

THESSALONIKI
digital analytics
MEETUP

How to start A/B testing and not regret it later

16 Dec 2019

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#DigitalAnalyticsGR

About the meetup

- Largest active community in SKG
- Talks around:
 - Data analysis
 - Data collection
 - BI software / Reporting
 - AI / Machine learning
 - Data automations
- Networking with professionals & companies
- We ❤️ questions, discussions and new ideas
- Open invitation for speakers

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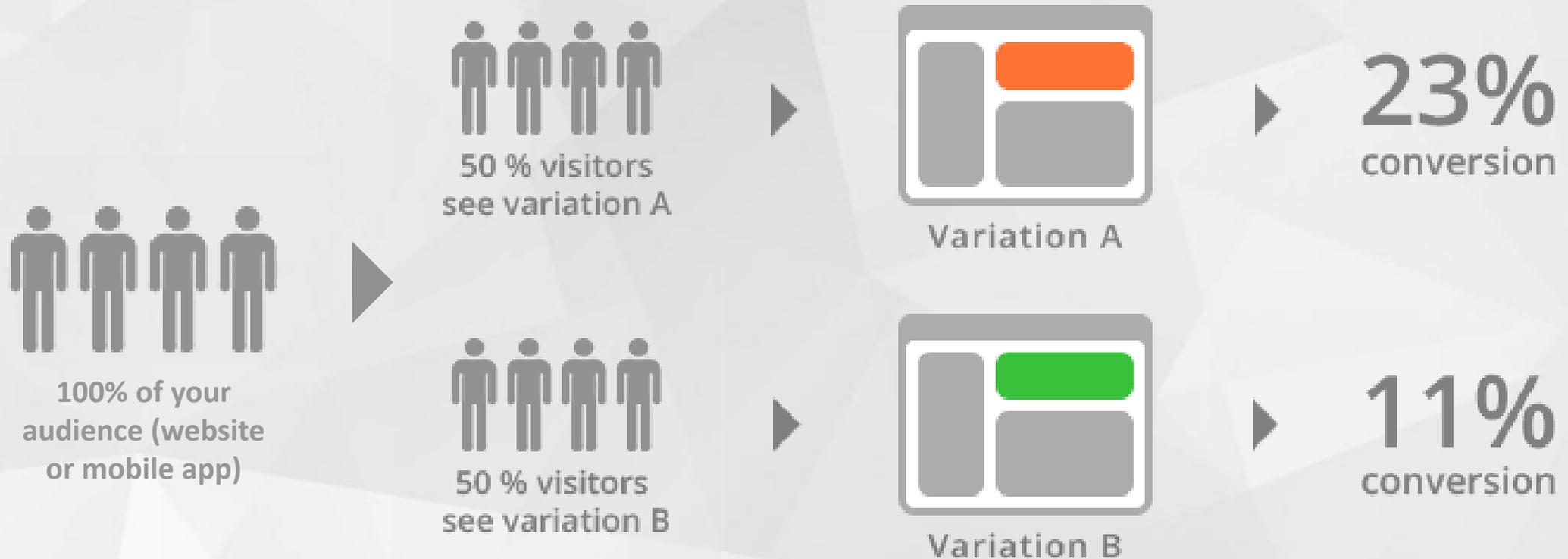
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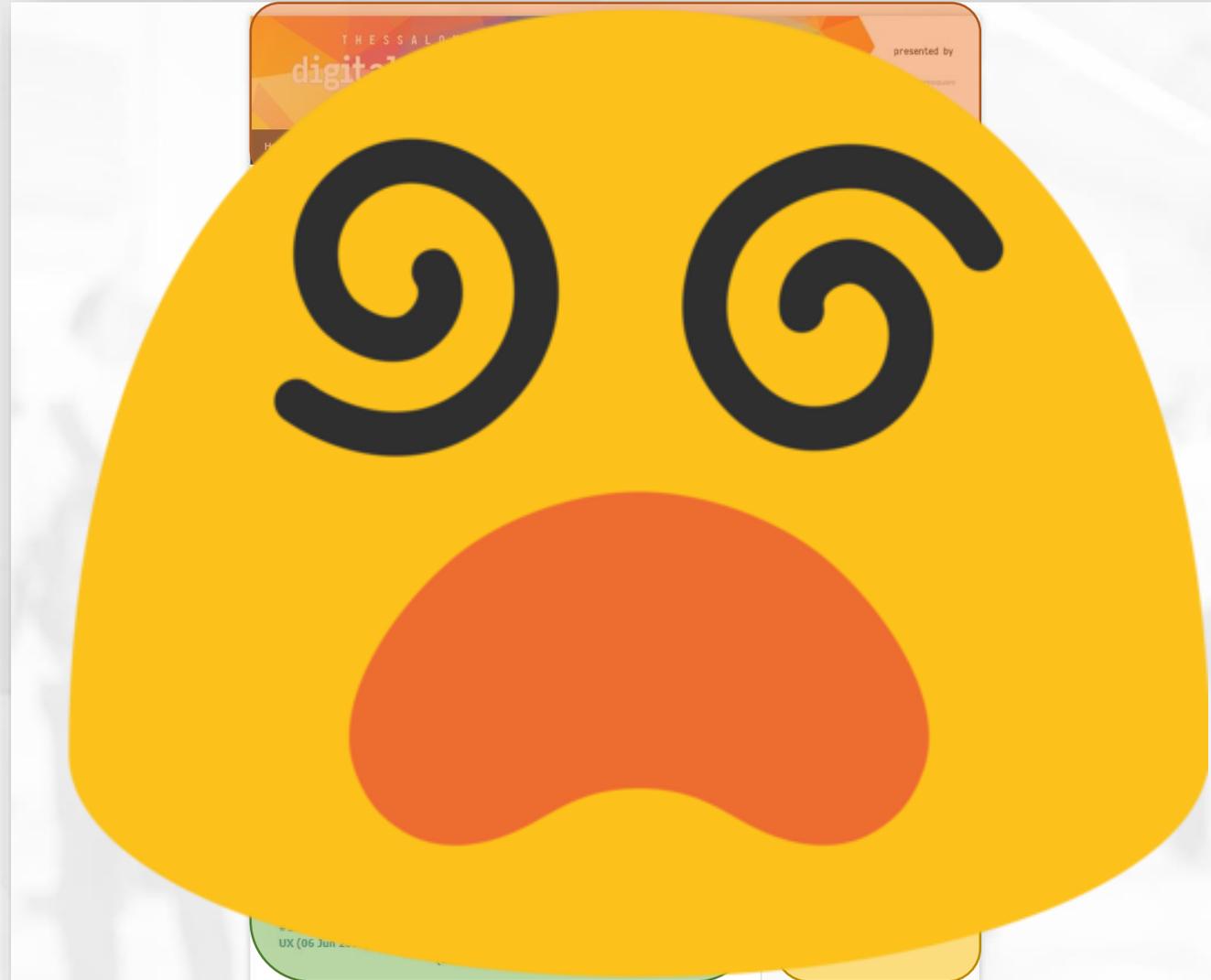
medium.com/digital-analytics-meetup-thessaloniki

