

Challenges in Mobile Web Usability for an Ecommerce Company

@ blue tomato

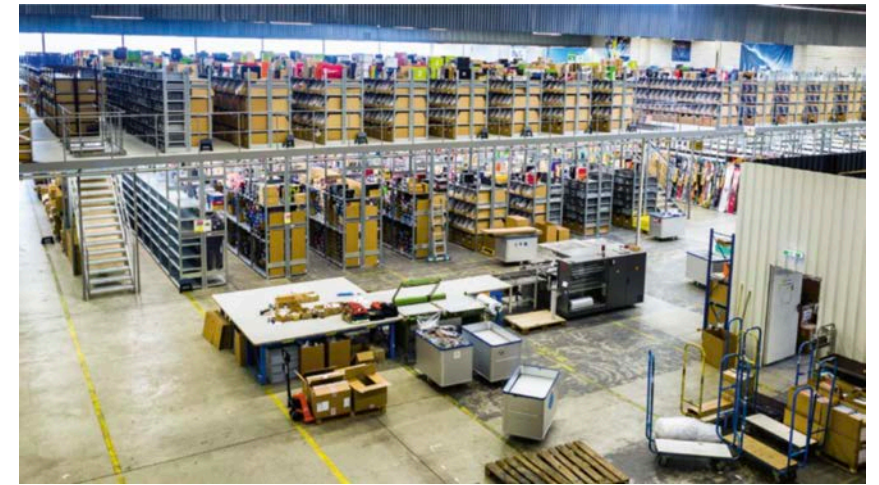


Blue Tomato

A person wearing a black helmet, yellow goggles, and a dark jacket is skiing down a snowy mountain slope. The skier is holding a pair of skis. The background shows a vast, snow-covered mountain range under a blue sky with light clouds.

- Retailer for Snowboard/Freeski, Skate and Surf Equipment and Fashion
- Founded in 1988 in Schladming/Styria
- First Online Shop in 1999
- Acquisition by US Company Zumiez in 2012
- 35 Stores in DE/AT/CH
- 550 Employees / 130 in Graz
- Leading Onlineshop for Snowboard and Freeski in Europe

