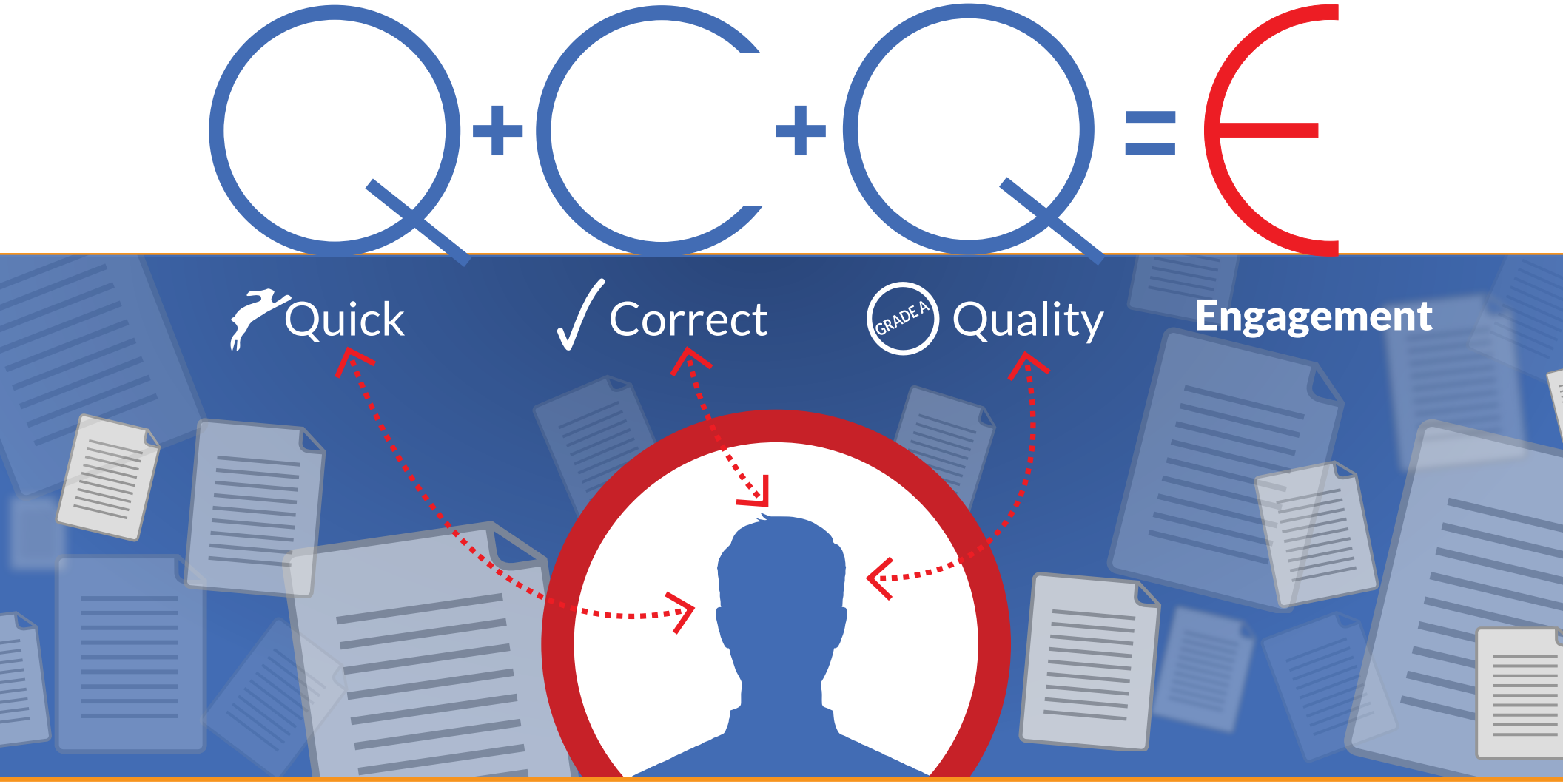
yottaa

THE **NEW** CONVERSION EQUATION



How to **Engage Users** in the Era of Vanishing Attention Spans

Introduction

FACT

Some customers who click to your site **never reach it**. If your site doesn't start loading fast enough, they bounce away.

FACT

Other customers bounce as soon as they hit the first page. There might have been an error on the page, or they not have liked the look of it. **Either way, they're gone too**.

FACT

Still other customers click around the site and add items to the shopping cart, but leave **before checking out**. Something about the site turned them off.

What do all of these visitors have in common? They aren't fully engaged.

By now online marketers have figured out how to drive traffic to their site. It's not easy, and can be labor intensive, but there are well-defined paths forward. That means the new frontier for marketers today is how to optimize the experience once that traffic hits the site: that is, optimizing visitor engagement.

This eBook, a collaboration between Yottaa and the marketing experts at Distilled, is a guide to engaging web visitors in the era of sky-high expectations for user experience and low patience for anything less. We've come up with a three-part equation for engagement. Each of the three chapters includes step-by-step how-to instructions for optimizing the experience of each web visitor. (Each chapter also includes information pertaining to mobile).