A/B testing introduction

What is A/B testing



What is Multivariate or A/B/N testing



A/B testing in the real world

CNN BUSINESS Markets Tech Media Success Perspectives Videos

Instagram is now testing hiding likes worldwide

By [Kaya Yurieff](#), CNN Business

Updated 1643 GMT (0043 HKT) November 14, 2019



A/B testing use cases

- Design changes
- Content variations
- Website personalization
- Quality assurance (QA) process
- Search Engine optimization
- Functionality changes

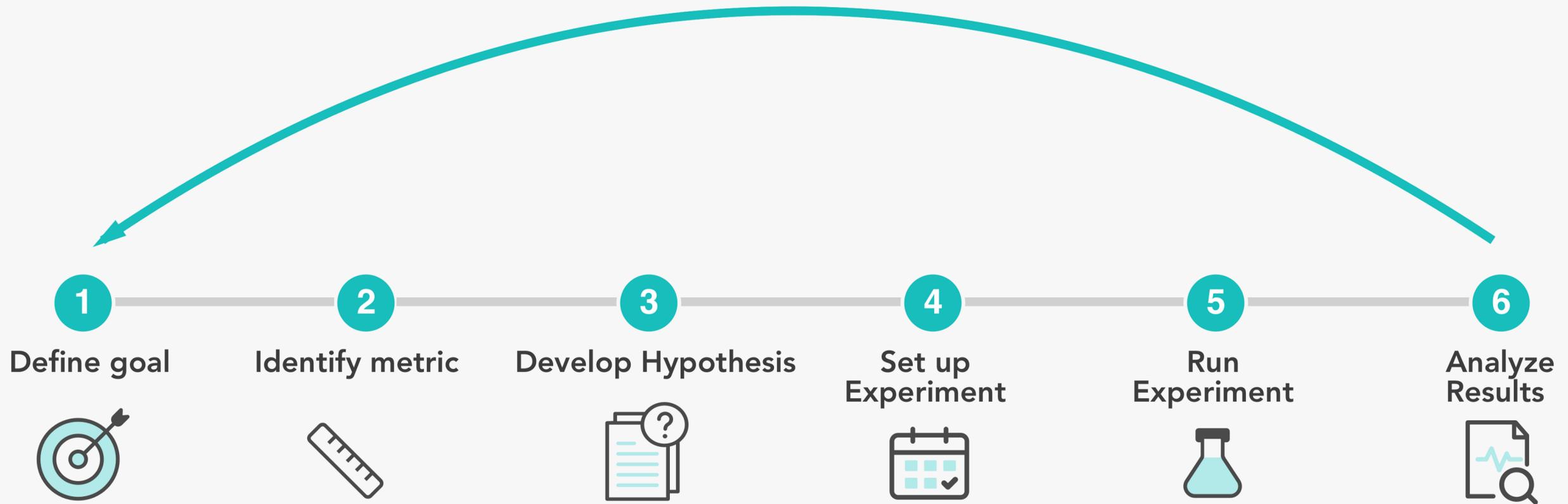
The importance of A/B testing

- Intuition can be wrong, use traffic to justify changes
- 30% of AB tests are usually successful
- Changes can be difficult to analyze
- Make your traffic data actionable
- Make changes that increase profit

The difficulties of A/B testing

- A/B testing is statistics and statistics needs volume
- Data maturity and clear KPIs are necessary
- Time-consuming (research, design, development, testing)
- Amount of changes to include in the test
- Data analysis – Hidden messages (e.g. device variation)
- Prepare to prove yourself wrong 😊

Typical A/B testing steps



Running an A/B test - Install

1. Agree on the assumption and variations

2. Install the script

```
<script type="text/javascript"  
src="//script.crazyegg.com/pages/scripts/1234/5678  
.js" async="async"></script>
```

Running an A/B test - Audience

Baseline Conversion Rate

4%

Your control group's expected conversion rate. [?]

Minimum Detectable Effect

20%

The minimum relative change in conversion rate you would like to be able to detect. [?]

Statistical Significance

95%

95% is an accepted standard for statistical significance, although Optimizely allows you to set your own threshold for significance based on your risk tolerance. [?]

Sample Size per Variation

9,000

A/B testing tools

Common features to expect

- **A/B testing**

The process of setting up and then randomly comparing two or more variations of a web page. The subjects are equally split into groups and each group is consistently shown a specific variation of the web page, until a conclusive result is reached.

- **MVT testing**

Create, deploy, measure, and manage multiple page elements, to run multivariate experiments. Multivariate tests, is the process of testing variations of multiple page elements on the live website, like running numerous A/B tests at the same time. It is useful when considering multiple variables on the same page and trying to find the best combination.

- **Reporting**

Dashboards and reporting options available to monitor progress and results of tests. Allows users to export reports in different formats, share insights with other team members and monitor multiple A/B tests.