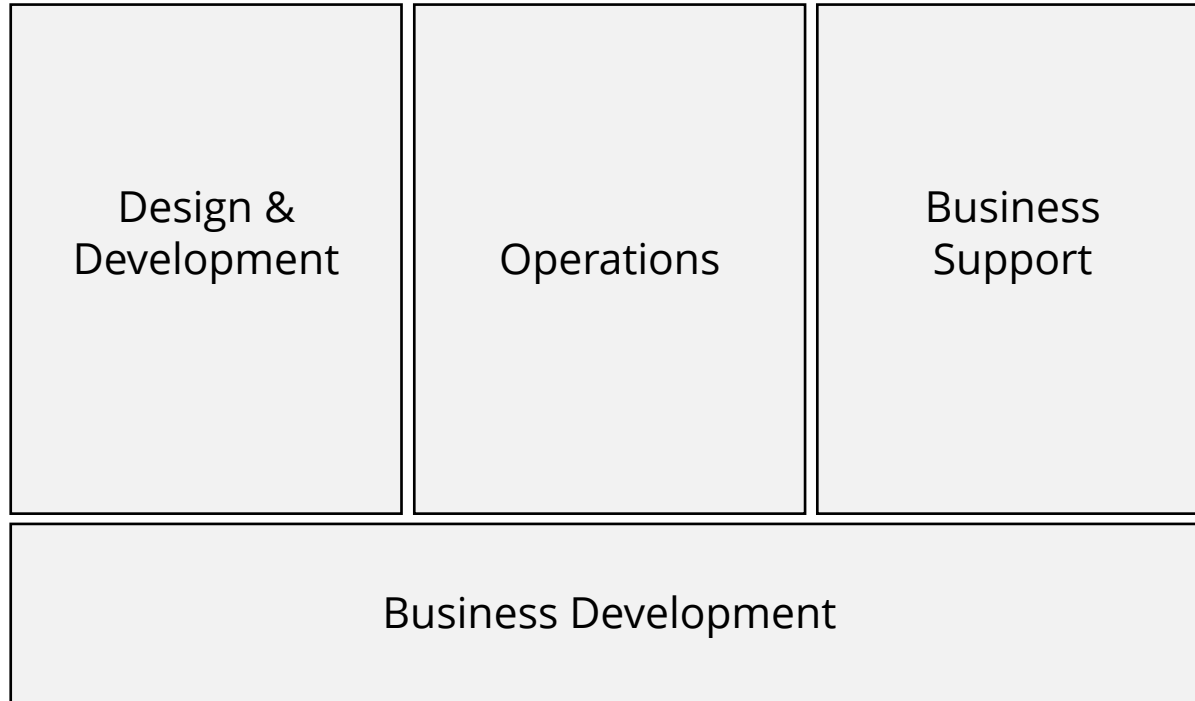
Blue Tomato



Webshop Development



Department @ Blue Tomato GmbH



Who we are





 **Andreas Augustin** 
andreas.augustin | 
raise and keep the webshop alive



 **Christian Froihofer** 
christian.froihofer



 **Iris Moustakidis** 
iris.moustakidis



 **Jakob Offenbacher** 
jakob.offenbacher

 **Manuel Penalosa** 
manuel.penalosa

 **Markus Tiefenbacher** 
markus.tiefenbacher

 **Philipp Ast** 
philipp.ast

 **Thomas Baer** 
thomas.baer |  Working rem
Operating things.

 **Wolfgang Bertl** 
wolfgang.bertl

 **Georg Vogetseder**  gvogetseder
conovaring

 **Bernd Zeimetz**  berndzeimetz 

 **Martin Jantscher** 
mjantscher |  Frohes Schaffen@WT
Software enveloper

 **Pavol Benovic**  pbenovic

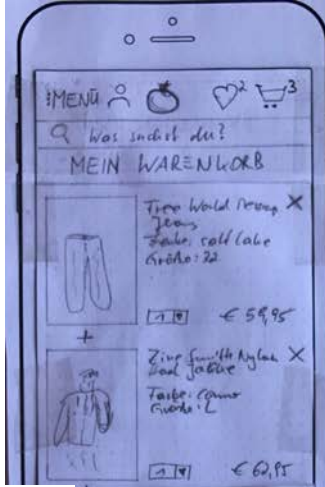
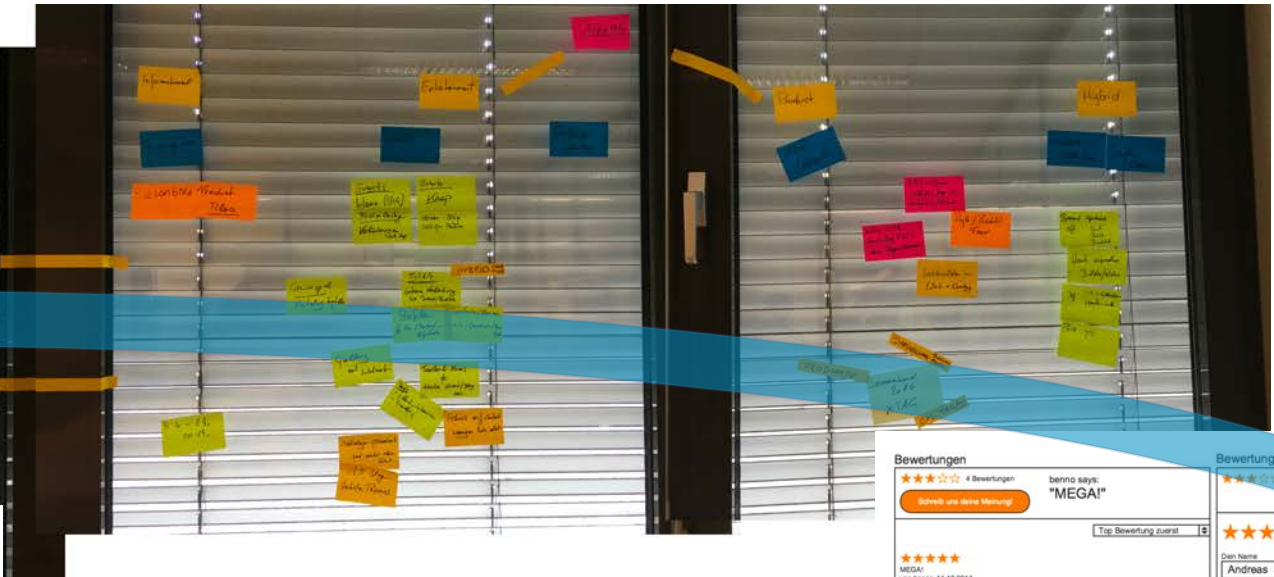
 **Johnathan Geiger**  jgeiger 

 **Gordon Czedik-Eysenberg**  geysenb
Frontend Developer

 **Michael Gissing**  mgissing 
Software Developer (ECO 13)

 **Daniel Kern**  dkern 
Product Owner

 **Niklas Meier**  nmeier 
SDQA



Video mit Caption



- Webshop Features
 - Allgemein
 - Content
 - Content Hub
 - Content Hub Roadmap
 - Content Hub User Stories
 - CBG: Buyers Guides User Stories
 - CLG: Link Generator User Stories
 - CNE: News/Story User Stories
 - CNE-1: User Story Hero Produktdarstellung
 - CNE-2: User Story Hand Picked Produktreihe
 - CNE-3: User Story Produktlisting (Fredhopper)
 - CNE-3: User Story Rich Relevance
 - CHU - User Story Rich Relevance Integration
 - CPA: Parks User Stories
 - CTE: Team User Stories
 - Win & Catalogue User Stories
- Content Hub Infrastruktur
- Content Hub Meetings
- Content Hub Releases
- CHU - Erledigt/Inaktiv