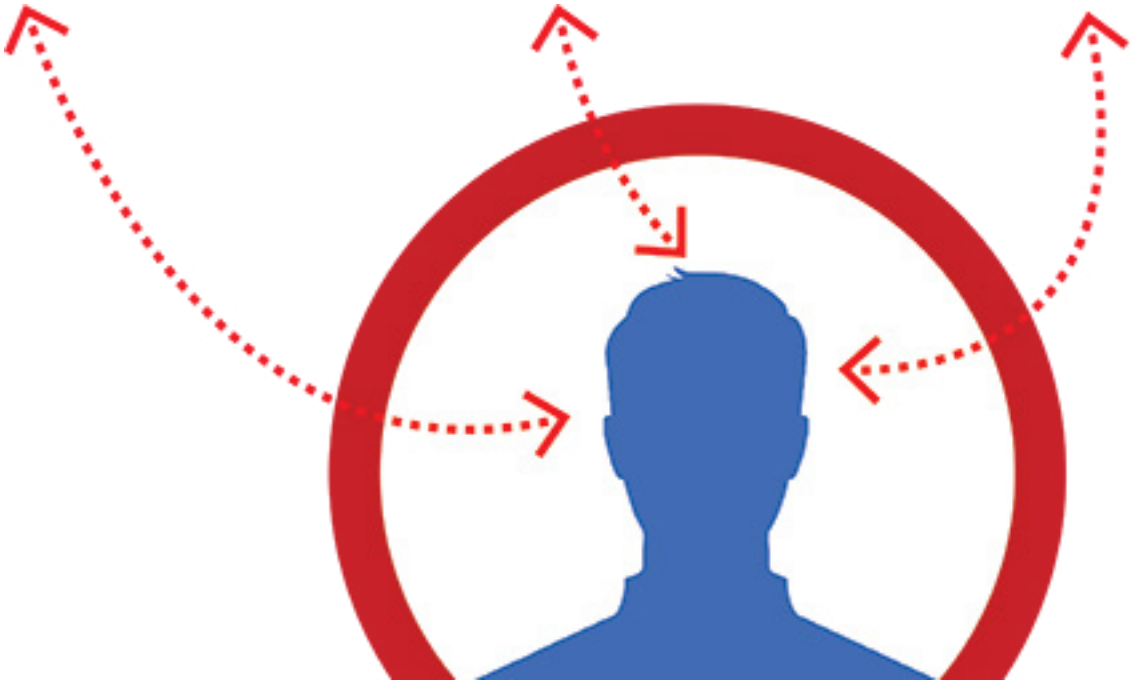
Our goal is to help every site owner achieve more conversions and revenue by better engaging every visitor.

Introduction

Wait - what does 'engagement' mean?

"Engagement" means a lot of things to a lot of people. In order to be inclusive, we're defining it broadly as success in any of several metrics that matter to you: it could be eCommerce conversions, total page views, average number of page views per visit, or an increase in return visits. It could simply be revenue. If you use Google Analytics or another program to track these metrics already, you know what your goals are. This eBook is all about helping you to meet those goals, whatever specific tracks they may involve.

If you're new to the world of engagement metrics, or just need a refresher, we suggest you put this document aside for a few and first check out 10 Engagement Metrics Everyone Can Use.



Overview: The New Engagement Equation

In order to capture visitors' attention today you need a holistic combination of performance, presentation, and content. You must:

1. Present Content **Quickly**

Any waiting time for the visitor reduces the likelihood of the visit resulting in a positive outcome. That includes more bounces, fewer pages viewed per visit, and shorter visit duration. Certainly it means fewer conversions.

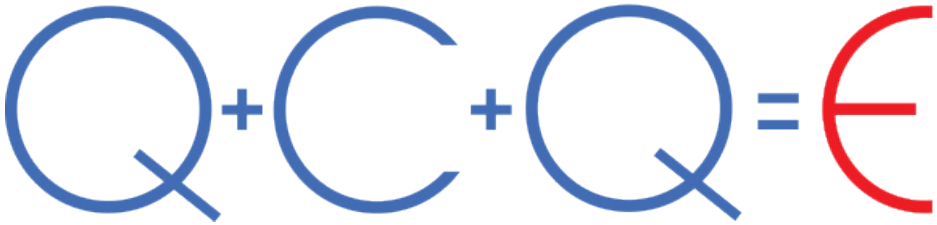
2. Present the **Correct** Content (at the right time)

If unexpected content, or broken content, shows up, it doesn't matter if it's fast or it's pretty. It's still wrong. Any trust the user had with your site is diminished, and if the error or poor timing sets the experience off badly enough, the user will not stay.

3. Present **Quality** Content

Content should be optimized for a pleasing layout, intuitive navigation, high quality imagery, and personalized offers. This is accomplished through conversion optimization including A/B testing and analysis.

How do you make sure your site makes all these marks? Let's explore..



The equation: Quick + Correct + Quality = **Engaged**

CHAPTER 1

Present Content **Quickly**

One reason visitors aren't engaged is that the pages don't load fast enough. It could be that their attention has been diverted by the time it takes to load, or they're in a rush so they start looking elsewhere as soon as they hit a certain threshold of impatience. They could also view a handful of pages and, if the page-to-page transitions are sluggish, they'll decide that they don't want to go through what's sure to be an agonizing checkout process.