Common features to expect

- **Behavioural targeting**

Serving tailored experiences to visitors based on actions, business rules, and their characteristics, previous behaviour and visit context. Behavioural targeting tools allow specific visitor segments to get served with personalized experiences (notifications, discounts etc.) using custom rules or predictive algorithms.

- **Recommendations**

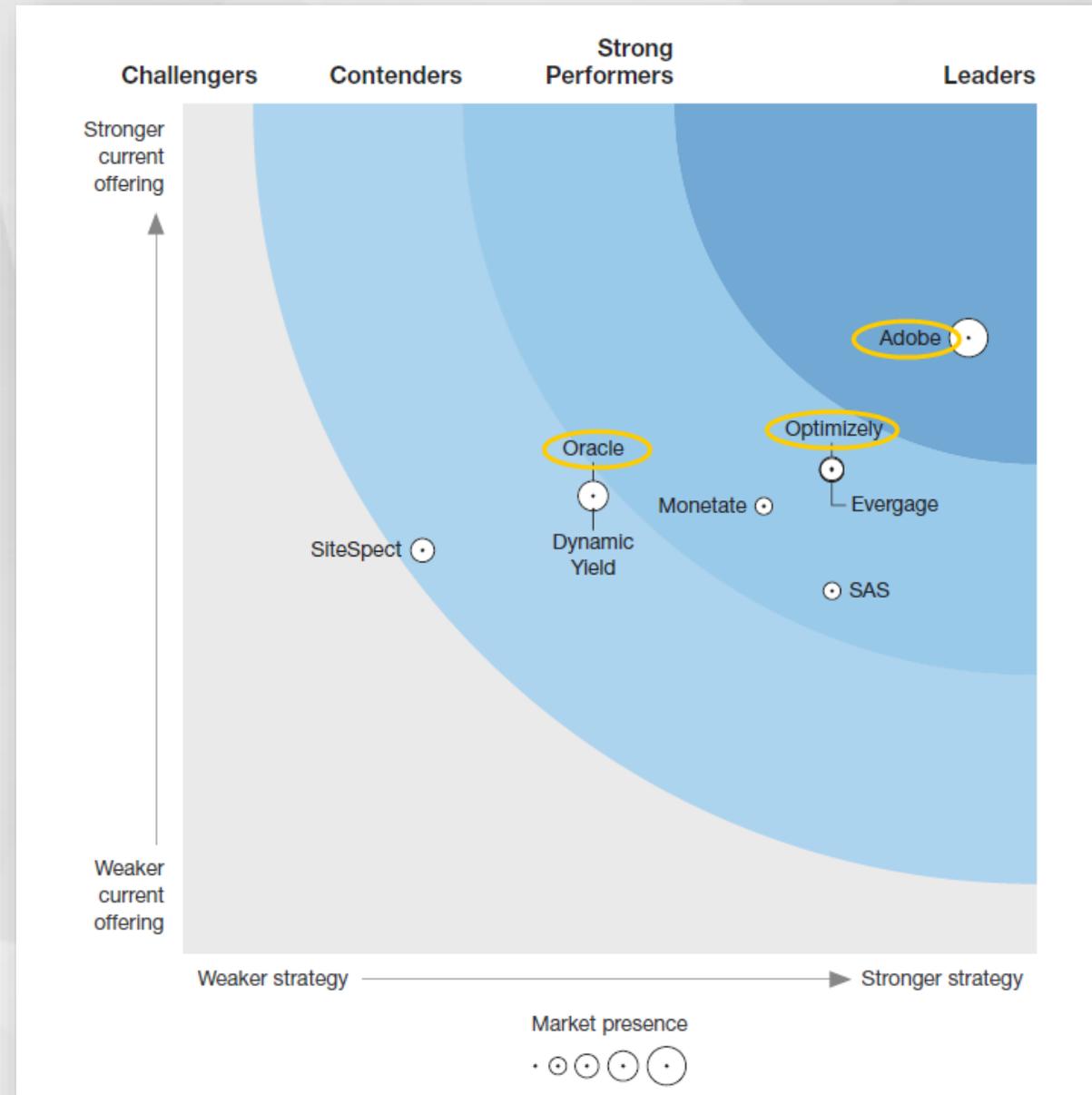
Include suggestions of related content based on business rules, machine learning algorithms, or a combination of both. This feature is traditionally used for showing visitors complimentary / similar products or to encourage cross-sell conversions. This feature is enabled by analytics tools, collecting behavioural visitor data.