Pages / ... / CNE-3: User Story Rich Relevance

#	Überschrift	User Story
1		https://developer.richrelevance.com/JavaScript
2		https://developer.richrelevance.com/JavaScript_Integration/Feature_Integration/Page_Information
		https://developer.richrelevance.com/JavaScript_Integration/Feature_Integration/Refinements

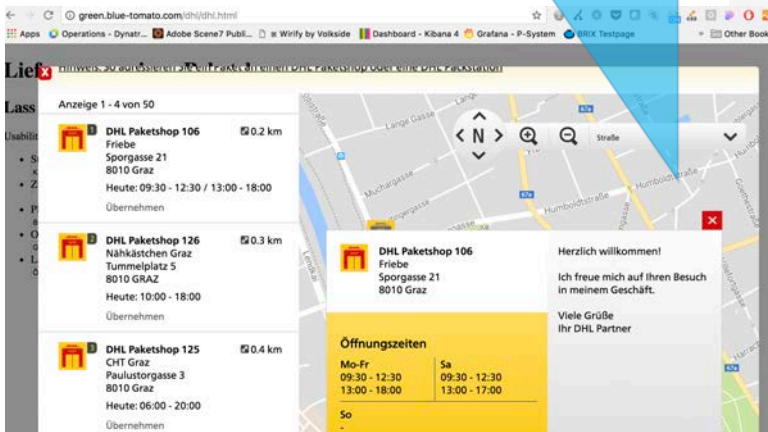


Fragen

Unten finden Sie eine Liste von Fragen, die aufgrund dieses Anforderungsdokuments angesprochen werden müssen:

Frage	Ergebnis
<input type="checkbox"/> Können die Properties vom Webshop verwendet werden? Integration vs. Live System	
<input type="checkbox"/> Berücksichtigung der Regionen	

Beispiel eine Request URL:

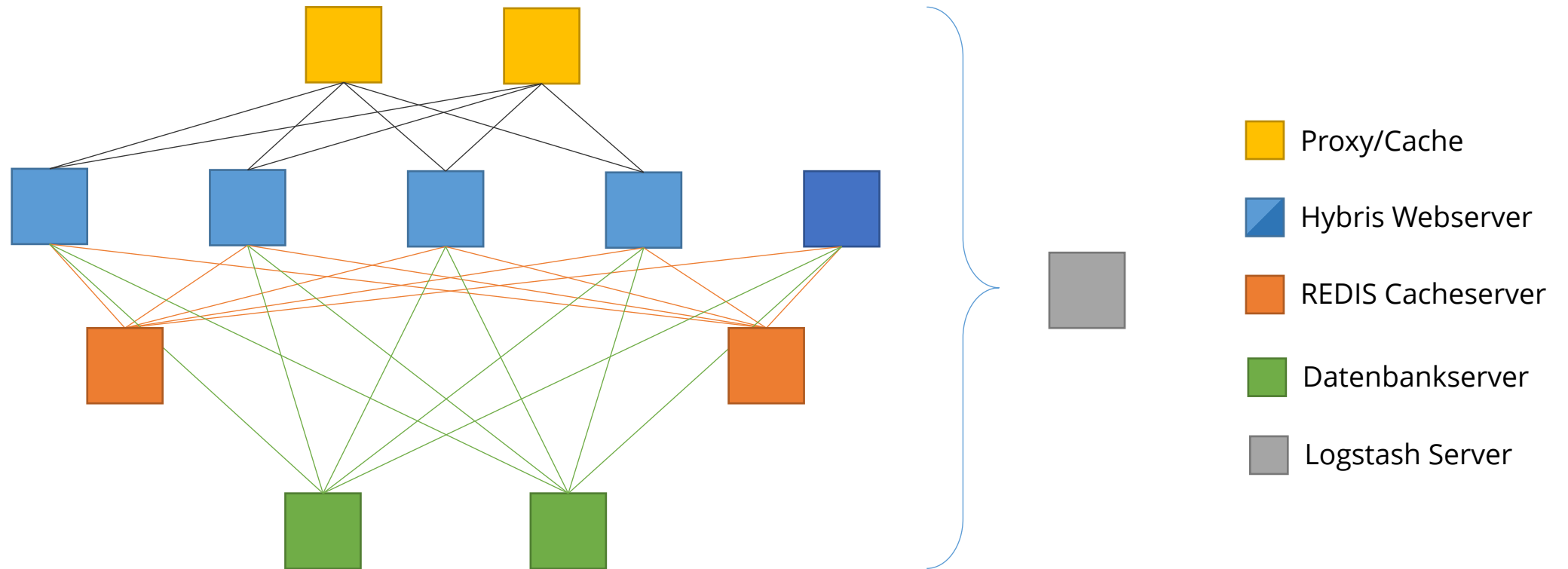


Dev-Stack

- Hybris Webshopsystem
 - Java Spring Webapplication
- Percona Database
 - High Performance MySQL
- Proxy
 - Varnish (HTML Cache)
 - HaProxy (Load Balancing)
 - Redis (Java Object Caching)
- Monitoring/Infrastructure
 - Puppet
 - Elasticsearch / Kibana
 - Grafana / Clickhouse



Webshop Operations – Core Part



Webshop Operations – Cloud Part

Rich Relevance
Recommendationengine

SDL Fredhopper
Product Search Engine

Amazon, Paypal, Wirecard, SÜ, ...
Paymentprovider

Adobe Scene 7
Media CDN (Video, 360°, ...)

Webshop System [y]

