culture offers compounding benefits as your team members build on each other’s ideas.

A culture of data starts with the people. When hiring and recruiting, be sure to seek out data-oriented experience, skills, and education. Look for people who aren’t intimidated by data or math, but are excited about it instead.

- **Experience:** Include interview questions to assess their analytical capabilities and get them to detail their logic. For instance, “Tell me about a time you analyzed a large data set to make recommendations.” Look for examples of thoroughness and persistence.
- **Skills:** Strong skills in Excel are a must. Truly data-oriented people will also likely pursue training or self-teaching in more complex software, such as R or Python.
- **Education:** Many of our best analysts have degrees in economics, statistics, math, and information systems management. Of course, we also have great people with degrees in business and marketing, but even they enjoy digging into data.

Once you’ve got data-driven people on your team, be sure to keep them. Smart employees tend to respond especially well to challenges and the opportunity to learn.

- **Challenges:** Give all your people, especially your data people, relevant, interesting problems to solve. Not only does this keep them from getting bored, it lets them contribute to the company’s success, which is a crucial component of employee satisfaction.

- **Learning:** We’ve found that it’s easier to teach marketing principles to people who know statistics than it is to teach statistics to people who know marketing. Create a training program that teaches those marketing principles and shows how they apply to the data questions your employees face.

Your training program should be collaborative, so team members can share their new learnings and discoveries with the group. And of course, it should be regularly updated as technology and approaches change.
How a Data-Driven Culture Works

*A culture that embraces data includes systems to get and maintain clean data.*

### Align it
- Make sure you’re tracking the right things as accurately as possible

### Clean it
- Get to the point where you trust your data

### Know it
- Understand the data from each system in its own language
- Know the slight differences between systems

### Maintain it
- Protect your data, keep it secure
- Keep your technology and your team’s skills up to date

### Enculturate it...
- Transparency is crucial to a data-driven culture

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#### Six Steps to Enculturating Data

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<thead>
<tr>
<th>1. Talk about it</th>
<th>4. Understand the system(s)</th>
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<tbody>
<tr>
<td>✴ Make data part of the overall culture</td>
<td>✴ Know how each individual system works: How does it compare to others? How does it think?</td>
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<tr>
<td>✴ Report on and discuss data weekly or even daily</td>
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<tr>
<th>2. Take care of it</th>
<th>5. Stay current</th>
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<tbody>
<tr>
<td>✴ Tend to your data; check its security and integrity on a regular basis</td>
<td>✴ Stay current with data industry developments so you can invest ahead of the curve</td>
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<tr>
<td>✴ When something changes that affects data (website change, new initiative, priority shift), update all data systems and tools to reflect that change</td>
<td>✴ When a team member comes to you with a new data tool to demo, celebrate that</td>
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<tr>
<th>3. Create redundancy</th>
<th>6. Embrace curiosity</th>
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<tbody>
<tr>
<td>✴ Don’t leave all data knowledge in the hands of 1-2 people</td>
<td>✴ When data doesn’t initially make sense, thank those who point it out, then investigate the data further to see what can be learned</td>
</tr>
<tr>
<td>✴ Make sure all the relevant people understand and know how to use all data-gathering tools</td>
<td>✴ Make sure team members know they can come to you with bad news regarding data.</td>
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The Future of Data and Metrics

Insight on content substance has historically been provided exclusively by content professionals who use their expertise and experience to evaluate qualitative aspects like educational style and messages in the buyer’s journey.

A new era of machine learning and AI will generate data to supplement (not replace) human analysis. Google and others are developing content scoring engines with astonishingly sophisticated algorithms that can evaluate “fuzzy” aspects of content.

These engines have up to 500,000 rules to grade content regarding:
- Emotional value
- Authority
- Pipeline velocity
- Storytelling
- Brand identity

As part of your data-driven culture, make sure your team stays up-to-date on these developments.