Common features to expect

- **Scalability**
Ability to host multiple tests concurrently and enable the users to manage them easily from the interface. This also includes features allowing the tool to be used by large teams in a global organizations (e.g. granular user rights ,access logs, changes logs etc.).
- **Supporting services**
Type of support (e.g. dedicated account manager, online ticketing system) and level of quality (Streamlined approach, personalized recommendations) for the supporting services provided by each vendor for their tools.
- **Analytics integration**
Integration support of A/B testing tool with web analytics platforms used by Sony (i.e. Adobe analytics) and other analytics services (e.g. heatmaps, screen recording, VoC etc.).

Forrester report

- **Current offering strength**
Key criteria: online testing features, behavioural targeting, recommendations, and platform experience.
- **Strategy strength**
Vendor's product vision, execution road map, performance, supporting services, and partner ecosystem.
- **Market presence size**
Vendor's digital intelligence revenue, number of enterprise customers, and average deal size.



Executive Summary

- **Adobe Target – Enterprise features for Adobe users**

Scores well across all experience optimization techniques, with impressive testing and targeting capabilities. Tightly integrated with Adobe's ecosystem, offering options for advanced testing scenarios, by combining input from Adobe's stack. Suitable for enterprise clients with complicated requirements.

- **Sitecore – Basic A/B testing as a plugin**

An option tightly integrated with Sitecore's CMS, with limited impact to the website's performance. Suitable for small/medium sized clients with very basic testing and targeting needs. Limited integration options, relying on customizations.

- **Optimizely – All around player with numerous integration options**

A strong performer both in testing and targeting all-around player. It offers a full stack to support advanced tests and also allows integrations with most common tools in the market. Room for improvement in reporting and recommendations.

- **Oracle Maxymiser – Powerful but challenging**

Functionalities, with good performance across all key areas, hidden behind an interface with a steep learning curve. Users are attracted to Oracle's industry reputation and full-service technology suite. Most users have trouble finding their way around, without support from the vendor.

- **Crazyegg – A/B testing for dummies**

A low cost, simple to use solution. It provides basic features and automates several process which can be a testing barrier for small and medium sized organizations. Enterprise clients will be limited by the testing and integration options provided by the tool.

- **Google Optimize 360 – Entry level features for Google analytics users**

A simple to use solution, built to allow easy testing and targeting for clients of Google's ecosystem. Provides native integration with Google's ecosystem, but very limited in integration options with 3rd party tools. Able to support most common testing and targeting scenarios.

Comparison Table



	Adobe Target	Optimizely	Maxymiser	Google Optimize	Sitecore	Crazyegg
A/B testing	●	◐	◑	◒	◓	◔
Behavioural targeting	◑	◐	◓	◔	◕	○
MVT testing	◑	◒	◓	◒	◕	◒
Analytics integration	◑	●	◑	◔	◕	○
Recommendations	◓	◔	◕	◔	◕	○
Reporting	●	◐	◑	◒	◓	◒
Performance	●	◐	◓	◒	●	◒
Scalability	●	●	◑	◒	◕	◔
Security	●	●	●	●	●	●
Usability / Extensibility	◑	◒	◓	◒	◕	◔
Supporting services	◑	◐	◑	◔	◕	◒

Find the winner!