The bottom line: No matter what your site looks like, or how great the content is, if it's slow people will leave – to the tune of 40% in 3 seconds of waiting.

That's why the first section of this eBook is about presenting content quickly.

Step 1: Discovery

It's not a question of if your site can be faster – it's how much. Even the fastest sites on the web, like Google and Amazon, have entire teams devoted just to performance optimization. But before you start, you have to find out where you stand.

First, run tests or start monitoring. **Use tools like websitetest.com to establish a baseline.** This will be your point of reference for all optimization activities. When setting up a test, be sure to test from any region you do business in, and do separate tests for mobile devices and networks.

Some key metrics to look for are:

Time to Last Byte: This indicates the performance of your server/backend, how fast it can process a request and send it back to the client. The median for this metric across the web (based on a study of tens of thousands of websites) is around 750 milliseconds.

Time to Start Render: This indicates the time the user waits to see the first pixels paint on screen. The median across the web is 2.5 seconds.

Time to Display/Interact: These metrics together indicate a full page load. The distinction is between when all page elements are visible in the viewport (Display), and when the page is complete to the point where the user can fully interact with the page (Interact). The medians for these metrics are 5.2 seconds and 6.3 seconds.

CHAPTER 1

PRESENT CONTENT **QUICKLY**

Terms to Know!

Site Performance

Time to Last Byte

Time to Start Render

Time to Display/Interact

www.websitetest.com

Note: Depending how the site is configured, either Display or Interact may be a truer indication of user experience than the other. It could also be a blend of both. For instance, if you intentionally delay load some elements, Time to Interact may be a less impactful data point, since it's artificially dragged down by the delayed elements. On the other hand, if you find that your site displays quickly but the loading of below-the-fold content is preventing users from scrolling or using the site in the interim, Time to Interact will be a better indicator of experience. You will have to use a heuristic process to determine which metric is better for you.

Once you've run a battery of tests, you can use these same testing tools to benchmark your performance against competitors, and set appropriate goals for performance improvement. For help in defining these goals and time frame, check out our eBook on Managing a WPO Project.

Step 2: Optimize

Performance optimization approaches fall into two categories: Backend and Frontend.

Backend

You will probably have noticed in testing that the backend metrics (such as Time to Last Byte) account for a tiny portion of the overall page load time. You should take this into account: it's a reflection of the way the web works today. In the past, a lot of sweat and resources were spent on improving the backend performance. Now, though, with the level of technology available on the commodity market for hosting and infrastructure add-ons, it's much less a problem for most sites. Still, since the backend is what drives every request to your website, it should not be overlooked. If your times were far off the benchmark then it should be remedied.

How to: Unfortunately, there's no shortcut or easy homegrown solution to reducing backend latency. If your connection times are slow you'll need to invest in better hosting. That could mean moving from a shared environment to a single server. If your company is in a growth phase, then upgrading hosting is probably on your plate already – performance will be an added benefit.

Also, if notice that challenges in backend delivery are isolated to certain geographic regions, you may want to invest in a content delivery network (CDN) that places content from your site around the world.

