GUIDE

Web Experimentation: The ultimate buyer's guide

Optimizely

Contents

The intro

So. You're in the market for a new web experimentation platform. Or maybe you think it's about time you joined the club of successful digital leaders who use experimentation to raise the bar over and over again.

Either way, we're the world leader in experimentation. Heck, Optimizely even invented the thing. So we've put together this specialist buyer's guide to help you understand, select, and implement the technology you need to optimize your digital experiences.

> Like the sound of deeper user engagement? Higher conversion rates? And continuous improvement through data-driven strategies? Read on...

This clear, comprehensive guide draws on our long track record of supporting digital success for hundreds of organizations across dozens of sectors. You're going to discover all the detailed comparisons, practical tips, best practices, expert insights and real-world examples you need to make a well informed business decision — and take your online presence to a whole new level.

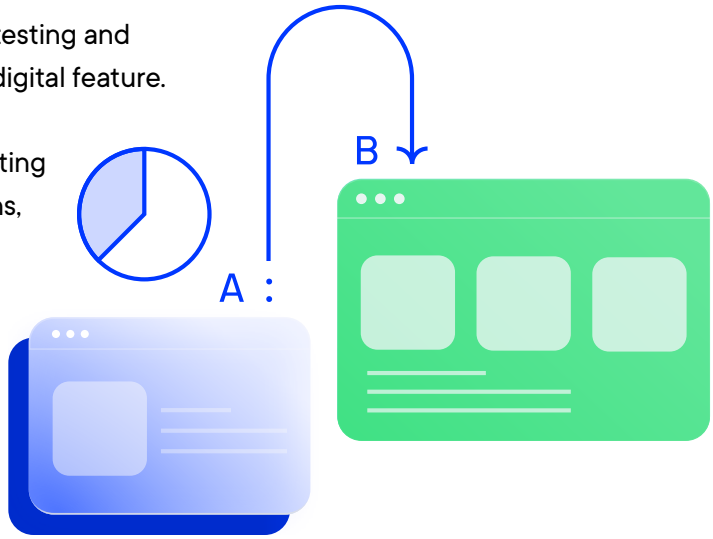
01

Defining web experimentation

To get started, let's quickly make sure we all know exactly what we mean by 'web experimentation' AKA A/B testing AKA split testing.

Web experimentation is basically a systematic approach to testing and optimizing different versions of a webpage, web element or digital feature.

Let's take a webpage for example. The process involves creating multiple variants of the page with different layouts, or designs, or content, or functionality, or whatever. You then randomly display these variants to different segments of visitors.



By analyzing the behavior and interactions of users with each variant, you can understand which one performs most effectively against your chosen metrics. That way, you can release the variant you know works best while eliminating the risks of rolling out a new feature blind.

On the other hand, you're going to find that, sometimes, none of them work as planned. But even then you're still a winner. Because if you do have to go back to the drawing board, well... you've avoided releasing a dud and you now know for sure what doesn't work — so you've gained some great insight to shape your next iteration.

Web experimentation in a nutshell

Web experimentation lets you test one idea against another (or a series of alternatives) to find out which one performs better in terms of user engagement, conversions, or other key metrics.

The 7 key steps in web experimentation

01 **Hypothesis creation:** Generating ideas to improve performance based on user behavior or business goals.

Tip: Usability and UX heuristics are often referenced to help kickstart ideas. Jakob Nielsen's 10 Usability Heuristics is a good example. And no, we don't receive commission.

> *(***JARGON ALERT*** Heuristics are common principles or guidelines to make your website work better.)*

02 **Variant development:** Working together to think up, create, and proof the content you'll use for the different versions of the web page or element you're planning to test.

03 **Audience targeting:** Ensuring your variants are EITHER randomly displayed to users to avoid bias, OR deliberately shown to specific segments to achieve personalization.

04 **Data collection:** Tracking user interactions and collecting data gold on key metrics like click-through rates, conversion rates, bounce rates, and dwell time.

05 **Results analysis:** Comparing the performance of your variants to identify which one comes out on top. And remember, if none of them work you still walk away with valuable insights.