Go from Drowning in Data to Sailing on It

Don’t Panic
- It’s possible to organize the “data deluge”
- Remember to keep customer needs and priorities in mind, with a focus on their business outcomes

Align
- Determine which metrics align most closely with your business goals; they’re usually revenue-based
- Look for gaps between business goals and known metrics; these are opportunities for improvement

Commit to Your Data’s Integrity
- Get and keep your data clean
- Get and keep your data trustworthy
- Maintain your data regularly
- Support and celebrate data in your culture

Trust the Process
- Act like a detective
- Use desired outcomes to determine questions and develop hypotheses to test variables one at a time

Embrace the data deluge—it’s the new oxygen of marketing

Start with the Basics

If you’re at Square One, do these things first:
1. Add Google Analytics codes to your website
2. Implement tracking tags for all paid search channels (including conversion and remarketing tags)
3. Set business-oriented performance goals for each data collection system:
   - Google Analytics: bounce rate, time on site, pages per visit, goal completions
   - Paid Search: cost per lead or acquisition (separating brand from non-brand), return on ad spend
The Process at Work: Marketing Data Case Study

The results were so impressive because the team followed the Three-Step Framework for Approaching Data.

**Challenge**
Nurture a list of purchased contacts with content assets so contact agrees to schedule a meeting when asked by a member of the sales team.
- Emails drove directly to asset(s) with no required form fills to decrease abandonment
- The list was purchased, so data records were complete

**Goal**
Keep the number of sales team contacts low for maximum ROI

**Timeline**
10 months, including 2 months of preparation and onboarding

**Outcomes**
- Unique open rate increased by 88%
- Sales team contacts decreased by 31% (the goal of the campaign)
- Scheduled meetings with the sales team increased by 64%

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**Step 1: Look and Listen.**
*Break your desired outcomes into a series of single-focus questions that can be answered through data. Using your own insight and that of your team, form a hypothesis to test the aspect specified in the question.*

Testing was designed as an iterative process, with every new question and hypothesis building on the findings of the question and hypothesis that preceded it.

Additionally, the sequence of the questions began with the most important aspect of the campaign—the audience—and followed the micro-moments of engaging with an email.

At each micro-moment, the contact made a decision: upon seeing the subject line, upon viewing the email, upon clicking the promoted asset(s), upon engaging with the promoted content, and so forth.

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**Step 2: Analyze and Learn.**
*Develop a plan to test each hypothesis individually. Before testing, make sure you’re tracking the relevant metrics consistently and accurately. Gather the resulting data and analyze the results.*

The questions asked were at a level where one variable per question could be tested. This might seem unnecessarily granular, but that kind of rigor is crucial to gauging the actual performance of that variable. In any kind of experiment, controlling the non-tested variables is every bit as important as testing the variable itself.

If anything, trying to test more than one variable at a time would have been wasteful and counterproductive. Some data would have been generated, certainly, but the relevance of that data would have been negligible because it would be almost impossible to tie it to any one factor.
Step 3: Act and Iterate.
*Use the gathered data to inform your next questions and tests. Remember that incremental improvements can make the most difference, especially in a testing environment that’s constantly changing.*

Sometimes the findings of an earlier test prompted an alteration to the next question and hypothesis, and sometimes those alterations were prompted by human analysis and expertise. For instance, the original plan for audience cultivation was to segment the contacts, first by targeted product, type then by active/inactive, and purge all inactives.

However, the team’s leadership recognized that starting segmentation with a product rather than with the audience themselves ran counter to the guiding principles of marketing. Adjusting the test to reflect the importance of the audience and their behavior allowed the team to make more customer-centric decisions from the start.

Further, using human insight, the team decided to give the inactive list members a chance to decide for themselves whether or not they wanted to be purged. By introducing the “would you like to unsubscribe?” email, they got a much clearer picture of their audience’s involvement based on the contacts’ own choices. They even found that many contacts who had previously been designated as inactive would engage with the content at a level even greater than some of the “active” contacts once they had made the decision to receive content from the team.

**Question** Will creating a definition around new, active, and inactive users help with targeting our audience?

**Hypothesis** If we categorize records into buckets labeled new, active, or inactive, then we can get better insight into what content is engaging our audience.

**Findings** By creating three segments for deployments, metrics could be reported for new, active, and inactive audiences. This allowed us to determine what worked with new contacts and what converted inactive contacts to active contacts. **Hypothesis confirmed.**

**Question** Should we continue to email contacts who have never been active?

**Hypothesis** If we remove inactive contacts from the database, the remaining contacts will be likely to engage with the emails we send.

**Revised Hypothesis** If we send an email asking inactive contacts to unsubscribe, we will learn which contacts are truly disinterested or truly inactive.