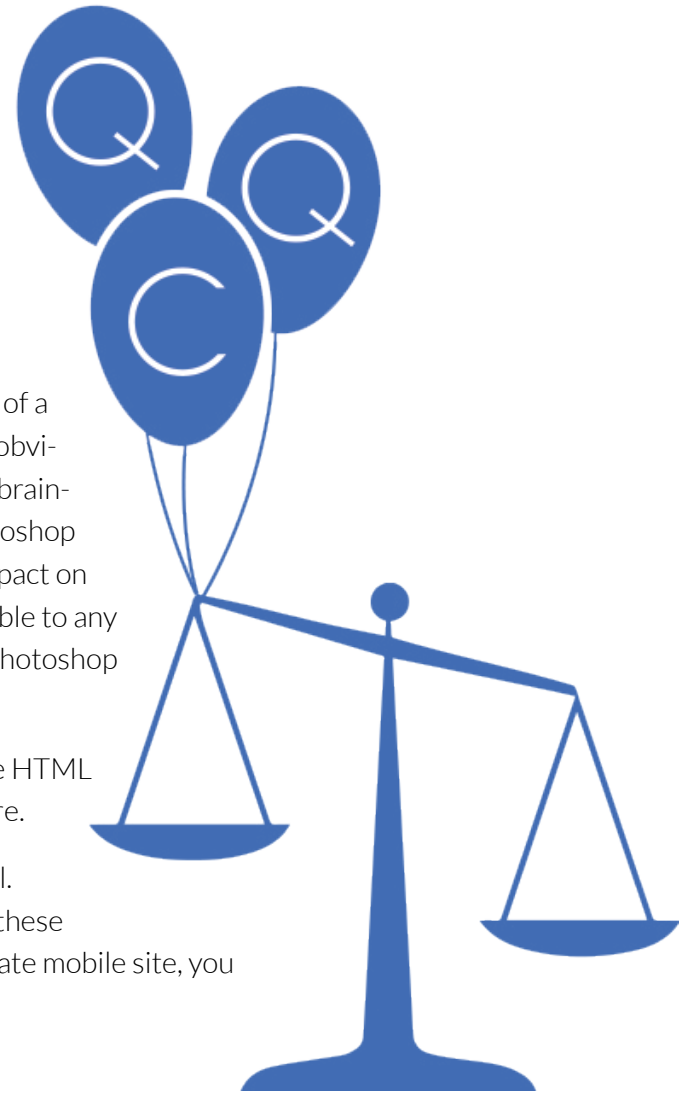
Front end

Here's where the rubber meets the road for optimization today. As websites have gotten bigger and more complex over time, the bottleneck for performance has shifted to the front end, meaning the downloading and rendering of content in the user's browser. That means the best way to improve performance is to focus on the content itself.

Methods to improve the performance of content are many, and we cannot cover them all here. For a more in depth discussion of techniques, check out our eBook: 11 Techniques to Accelerate Your Site. But here are the basics.

Combining Files

Recall the "waterfall" charts that accompanied your performance tests. (Similar displays can be found in "inspect element" or Firebug views of your live page). Each horizontal line of the chart represents a trip from the visitor's browser, to the server, and back. Each of those trips takes time, and the browser can only process so many at once. That's why concatenating, or combining files, is a performance best practice. This can be as simple as copying and pasting the code of a file, say a JavaScript, into the end of the code of another file of the same type. For images, there's a method called spriting that involves creating a single image that contains the visual content of many images -- CSS is used to place the visual content where it should be on the page. There are online tools that can perform the task of spriting, like SpriteMe.



Reducing "weight"

The other primary factor in front-end performance is the total number of bytes on a page, often referred to as "page weight". This can be reduced in a few ways. One is minification: the process of removing whitespace and unnecessary comments from code. Another is image compression: since images usually account for a significant percentage of a page's weight (today, around 70% on average) compressing them is an obvious choice for a big performance impact. Lossless compression is a no brainer – it reduces bytes without affecting quality. This can be done in Photoshop or online tools like Smush.it. Lossy compression has a much greater impact on reducing bytes, while reducing quality only slightly (typically unnoticeable to any visitor). This can be done by playing with the quality ratio of JPEGs in Photoshop or similar software.

The most basic compression of all is GZIP, which is applied to the entire HTML file of your site. It's likely already applied, but double check to make sure.

Luckily, all of the above performance techniques apply to mobile as well. If you have a responsive site, or no separate mobile site, implementing these techniques will automatically help your mobile site. If you have a separate mobile site, you can duplicate techniques there.

CHAPTER 1

PRESENT CONTENT **QUICKLY**

Terms to Know!

- GZip
- Minification
- Lossless Compression
- Lossy Compression
- Performance for Mobile
- Concatenation
- Spriting

There are a few things to keep in mind, though, when it comes to mobile. Given the extra challenge posed by slow cell networks and low-power mobile devices, you will want to dial up these techniques more aggressively if you're applying them separately for a mobile site. If you don't have a separate mobile site, there are ways to apply different versions of these techniques based on if the user is coming from a mobile device – for instance, increasing the level of lossy compression for mobile users who can't see images in high definition anyway. These techniques will be covered in the next chapter.

Step 3: Review and Analyze

Once you've applied a few techniques for performance optimization, run the same battery of tests you did originally and compare them to the baseline. If you've made a serious impact on performance, great job! If not, it's time to go back to the drawing board. There are plenty of more advanced techniques to research. A good place to start is Steve Souders' books and talks, and blogs of thought leaders like Guy Podjarny, Sergey Chernyshev, Stoyan Stefanov, and many more.

Once the performance of your site is improved, you may see a change in engagement metrics in as little as a few days. Engagement metrics like those outlined in the intro should be positive – but not necessarily. Remember, performance is only one part of the equation. The only way to guarantee moving the needle is to complete the equation.

Chapter 2:

Present the Right Content

The explosion of web-enabled devices – tablets, phones, laptops and the rest – has been a constant (and constantly worsening) headache for website owners. Sometimes websites work on certain viewport sizes, but not others. Flash content still isn't visible for most i-device users, and heavy content that is manageable for a desktop computer's browser may be so agonizingly slow on a mobile device that the request times out.

Moreover, today's busy, feature-laden **websites become less engaging when they put too much information on the page at once, either confusing or overwhelming the visitor.** The solution to this is not to be a Luddite and strip away functionality, but to find a way to present it in an engaging manner.

There are a number of ways to fix all of the above problems. These are relatively new, and more technical than the ones that we covered in Chapter 1. But they are only going to increase in importance if the trend continues toward more complex websites and more unique device profiles.