06 **Implementation:** Rolling out the successful changes on a permanently basis... until you discover a new concept that works even better.

07 **Repeat steps 1 – 6.**

To cut to the chase, web experimentation is all about making continuous improvements to your digital presence by understanding user preferences and optimizing web experiences accordingly.

Why does web experimentation matter anyway?

In our digital world, no part of modern life is left untouched by the web. We use it to connect, discuss, browse, buy, teach, learn, complain, research, review, work, play...

When you think about it, pretty much every aspect of society has been transformed into a digital experience in one way or another.

User preferences and behaviors shape the way we build these experiences because their feedback, their preferences, and their expectations set the direction of travel. Your success depends on creating the web experiences that tick all the right boxes for all the right people.

Web experimentation is designed to help you do that, using real-world data to roll out change you know is going to make a difference and enhance your user experience, increase engagement, and boost conversions.

02

The what, how, and why of various test types

Test type #1: A/B Testing

What it means: Comparing two versions of a webpage or element to find out which performs better.

How it's used: Making simple changes such as headlines, images, buttons, or layouts.

Why use it: Provides clear, actionable insights on the impact of single-variable changes.

For example: Comparing a blue call-to-action button against a green one to see which has a higher click-through rate.

Test type #2: Multivariate Testing (MVT)

What it means: Testing multiple variations of several elements simultaneously to understand the impact of each combination.

How it's used: Comparing complex pages with multiple interactive elements.

Why use it: Identifies the most effective combination of elements on a webpage.

For example: Testing different combinations of headlines, images, and buttons to see which combination yields the best conversion rate.

Test type #3: Multi-Page (Sequential) Testing

What it means: Testing changes across multiple pages in a user journey.

How it's used: Optimizing funnels or sequences of actions such as checkout processes.

Why use it: Enhances the entire user journey rather than just a single page, leading to more comprehensive improvements of an experience.

For example: Testing a new layout across the home, product, and checkout pages to evaluate the overall impact on sales.

Test type #4: Split URL Testing

What it means: Redirecting users to different URLs to compare the performance of completely different pages.

How it's used: Experimenting with entirely new designs or overhauls that cannot be implemented within a single URL.

Why use it: Allows for radical redesigns and comprehensive comparisons of completely different page layouts.

For example: Comparing the performance of a current homepage with a newly designed home page hosted on a different URL.

Test type #5: **Personalization**

What it means: Customizing content and experiences for different user segments based on specific criteria.

How it's used: Enhancing user experience by delivering relevant content to different audience segments.

Why use it: Increases user engagement and satisfaction by delivering more personalized content and experiences.

For example: Showing different homepage content to new visitors versus returning customers based on their browsing history and behavior.

Test type #7: **Real-Time Segmented Testing**

What it means: Delivering targeted content based on the user's geographic location, behavior, or time of day.

How it's used: Running experiments on different customer segments.

Why use it: Enhances relevance and effectiveness of your experiment by tailoring it to a specific segment of your audience.

For example: Displaying different promotions or content based on demographic data, behavioral data, transactional data, profile, device, or location.

Test type #6: **Client-Side Testing**

What it means: Running experiments directly in the user's browser using JavaScript.

How it's used: Testing frontend changes that are easy to implement and track on the client side.

Why use it: Makes it fast and simple to test frontend changes and tweak the user interface.

For example: Testing different styles and content placements using JavaScript modifications.

The 4 big advantages of web experimentation

1. **Data-driven decision-making**
   Make informed choices based on real-world user behavior and preferences, reducing risk and maximizing impact.

2. **Improved user experiences**
   Continuously make your website better and better by staying on top of — and meeting — user needs.

3. **Increased conversions**
   Optimize the web elements that drive key actions, such as sign-ups, purchases, or clicks.