I want to play a game



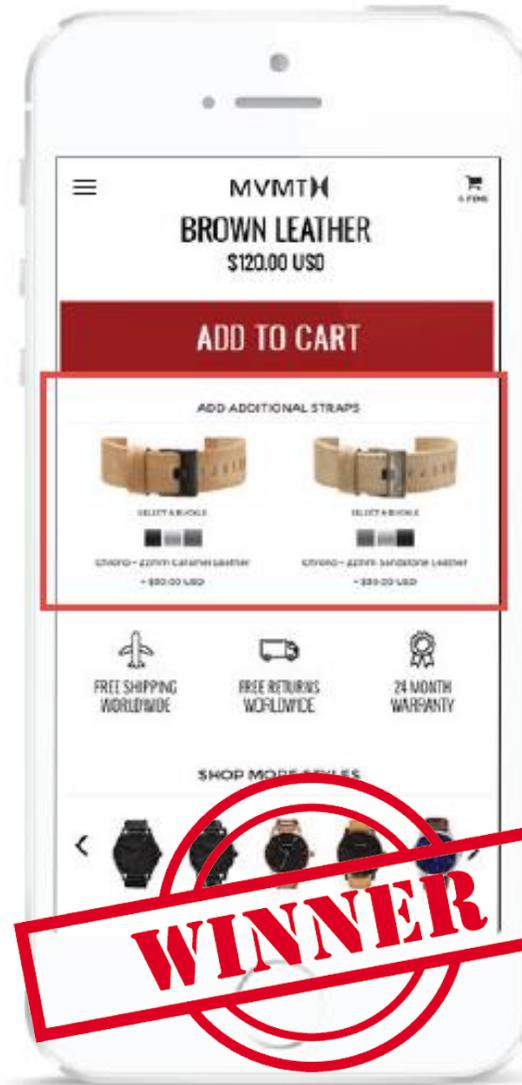
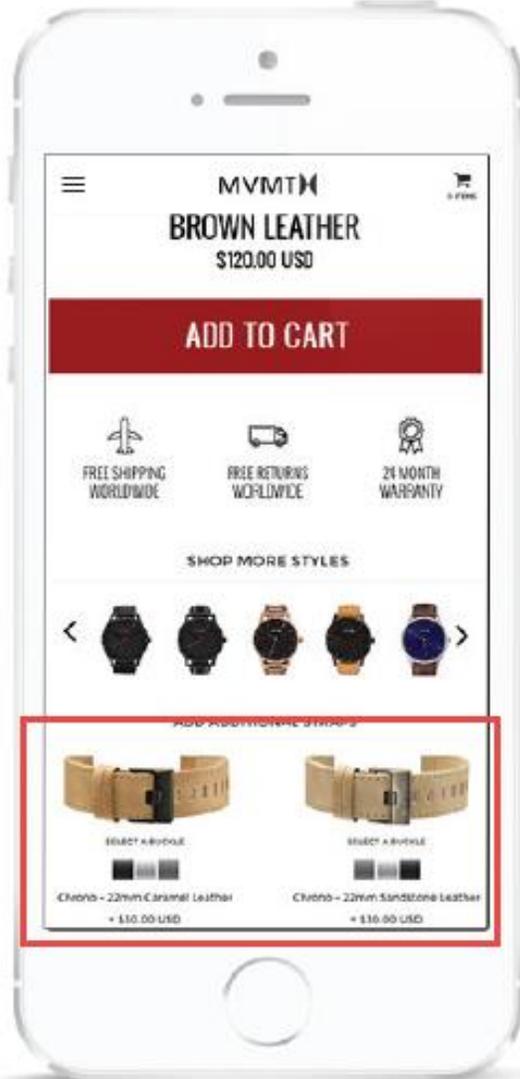
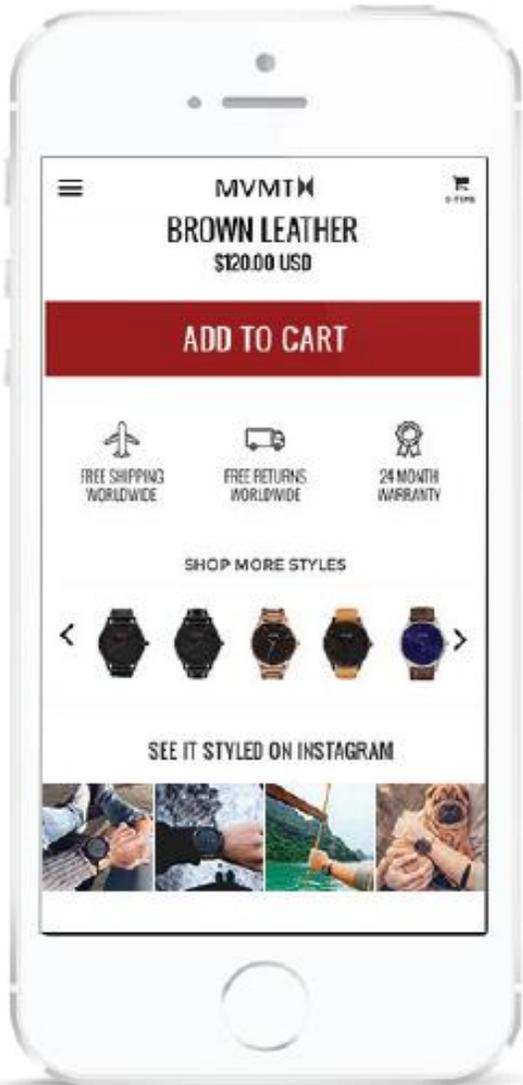
ELECTRONIC ARTS™