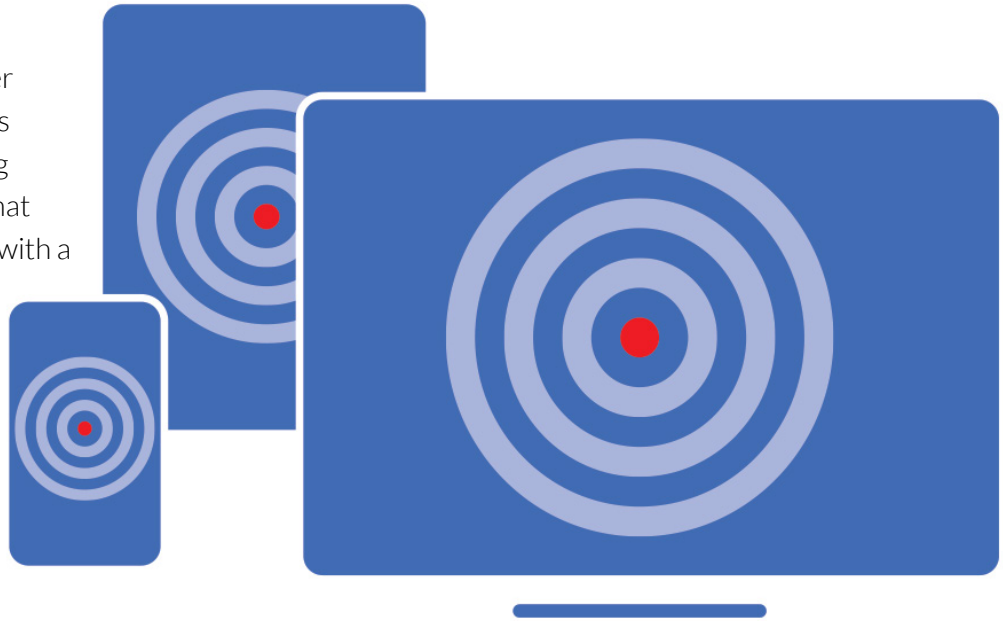
Methods

There's less of a direct test-act-test cycle for these methods, since success isn't necessarily driven by metrics like Time to Display. The benefit of these techniques won't truly manifest until you have seen your engagement metrics collect over time.

Given that every site has different goals and needs for engagement, we will list some techniques, and then provide examples of how they can be applied to improve engagement. You can choose what fits for your site based on the existing challenges you face.

Device targeting

Using the user agent string, your server can collect information about a visitor's device, browser, and OS version. Using this information, you can customize what content is sent to what visitors, either with a third party solution or by hard-coding instructions. This tactic addresses the difficulty of ensuring an error-free experience for all visitors, regardless of their device profile.



PRESENT THE **CORRECT** CONTENT

How it can be used

You can program device targeting to send smaller or fewer pieces of content to certain users. For instance, you could hand-select which images are most important and send that smaller subset of images to mobile viewers with a 3G or lower connection. They will have approximately the same experience, but performance will be significantly better.

You may choose to send an image or embedded video in the place of Flash content to Apple devices.

You can send video or image content that's been sized to match different screens. Browsers resize this content automatically, but it wastes bytes and hurts performance to force the browser to download a larger size than is necessary.

How to implement

A handful of "screen scraping" technologies like Moovweb or Mobify can provide targeting that covers many of these use cases. RWD is also useful in this regard, but it cannot choose which content to send and when unless the infrequently used (and much harder to implement) RESS server components are applied. Flexible device targeting is included in Yottaa's Engagement Cloud platform.