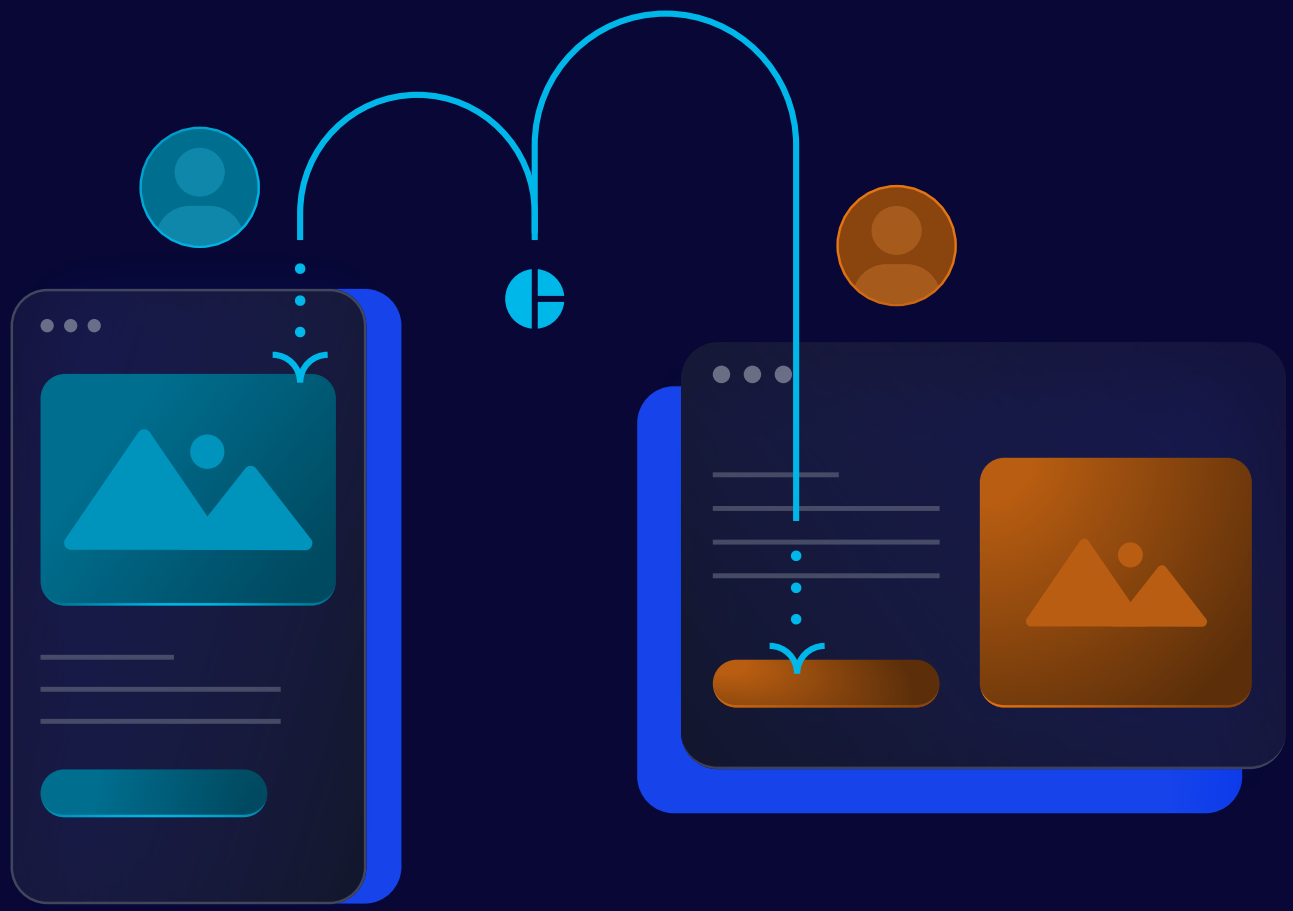
4. **Reduced risk**
   Test new ideas and features on a small scale before committing to a full scale rollout.

The 3 big benefits that come with Optimizely Web Experimentation

1. **Campaign optimization**
   Conversion rate optimization helps you squeeze more value out of every campaign.

2. **Experimentation**
   Learnings are scientifically validated through statistical significance to drive in long-term uplift.