Optimizly
A/B Testing

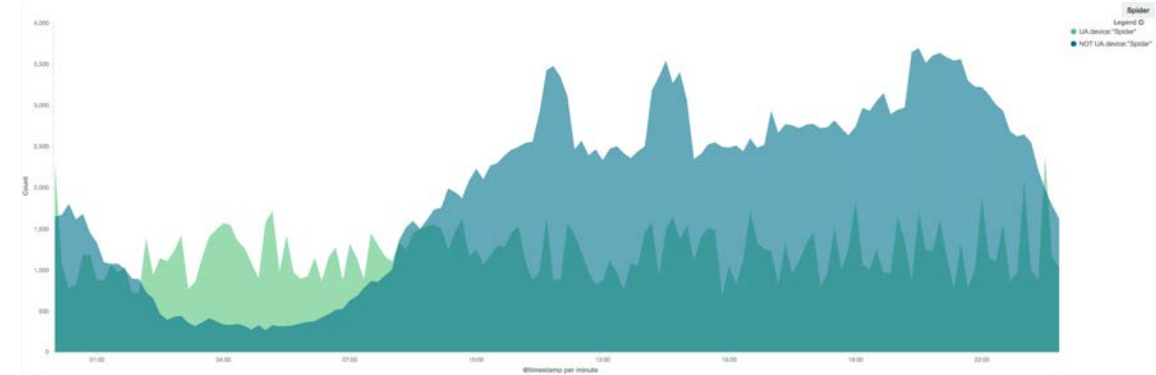
Emarsys
Mailing, Newsletter

The online business

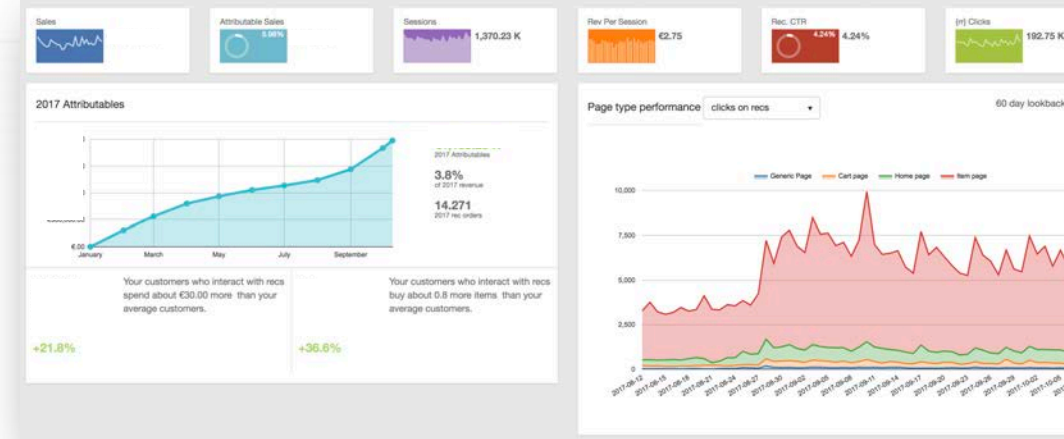
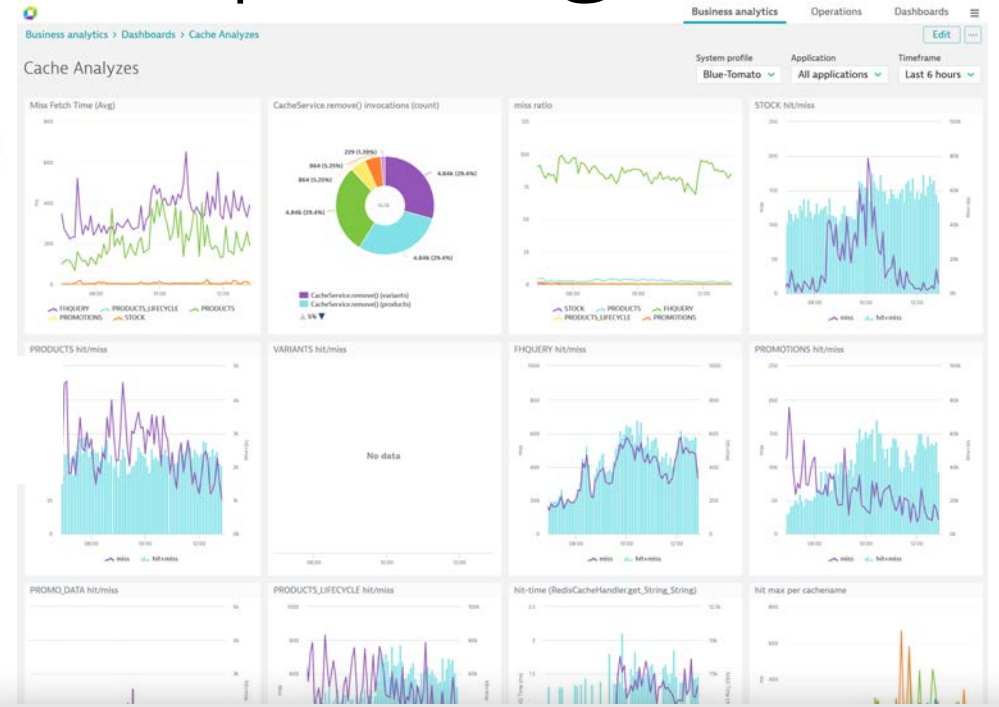
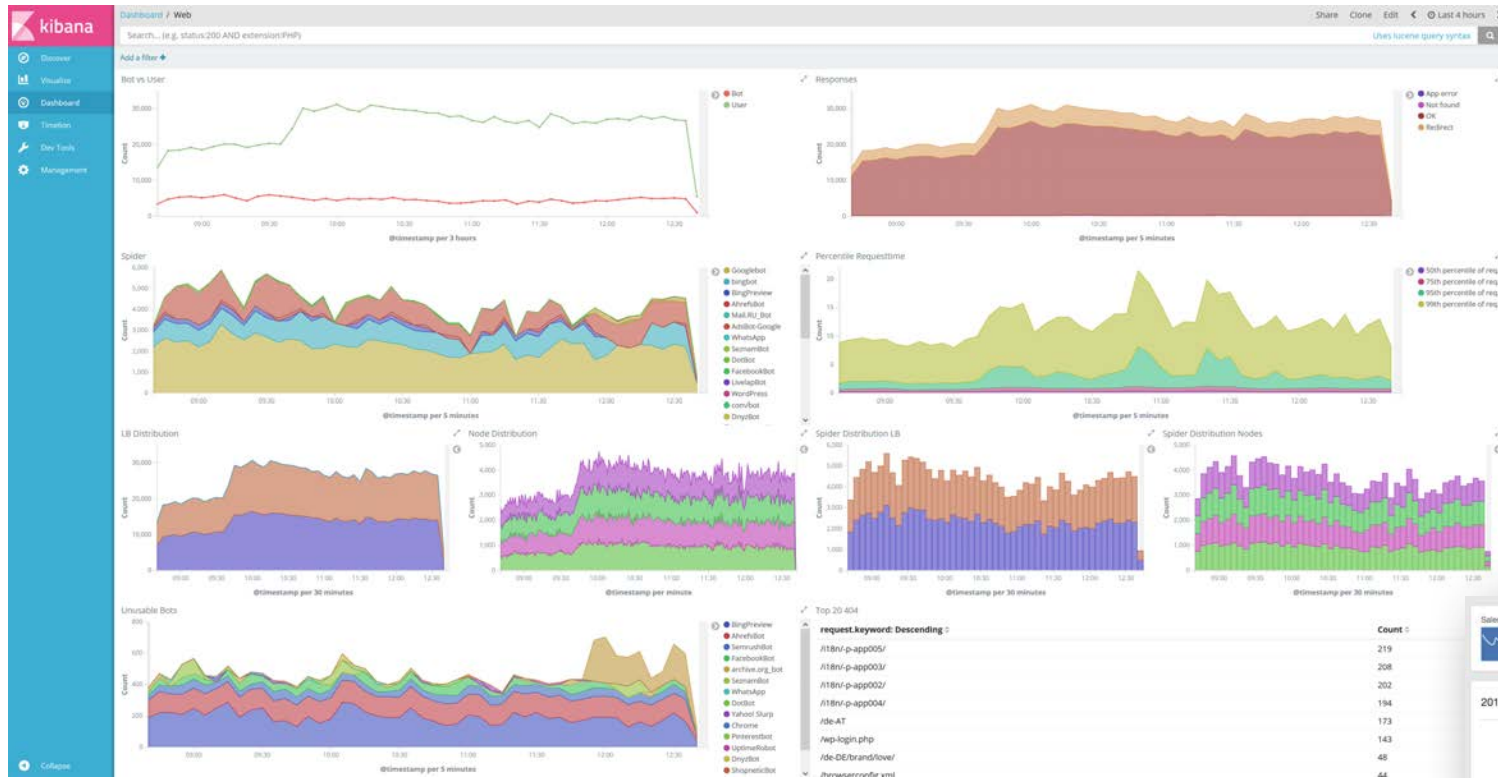
Blue Tomato Omnichannel Retailer