Site Performance

Time to Last Byte

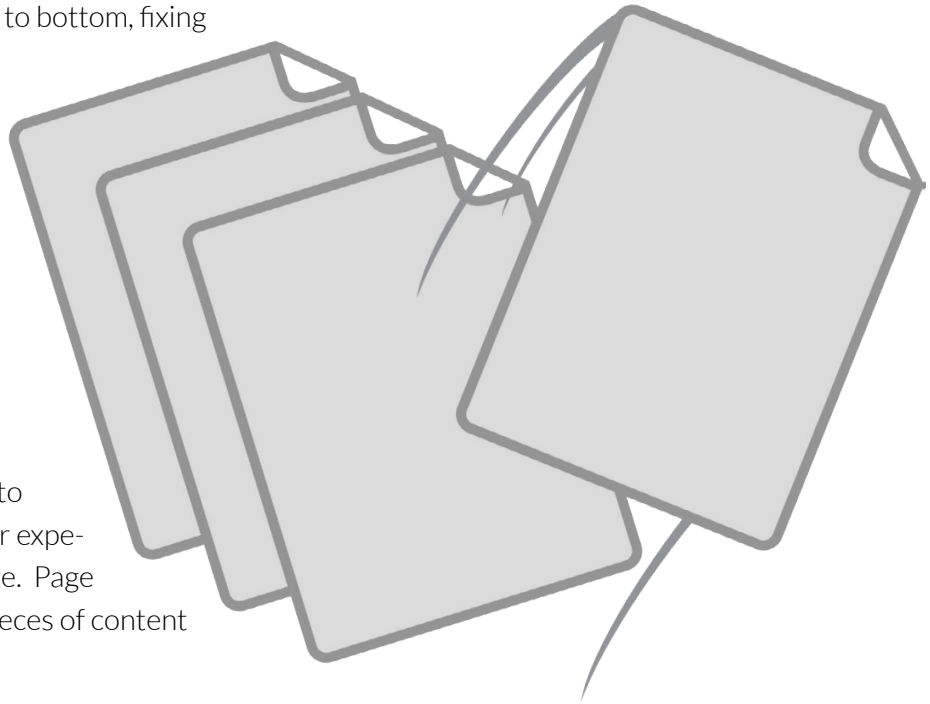
Time to Start Render

Time to Display/Interact

www.websitetest.com

Sequencing

Sequencing means prioritizing the load order of page elements to ensure the right content comes up at the right time. On today's complex websites there's so much to be downloaded that failing to find the right order of rendering can be devastating for the user experience. On the simpler side, this means literally putting certain assets higher or lower than others in the HTML file. Since browsers download and parse the file from top to bottom, fixing the order helps regulate what comes up first.

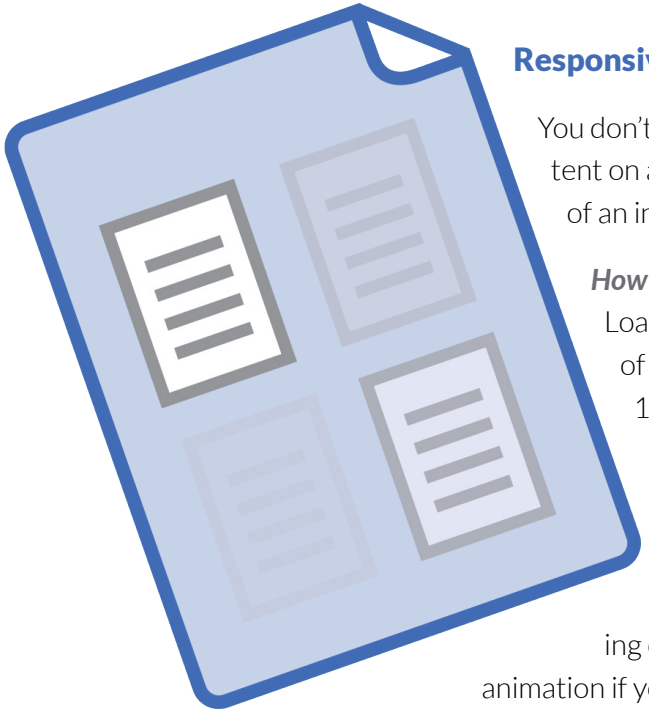


How it can be used:
If an advertisement unintentionally renders before the main content, that's a poor experience for the user. With sequencing you can place advertisements lower in the load order and make content like a hero image or carousel appear first every time.

Third party tags, like social media widgets, are troublesome for performance. They are prone to performance issues and can drag down the user experience that they are ostensibly there to promote. Page sequencing can ensure that these peripheral pieces of content load only after above-the-fold content.

How to Implement

Reordering assets can be done manually by copy/pasting, but there are a number of tricks and best practices to go along, including inlining assets and inserting objects into the head. Our eBook, How to Optimize the Order of Execution covers many of them. It can also be applied programmatically with Yottaa Engagement Cloud or with techniques like this one.



Responsive loading/Delay loading

You don't have to load the whole page at once. There are options to load content on a time delay or in response to on-page interaction. This gives the effect of an interactive and enjoyable experience, boosting engagement.

How it can be used:

Loading third party widgets responsively or on a delay takes the use case of page sequencing a step further. Delaying them for an interval like 5 or 10 seconds will ensure that any performance problems they have don't interrupt the rest of the site. For a more advanced version of this technique, you can set them to load on-demand when the cursor hovers near the area.

For long pages, with lots of below-the-fold content, responsive loading of images can make a big difference. The content pops into view, with animation if you so choose, making for an interactive experience.

Terms to Know!

- Responsive Loading
- Page Sequencing
- Order of Execution
- RWD
- RESS
- Screen Scraping
- Device Targeting

Page sequencing can be implemented manually per asset or per page with JavaScript attributes like delay, mouseover, and a host of others. (Sample instructions for loading social tags on mouseover can be found in this post on our blog). It can also be implemented across all pages with Yottaa Engagement Cloud.

Conclusion

Preparing your page for viewers from a number of devices is already key for success in many industries, and will only become more so. These techniques, though harder to implement than most, will pay dividends as your site will engage better than the competition on increasingly ubiquitous mobile devices.

Chapter 3:

GRADE A

Present Great Content (Content Optimization)

Presented by

distilled
smarter online marketing

It can be tempting to dive straight into conversion rate optimization (CRO). I can understand why – it looks super easy, doesn't it? You change the color of a few buttons, alter the position of elements on a page and then see conversion rates improve, right?

Unfortunately, it's never as straightforward as this. **CRO is really all about finding out exactly why customers do not buy your product and then fixing that issue.** Because of this, a clear and concise methodology and process for running CRO tests is crucial for increasing your chances of running a successful experiment.

In this chapter, we will outline a three-step process for CRO and the specific tactics that you can use to follow this process yourself.