3. **Personalization**
   Web personalization improves the customer experience and allows for always-on engagement.



03

Lucky for some: The 13 essential features you want to look out for

1. **Flexible test types:** Choose from trusted methodologies to vet hypotheses and define conditions for experiment activation. Includes A/B/n, multi-page, multivariate, multi-armed bandits, and personalization campaigns.
2. **Visual editor:** Simplify experiment creation with a feature-rich, WYSIWYG-style editor and enable users to make changes and preview them without coding.
3. **Extensions:** Accelerate experiment building through these templates, with developers creating them in HTML, CSS, or JavaScript, and users applying them via the visual editor.
4. **Stats engine:** Ensure high statistical rigor and provide easily interpretable results using Optimizely's proprietary model for rapid, sound achievement of statistical significance.
5. **Stats accelerator:** Target and test user segments based on their real-time behavior, delivering relevant experiences in under 90 seconds.
6. **Real-time segments:** Rolling out the successful changes on a permanently basis...until you discover a new concept that works even better.
7. **Edge delivery:** Enhance site performance by applying changes at the edge before your webpage reaches visitors, empowering flicker-free test delivery and faster page load.
8. **Analytics integrations:** Build seamless connections to data sources and integrate with third-party tools to streamline data consistency and reduce event costs.
9. **Multi-armed bandits:** Use artificial intelligence to identify top-performing variations and automatically allocate traffic to maximize engagement and conversions.
10. **AI-powered 1:1 personalization:** Ensure high statistical rigor and provide easily interpretable results using Optimizely's proprietary model for rapid, sound achievement of statistical significance.
11. **Reporting for experimentation:** Quantifies experimentation program performance using KPIs and provides detailed charts and figures for internal reporting, enabling data export and filtering.
12. **AI-powered enhancements:** Utilize AI in your workflow to generate variation ideas, provide variation and experiment summaries, and learn from Optimizely support documentation, streamlining your experimentation lifecycle.
13. **Experiment collaboration:** End-to-end program management from ideation to reporting for all of your optimization initiatives.

04

Experimentation in the wild: Reviews and use cases

Web experimentation isn't an interesting theory to write guides about. It's a proven scientific method designed to continually create 'better' — and we have thousands of real life examples to show how effectively it works. But since you probably have better things to do than read them all, we've selected a handful of case studies to give you a taste of what web experimentation can do for you.

"We have seen a 51% increase in product views, a 70% increase in add to basket and a 9% increase in returning users which is absolutely fantastic! We're over the moon with the outcome."

Michael Nong
Head of E-Commerce / NEW ERA

"The user-friendliness of Optimizely is evident in how I approach hiring. I never consider prior Optimizely knowledge a prerequisite because it's remarkably easy to learn. If someone has a background in web development and a basic grasp of AB testing concepts, they can quickly grasp the page targeting, event tracking, and utilization of the on-page editor, all of which are seamlessly integrated within the Optimizely UI. "

Nina Bayatti
Director of Conversion Rate Optimization / ClassPass

Case Studies:
Real-world examples of businesses using our tools effectively.

True Botanicals
Quip
KLM
Channel 4
Brooks Running
Tails.com
Tapestry
Calendly
Prezzee
Road Scholar

Customer webinars:

SKY
YOOX
William Hill
Bloom & Wild
Virgin Media

05

How to buy smart

Okay, so we've got to the point where you understand the ins and outs of web experimentation and you've made the decision to invest in the right kind of technology. This guide is obviously a thinly disguised plug for Optimizely One — the world's leading digital experience platform. At the same time, we understand there is such a thing as business integrity. So sure, we know you need to go out there and make up your own mind. These resources will help to guide your buying decision.

01 Determine your specific needs and goals

Elevate your web experimentation with our Request for Proposal (RFP) template, purpose-built for web experimentation projects. Streamline the vendor selection process, gather all the information you need, and make sure you come to the right platform for your requirements.

What's in the RFP?