Webshop - KPIs

- Up to 120.000 Visitors a day
- 152 Mio Pagerequests/year
- 90% all requests < 300ms, avg. Pageloadtime +/- 4 sec
- over 50.000 products
- 14 languages / 60 delivery countries
- localized payment and delivery options
- thousands of orders processed daily




Continuous Monitoring and Improving



Understanding the Customer

21 TAGE RÜCKGABERECHT CUSTOMER SERVICE +43 3687 2422 3

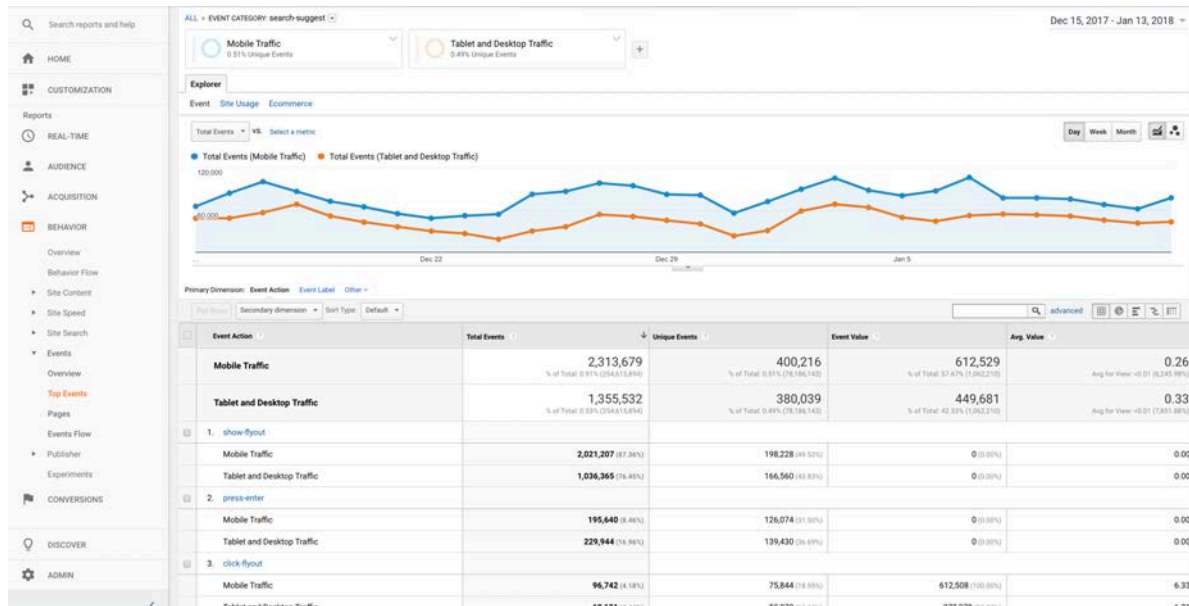


blue-tomato.com

MEN

- Burton in Alle Kategorien
- Burton in Snowwear
- Burton in Snowboard
- Burton in Streetwear
- Burton in Accessoires
- Burton in Taschen

burton custom



```
<ul class="actions">
  <li class="item">
    <a href="/de-AT/info/" id="headerHelp" class="menu-item icon-question track-click"
      data-category="header"
      data-action="click"
      data-label="help"><span
        class="visuallyhidden">Help</span></a>
  </li>
  <li id="headerAccount" class="item spacer">
    <a id="avatarLogin" class="menu-item track-click" href="https://www.blue-tomato.com/de-AT/account/"
      data-login="https://www.blue-tomato.com/de-AT/login/"
      data-category="header"
      data-action="click"
      data-label="login">
      <div class="w-icon"><span class="icon-avatar-summer"></span></div>
      <div class="w" style="margin: 0px 10px">
        <span class="loggedIn">Hallo, {username}</span>
        <span style="font-weight: bold">Mein Konto</span>
        <span class="loggedOut">Jetzt anmelden!</span>
      </div>
      <div class="w" style="line-height: 30px;"><span class="sprite-arrow01-grey"></span></div>
    </a>
  </li>
</ul>
```