Step 1: Discovery

This, for us at Distilled, is the most important part of the process and usually takes the most time. We'll try to gather information about our customers and their concerns when buying our products; from here we can form hypotheses on why they may not be converting and then test these things.

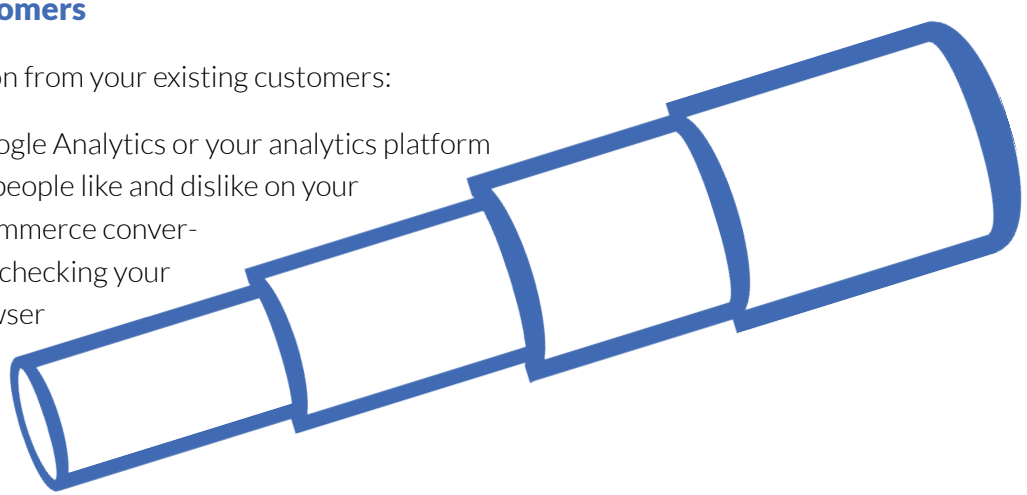
Without this information, it's pretty much like flying blind. You'll be running tests based on your own assumptions, not the concerns of the customer. This case study is a good illustration of why our assumptions on what will work for CRO can often be wrong.

Here are a few ways to gather data to inform your CRO tests.

Gather information from real customers

There are several ways to get information from your existing customers:

Google Analytics - A deep dive into Google Analytics or your analytics platform of choice can give you insight into what people like and dislike on your website. If you have goal tracking or ecommerce conversion tracking setup, you should be cross checking your conversion rates against things like browser type to see if particular browsers are causing technical problems. Here is a case study from Distilled where we encountered a problem like this.



Usertesting.com - You can pay a fee of around $40 for someone to answer a series of questions regarding your website; they will then record a video of themselves browsing your website and will talk through their actions as they do so. This means you can get good feedback from an external perspective on what does and doesn't work on your website. You can also be quite specific with your target demographic and align this with your target customers.

Feedback Army - This is the same principle as usertesting.com except it's a bit cheaper and the responses are text based rather than video.

Qualaroo - We're fans of Qualaroo at Distilled. This tool allows you to embed a small survey on your website and ask short questions. This means that you're getting real feedback from your website visitors which can be more valuable than the third-party people involved in the previous two options.

Just using one or two of these methods can give you a lot of information about the problems on your website. The key is to find the common trends and prioritize them; from here you can start to form a hypothesis of what you want to test and try to improve.

Gather information about the product and company

Learning from your customers is very important but you must also take an objective view of the product and company, and find out what makes them different. Sometimes a website will not do a good job of communicating product USPs, even though they exist. It is important that you're able to spot these kinds of opportunities.

There are a few ways you can find and gather this information:

Speak to customer service teams - These people are on the front line with customers and will have a wealth of experience and information regarding product sales. In particular, ask them what feed-back they get from customers in relation to their problems and also what they like about the product.

Speak to the marketing and sales teams - These are the guys who have to convince people to buy the product so they should know the product benefits and USPs better than most. Ask them about the angles they use to sell, what problems the products solve, and why they feel their product is worth the money.

Look at competing products - Whilst it isn't a great idea to get hung up on competitors, taking a glance over their websites and seeing what they're doing can yield a few insights that you may be able to use yourself. Look at how they position the product, try to be objective and figure out what works about their product pages.

Once you have this information, you need to go through a similar process as the previous step – look for the common themes and draw up a list of key things that need to be communicated to customers in order to convince them to buy.

Once you have all of this information, you need to turn it into a series of hypotheses. A hypothesis is simply an explanation for a certain event or type of behaviour. So after gathering all the information above, one key trend may be that:

"Customers do not understand the key benefit of the product which is that it automates 70% of their work and saves them time."

From here, you'd form a hypothesis that may look something like this:

"If we make the key benefit more clear on the product page, customers will see the value of the product and will be more likely to buy it."

This forms the basis of your experiment which we'll talk about shortly.

It should be noted that after all the research, you'll probably end up with lots of ideas of what to test. This is fine but you should prioritize the tests you feel could yield the highest return and be the easiest to implement.