INDUSTRY:
Retail

EXPERIMENT:
Promotional Offer Display

43.4%

Increase in revenue



MVMTM

INDUSTRY:
Retail

EXPERIMENT:
Product Cross-Sell Experiment

5.5%

Increase in Sales for
Mobile Shoppers

2.2%

Increase in Sales for
Desktop Shoppers

Design Configuration Software Services Accessories

Customise your VAIO

Processor
The CPU is the main engine of your PC. Faster CPUs with more cache allow increased processing power.

- Intel Core™ i5-4200U 1.6 GHz with 3 MB L3 Cache
- Intel Core™ i7-4800U 1.8 GHz with 4 MB L3 Cache **+£ 100.0**

Operating system
From casual home use to high end secure systems, choose the Windows OS that suits you best.

- Windows 8 64-bit
- Windows 8 Pro 64-bit **+£ 80.0**

Battery
Introducing a new battery concept that lets you work, surf, film and play without power. The standard battery provides power for up to 7 hours, while up-configure the Premium model. It's powered by a 6-Cell, but optional battery that can be charged separately from the PC, and added without removing the original battery. The second battery attaches without having to switch off the PC, enabling standby to last 18 hours.

- Battery life up to 7 hours
- Battery life up to 18 hours **FREE**

Storage
Need more space to store all your personal content? Choose your storage capacity.

- 128 GB SATA Flash SSD (1 x 128 GB, Solid State Drive)
- 256 GB SATA Flash SSD (1 x 256 GB, Solid State Drive) **FREE**
- 512 GB SATA Flash SSD (1 x 512 GB, Solid State Drive) **+£ 200.0**

Memory
Increase your computer's performance and be able to run more applications at the same time by increasing your memory (RAM).

- 4 GB 1600 MHz DDR3, 8000MHz 1.3 8900-001-00000

Your customised VAIO
Total Price **£ 859.00** inc. VAT
£ 793.00 ex. VAT
3% APR financing available

Delivery between 27 September & 14 October

SVP1221CBE **£ 859.00**

Design: Black

Configured

- Intel Core™ i5-4200U 1.6 GHz
- Windows 8
- Battery life up to 7 hours
- 128 GB SATA Flash SSD
- 4 GB 1600 MHz DDR3, 8000MHz
- 257 mm x 205 mm x 16 mm
- No Ethernet Wi-Fi & VGA design

Also Included

- HD/TVi output
- 2 years warranty
- Bluetooth v4.0
- MP3 technology included
- 1 AC Adapter
- Backlight keyboard
- No security features
- 6400 HD Graphics MHD
- Windows Link-EXT 600 (HDMI)
- Angler (3000711)
- 2x USB 3.0
- No Touch Screen

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[View full specifications](#)

Design Components Software Services Accessories

Customise your VAIO Components

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- 256 GB SATA Flash SSD (1 x 256 GB, Solid State Drive) **FREE**
- 512 GB SATA Flash SSD (1 x 512 GB, Solid State Drive) **+£ 200.0**