- **Project Overview:** Background and strategic vision for your web experimentation project.
- **Scope of Work:** Detailed requirements & expectations.
- **Technical and Functional Requirements:** Specific technical specs and functionality needs.
- **Vendor Qualifications:** Desired expertise & experience.
- **Evaluation Criteria:** Clear criteria for assessing proposals.
- **Submission Guidelines:** Instructions for proposal submission.

Download the RFP Template.

02 Try before you buy

Its obviously pretty essential to give any potential platform a test drive, so once you've put your shortlist together, ask for a demo.

And okay, sure..., since you're asking we can show you how Optimizely Web Experimentation works right now. We're recognized as the world's fastest A/B testing platform, ready to help you reveal high-value customer insights and create high-performing websites in the blink of an eye.

Put Optimizely to the test right now and try a demo.

06

The 8 steps to a successful experimentation program

Not so long ago, we were pretty excited to release our shiny new Evolution of Experimentation Benchmark Report. Based on research from 127,000 qualified experiments run on our platform, the report offers a rich and exhaustive source of insights into launching and growing a successful program of web experimentation.

If you'd like to get your hands on a free copy, you can download it here.

To give you an idea of the contents, we've crunched the findings down into these 8 steps. If you'd like more detail on any or all of them, we've added a reference to the relevant page in the report.

STEP 1

Define your experimentation framework

Define your goals
Identify exactly what you want your overall program to achieve, whether more conversions or higher revenues. Then establish the objective of each experiment. This could be as varied as increasing user engagement, improving conversion rates, or enhancing the all-important user experience.

Choose your metrics
Select the primary metrics that align with your business objectives and have relevance to your industry (who'd have thought?). Page 16

STEP 2

Run the highest possible volume of experiments

Frequency
Aim to run experiments regularly. As a benchmark, average programs run 2-3 tests per month, while top performing programs run at least 8 per month. The more tests you run, the faster you learn — even if the test is simple. Page 9

Scalability
Develop the capability to run multiple experiments simultaneously and gain insights faster. This will often mean securing development and/or engineering support, so coffee and donuts might be a good idea. Page 9

STEP 3 Test multiple variations

More variations
Less isn't always more. When it comes to web experimentation, tests that feature more than two variations tend to yield higher impacts. This allows you to explore multiple changes simultaneously and identify the best-performers. Page 9

Advanced tools
Take advantage of powerful tools that help accelerate statistical significance to reduce the traffic demand and speed up results. Stats Accelerator is a good place to start. Page 38

STEP 4 Build in audience targeting

Segmentation
Identify and prioritize your primary audience segments, then develop personalization strategies that will improve relevance and engagement. Page 32

Personalization
Make the most of audience targeting to introduce personalized experiments, customize experiences for specific segments, and generate significantly higher impacts. Page 33

STEP 5 Leverage analytics and data platforms

Analytics integrations
Integrate advanced analytics tools and Customer Data Platforms (CDPs) to gain deeper insights into user behavior and experiment performance. Page 35

Data-driven decisions
Use detailed analytics to design your experiments, interpret the results, and make sure your decisions are based on solid real-life data. Page 36

STEP 6

Conduct a diverse range of tests

Simple and complex tests

Balance your experimentation program with a mix of simple changes (low-hanging fruit) and more complex, high-impact tests (big swings).
Page 28

Navigation tests

Remember to incorporate navigation testing, which is often overlooked and under-used but can actually provide significant insights into user flow and behavior. Page 19

STEP 7

Promote a culture of experimentation

Positive terminology

Encourage a positive culture — for example by referring to unsuccessful tests as 'learners' rather than 'losers' to foster a mindset of continuous learning and improvement. Page 50

Developer involvement

Make sure you continue to gain reliable access to developers to implement and support your experiments, ideally running one experiment per two-week sprint cycle. Page 42

STEP 8

Customize your governance

Tailored governance

Customize your experimentation governance to fit your company's specific needs, culture, and internal resources. There is no one-size-fits-all approach.
Page 47

Cross-functional collaboration

Build cross-functional teams incorporating members from different departments to ensure a diverse range of perspectives and expertise. This will also strengthen your experimentation culture. Page 48