Google BigQuery

COMPOSE QUERY

Table Details: ga_sessions_20171010 (2017-10-10)

Table Info

Table ID	bto-webshop-analytics-import:90309906.ga_sessions_20171010
Table Size	6.02 GB

```
SELECT fullVisitorId,hits.page.searchKeyword,hits.page.pagePath,hits.hitNumber FROM [bto-webshop-analytics-import:90309906.ga_sessions_20170709] WHERE hits.page.searchKeyword is not null AND...
```

Job ID: bto-webshop-analytics-import:bjjob_40c980d7_15d2d8713a9

Creation Time: Jul 10, 2017, 7:23:33 PM

Start Time: Jul 10, 2017, 7:23:33 PM

End Time: Jul 10, 2017, 7:23:34 PM

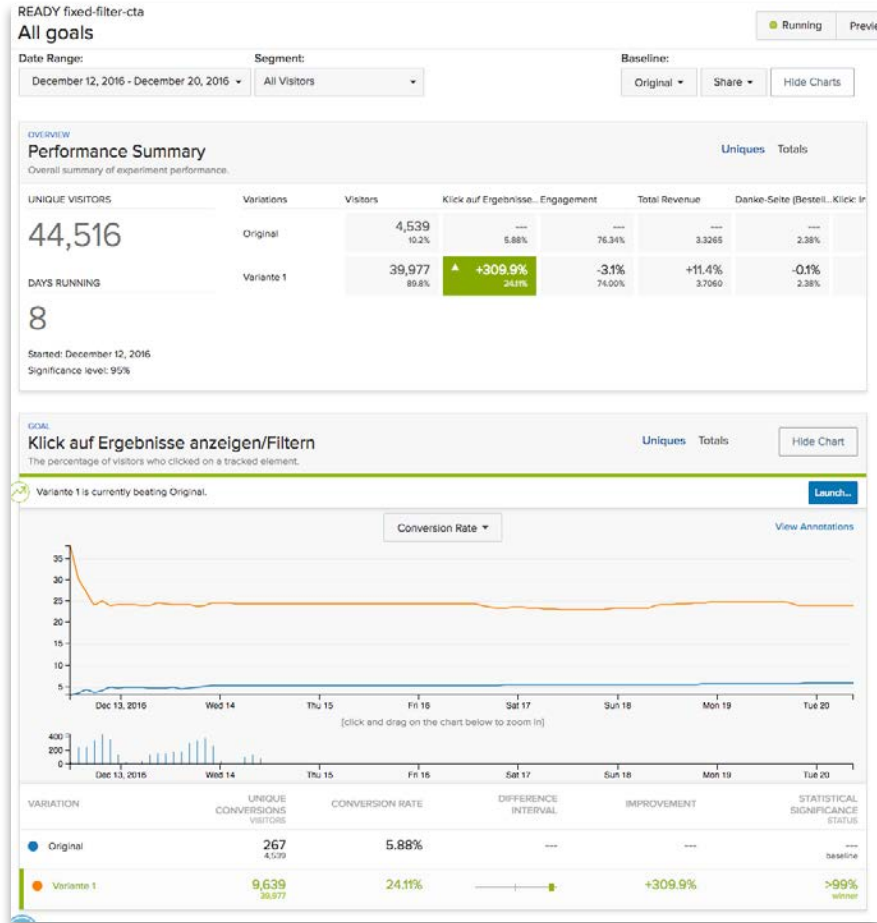
Bytes Processed: 215 MB

Bytes Billed: 216 MB

Billing Tier: 1

Destination Table: bto-webshop-analytics-import_80875ed7840156ed453093ae2fc88b10766d30e1.anon036cc015311376022084902938ac9cd6918b15f4

A/B Testing



- Snowwear-Features +
- Material-Features +
- Wassersäule +
- Atmungsaktivität +
- Fit +
- Öko +
- Preis +
- Verfügbarkeit +
- Sortieren Beliebteste +