Your customised VAIO Pro 13
Total Price **£ 859.00** inc. VAT
£ 793.00 ex. VAT
3% APR financing available

Delivery between 27 September & 14 October

SVP1221CBE **£ 859.00**

Design: Black

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- Windows 8 64-bit
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- 4 GB 1600 MHz DDR3, 8000MHz
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SONY

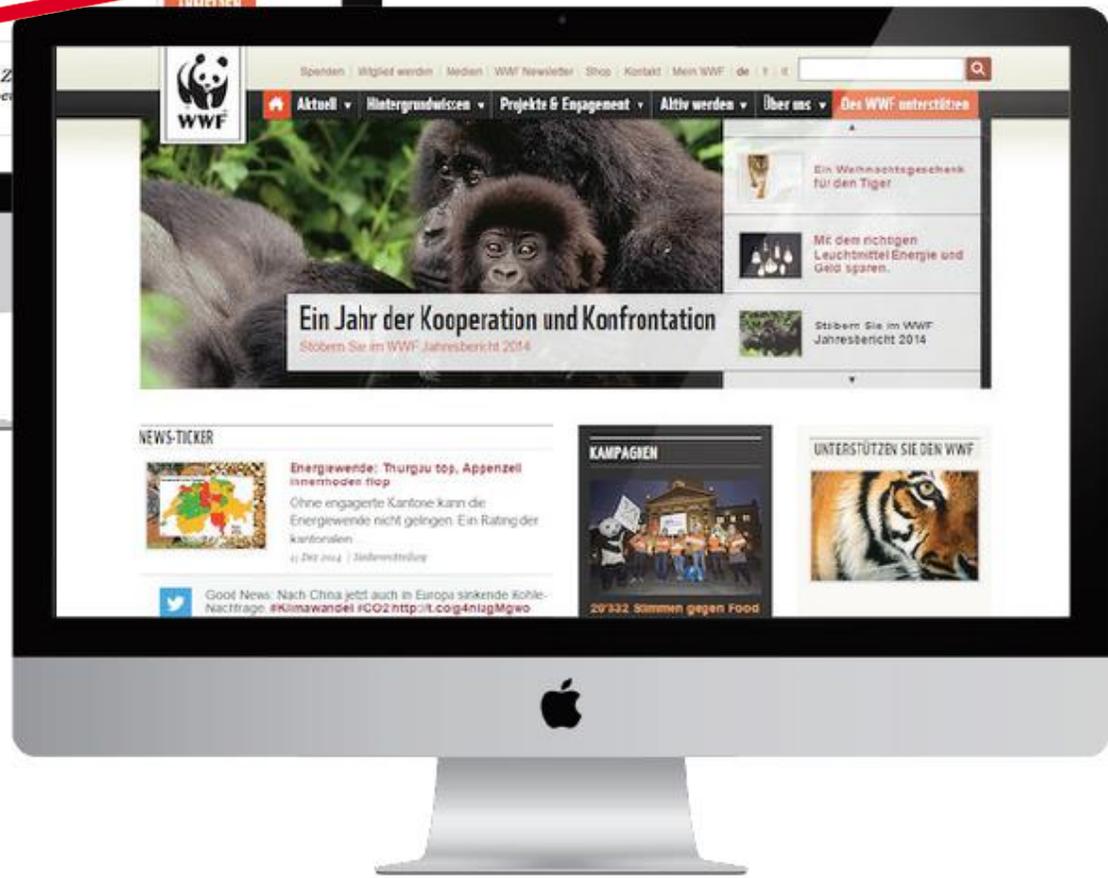
INDUSTRY: Retail

EXPERIMENT: Checkout Configuration Page

20.6%

Decrease in Funnel Abandonment

Source: Optimizely – The big book of experimentation



INDUSTRY:
Nonprofit

EXPERIMENT:
Homepage Simplification
and Focus

360%

Increase in Homepage Traffic to Target Pages

Source: Optimizely – The big book
of experimentation

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Thank you

Panagiotis Tzamtzis