And finally... a few ideas for maximizing the impact of experimentation

01

Document learnings

Keep a detailed record of each experiment including hypotheses, methods, results, and learnings. This documentation will serve as a valuable reference for future experiments. Page 50

02

Iterate and improve (and repeat)

Use the insights gained from each experiment to help shape the next one. A continuous cycle of iteration is essential for refining and improving your web experience. Page 50

03

Share your insights

Communicate the results and learnings from your experiments across the entire organization to build knowledge, win buy-in, and strengthen a culture of experimentation. Page 50

04

Stay updated

Keep up with the latest trends and technologies in experimentation to make sure your program stays relevant and delivers results. Page 51

07

Talk technical to me, baby: A glossary

It's not rocket science, but it's a science all the same. If you're new to the world of web experimentation, you're going to come across plenty of technical terms and unfamiliar phrases that could easily result in a blank stare or a quick change of subject if you aren't ready for them.

So we thought it might be an idea to include a little glossary of the most common jargon you're likely to come across. Just click on any link to get yourself up to speed and we'll have you talking tech with the best of them in no time.

- A/B testing
- User flow
- Conversion rate
- Conversion rate optimization
- Customer journey mapping
- Bounce rate
- CTA (Call-to-action)
- Click-through rate
- Landing page optimization
- Multi-armed bandit
- Multivariate testing
- Statistical significance
- User journey map
- Website optimization

08

Conclusion

Web experimentation really would be worth its weight in gold — if it actually weighed anything, that is. Choosing the right platform and implementing a well thought out testing program can be the catalyst for a virtuous circle of continuous improvement.

Experimentation delivers the data you need to make informed decisions. And that in turn leads to deeper engagement, higher conversions, and better user experiences. Plus, you achieve all that with way less risk, since you know that the changes you roll out have already been shown to work in real world conditions.

> Sure, we might be biased, but Optimizely is the world leader in web experimentation.

In fact...

(and we don't want to blow our own trumpet... oh come on, who are we kidding? Sure we do!)

...we were recently name the leading Digital Experimentation Platform (DXP) leader by The Forrester Wave™: Digital Experience Platforms, Q4 2023 report.

They ranked us #1 above the likes of Adobe, Sitecore and all MACH vendors.

Want to find out why?

Want to take your digital experiences to the next level?

Let's arrange a personalized demo.

09

The little library of digital experimentation

If this guide has not only whet your appetite for the power of digital experimentation, but ignited an insatiable passion for it, we can help.

Because we're delighted to offer you free access to this specially curated collection of articles, books, and websites to help you master the subject and impress colleagues, friends, and family alike!*

- Big Book of Experimentation
- Evolution of Experimentation - 127.000 Experiments
- How digital leaders are thinking about personalization in 2024
- Culture of Experimentation
- Conversion best practices
- Digital Experimentation Playbook
- Science behind digital experimentation
- A/B Testing: How to start running perfect experiments and make data-informed decisions

And if you have any questions about anything in this guide or in the resources above, please feel free to drop us a line: optimizely.com/contact

**This is absolutely not guaranteed*

Optimizely is on a mission to help people unlock their digital potential. We do that by reinventing how marketing and product teams work to create and optimize digital experiences across all channels. With Optimizely One™, our industry-first operating system for marketers, we offer teams flexibility and choice to build their stack their way with our fully SaaS, fully decoupled, and highly composable solution. We help companies around the world orchestrate their entire content lifecycle, monetize every digital experience and experiment across all customer touchpoints – all through Optimizely One™, the leading digital experience platform that powers every phase of the marketing lifecycle through a single, AI-accelerated workflow.

Optimizely has nearly 1500 employees across our 21 global offices and has 700+ partners. We are proud to help more than 10,000 businesses, including H&M, PayPal, Zoom, and Toyota, enrich their customer lifetime value, increase revenue and grow their brands. At Optimizely, we live each day with a simple philosophy: large enough to serve, small enough to care.

Learn more at optimizely.com