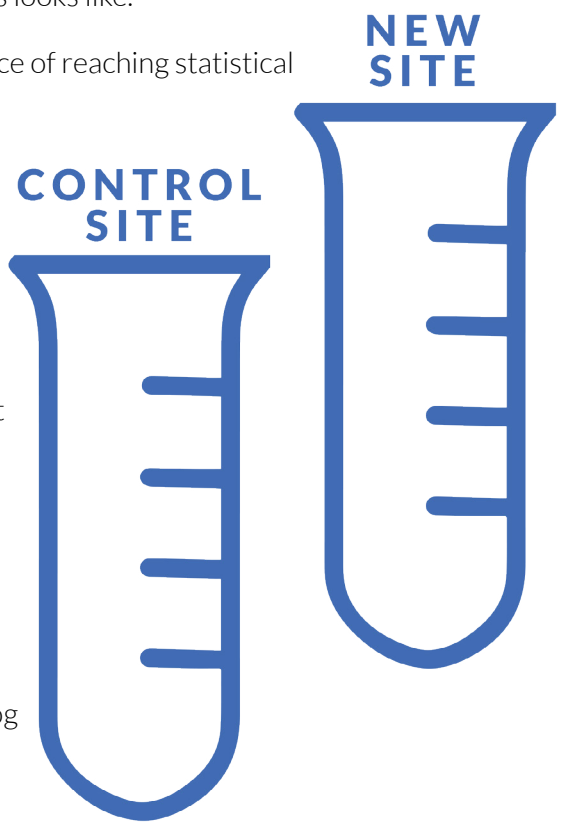
Step 2: Experiments

Step 2 - Experiments

Now that you have your hypothesis, it's time to put it to the test and see if it's correct. There are a few principles you need to bear in mind when running a test: Make sure that you're very clear on what you're testing and what success looks like.

You need a decent amount of traffic to a live test in order to stand a chance of reaching statistical significance.

Decide how much traffic you want to send to the experiment page. You'll need to split traffic between the original page (known as the control) and your new version. If you have enough traffic, you may want to only send a small percentage of this to the new version in order to help reduce the risk if the test fails.



Keep the new design on-brand if possible – getting sign-off from relevant stakeholders within the company is crucial here.

Some tools (we'll talk about a few below) allow you to make changes to a website dynamically without changing the website code. If you're doing this, make sure to browser test first as some changes may display differently depending on the browser being used.

If you'd like to get a bit more in depth on CRO tests, take a look at this blog post by Will Critchlow.

Tools for CRO experiments

The tool we use most at Distilled is Optimizely which allows us to do A/B and multivariate testing. There are a few alternatives out there such as Visual Website Optimizer which is a very similar tool. Both are paid but have free trials so you can have a play around first before committing to the cost. These tools also help you see whether a result is statistically significant too which saves you the job of having to work it out manually.

If budget is very tight, consider a feature of Google Analytics called content experiments which allows you to split traffic between multiple URLs. It works fine but requires a lot more work on your part.

Step 3: Review

Once a test has run its course, you should be able to see whether it was successful or not. There are three possible outcomes after a CRO test:
Conversion rate improved – you win!

Conversion rate decreased – obviously this isn't what we want but the reality is that this will happen sometimes

Conversion rate remained same

Essentially though, it all comes down to asking yourself – was my hypothesis correct? You may have a range of other statistics and data to look through, but it all comes back to this question.

If the test was successful, you need to work on deploying the changes to the website permanently. If you used Optimizely or Visual Website Optimizer then the successful design is not actually live on the website and a developer will be needed to implement the new code. This may take a while but in the meantime, you can send 100% of traffic to the successful version of the page so that the website starts seeing the improvements in conversions straight away across the whole site.

This isn't a long term solution though. Ideally you need to implement the changes properly rather than relying on third party software to direct traffic to the successful design.

And there you have it! For more guidance on CRO, check out this section of Distilled's Resources page. Good luck!

Wrap up. Making the Math Work

This eBook presents dozens of options for improving engagement online. It's not meant to be a single project guide, but rather a companion for ongoing site optimization in the long term. We hope you take away a sense that improving engagement has no single key or

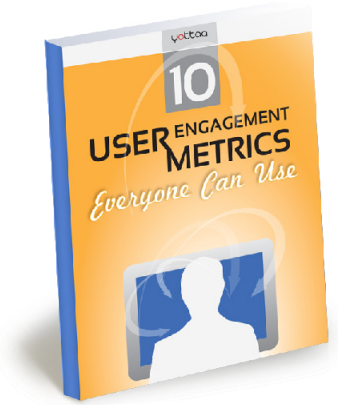
silver bullet. It requires an approach that accounts for each portion of the "quick + right + quality" equation. If you're just embarking on a strategy of improving engagement on your site, there are doubtless going to be a number of people in your organization who have to buy in.

But the results will speak for themselves.

Want to learn more about tracking engagement?

Click below to download our free eBook on the

10 Engagement Metrics Everyone Can Use.



Yottaa is a tool for website owners and marketers to manage, optimize, and secure user experiences on mobile and desktop.

We prove our service's ROI during a trial period: our customers see conversion rates soar up to **20% within 2-3 weeks.**

Go to www.yottaa.com/prove-it to learn more.