**Findings** By sending the unsubscribe email, we could determine records that no longer want to receive emails (un-subscribers), records that want to stay in the communication stream (open, no unsubscribe) or records that truly are inactive (no open). Unsubscribes and no-opens were then purged from the system to allow for communication with a truly active audience. **Hypothesis confirmed.**
**3** 

**Question** Do we have enough subject line testing data to write the perfect subject line?  

**Hypothesis** If we analyze all historical subject lines, then we will be able to write a formula for the ideal subject line.  

**Findings** We tested 180+ subject lines to provide statistically significant data around what engages the audience more. Throughout the process, subject lines were tagged with metadata including type of subject line (asset, benefit, question, ellipsis), level of personalization, references to brand or products, use of numbers, and character length.

<table>
<thead>
<tr>
<th>Aspect of Subject Line</th>
<th>Change in Open Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalized questions</td>
<td>+25%</td>
</tr>
<tr>
<td>Non-personalized questions</td>
<td>-39%</td>
</tr>
<tr>
<td>First name &amp; company personalization</td>
<td>+68%</td>
</tr>
<tr>
<td>No first name &amp; company personalization</td>
<td>-22%</td>
</tr>
<tr>
<td>City personalization</td>
<td>-38%</td>
</tr>
<tr>
<td>Brand reference</td>
<td>+19%</td>
</tr>
<tr>
<td>Number used (“15 ways...”)</td>
<td>+14%</td>
</tr>
<tr>
<td>20-29 characters used</td>
<td>-31%</td>
</tr>
<tr>
<td>70-79 characters used</td>
<td>+23%</td>
</tr>
</tbody>
</table>

**5** 

**Question** What is the right number of assets to be offered in an email?  

**Hypothesis** If we promote one asset per email, then subject lines and copy can be more aligned with the offer, which may increase engagement.  

**Findings** Emails offering one asset outperformed emails offering any other number of assets. **Hypothesis confirmed.**

**6** 

**Question** Will personalization inside of emails result in a higher engagement rate?  

**Hypothesis** If we carry subject line personalization into the email copy, then the message will be more consistent, causing engagement to increase.  

**Findings** Performance for this change is hard to isolate due to several email changes occurring at the same time, including creative and audience segmentation. Moving forward, we will change only one component at a time to determine what moves the needle. **Hypothesis NOT confirmed.**
**Question** Does changing the time zone in which an email is sent impact open rate or CTA conversion?

**Hypothesis** If we send at the same time in each zone (9 a.m. EST, 9 a.m. CST, 9 a.m. PST), then we would see similar open rates and CTA conversions at 9 a.m., 10 a.m., and 12 p.m.

**Findings** Sending at the same time in each time zone had little impact on the open rate or CTA conversion. The largest audience was in the Eastern time zone; this could skew CTA conversion, but not open rate. **Hypothesis NOT confirmed.**

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**Question** What is the best day of the week to send emails?

**Hypothesis** If we send emails over multiple days of the week, then we will be able to determine the best day to send based on engagement.

**Findings** Surprisingly, this audience engaged the most on the weekends. Sunday saw the highest open rates, with Saturday close behind. When it came to engagement, Tuesday saw the best click rate, with Saturday at about the same rate. We determined that the best send day was Saturday. **Hypothesis confirmed.**

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**Question** Can the current data tell us the best time to send emails?

**Hypothesis** If we review bulk API data of open times, then we will know when our audience is engaging the most.

**Findings** The largest percentage of opens are tied to the same hour as the send time. This skews any results toward the hours when the most emails were deployed—in this case 7 a.m., 9 a.m. and 1 p.m. **Hypothesis NOT confirmed.**

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**Question** What is the best time of day to send emails?

**Hypothesis** If we A/B test send emails at various points in the day, then we will determine when our audience is most active.

**Findings** While we see the highest open rates at 4 p.m., getting contacts to engage with the CTA is best suited for first thing in the morning. Best time to send for opens: 4 p.m. Best time to send for clicks: 9 a.m. **Hypothesis confirmed.**

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**Case Study Takeaways**

- Avoid making early assumptions
- Align questions and hypotheses to desired outcomes
- Plan the work, work the plan (don’t sacrifice for speed)
- Fight to stay objective (avoiding opinion trumping data)
- Test one aspect at a time; make it bite-size
- Improvements aren’t guaranteed
- Keep asking, communicating, testing and optimizing
To start your own voyage from drowning in data to sailing smoothly on it, contact Elizabeth Crinejo of (un)Common Logic or Melissa Mines of Bulldog Solutions.