ERGEBNISSE ANZEIGEN

ALLES AUFHEBEN

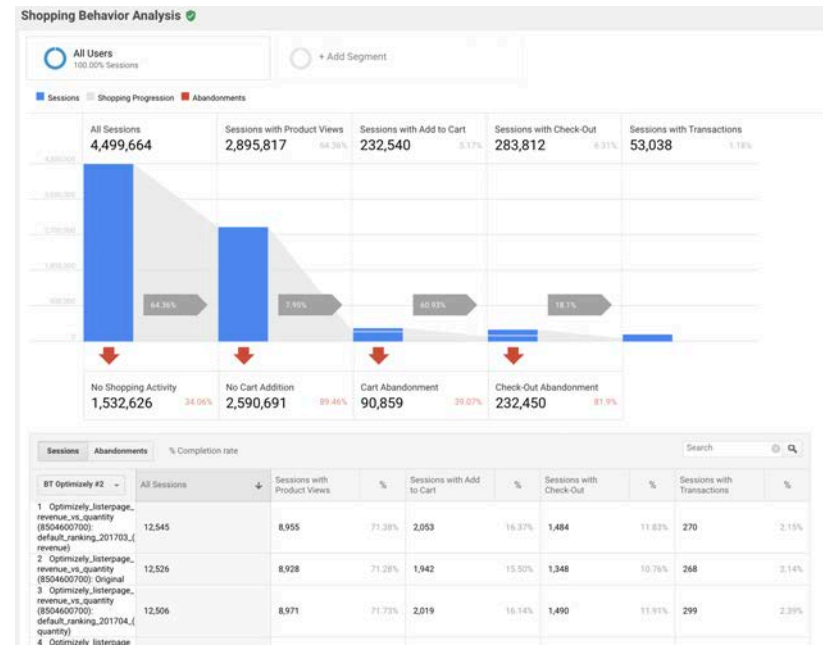
VS.

T-SHIRTS FILTERN

- Verfügbarkeit Sofort lieferbar +
- storeavailability +
- Rabatt (%) +
- Für... Männer +
- Größe +
- Farbe +
- Marke +
- v_min_price +
- Sortieren Beliebteste +

FERTIG

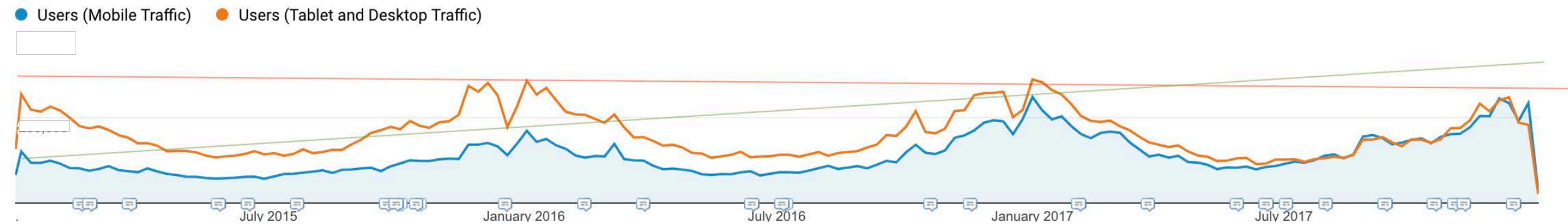
ALLES AUFHEBEN



Mobile Shift

Through our lens

Last couple of years



- Higher bounce rate (-20%)
- Lower conversion (-33%)
- Session duration (-35%)
- Fewer pages/session (-25%)
- Sessions per user (+10%)
- Mobile is the biggest challenge for ecommerce
- Also the biggest opportunity
 - Source for new customers
 - Source for deeper engagement

2011 Mobile Version & App

11:22 AM

http://www.blue-tomato...

blue-tomato.com **Warenkorb**

Suche Suche

Männer Frauen
Kinder Uni
Special Promotions

Marken [Alle Marken »](#)

[Wunschzettel](#) · [Mein Konto](#) · [Service & Hilfe](#) Deutsch

**WINTER
DRYVIEW**

**NEW
SNOWBOARDS &
FREESKI**

FREESKI **SNOWBOARD**

12:03 PM

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[Wunschzettel](#) · [Mein Konto](#) · [Service & Hilfe](#) Deutsch

[← ZURÜCK ZUR ÜBERSICHT](#) Shop: Accessoires

NEW! OAKLEY
Sadplant Pipe Glove

Wähle deine Farbe: black/
orange

Wähle deine Größe!

S M **L** XL



🕒 Versandfertig: 24
Stunden

29,95 €

IN DEN WARENKORB

auf den Wunschzettel

Gratis Versand für Deutschland, Österreich und Schweiz ab 100€

DIE DETAILS:
Kein Grund traurig zu sein, ganz im Gegenteil, wenn man so
geniale Handschuhe wie die Sadplant Pipe Gloves besitzt
kann man wirklich nur mit einem Lächeln im Gesicht durch
die Welt gehen.

12:04 PM

Special Promotions

Marken [Alle Marken »](#)

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Accessoires Bandanas

Du hast diesen Artikel in deinen Warenkorb gelegt

 **Oakley
Sadplant Pipe Glove**

Farbe: black/orange
Größe: L
29,95 €

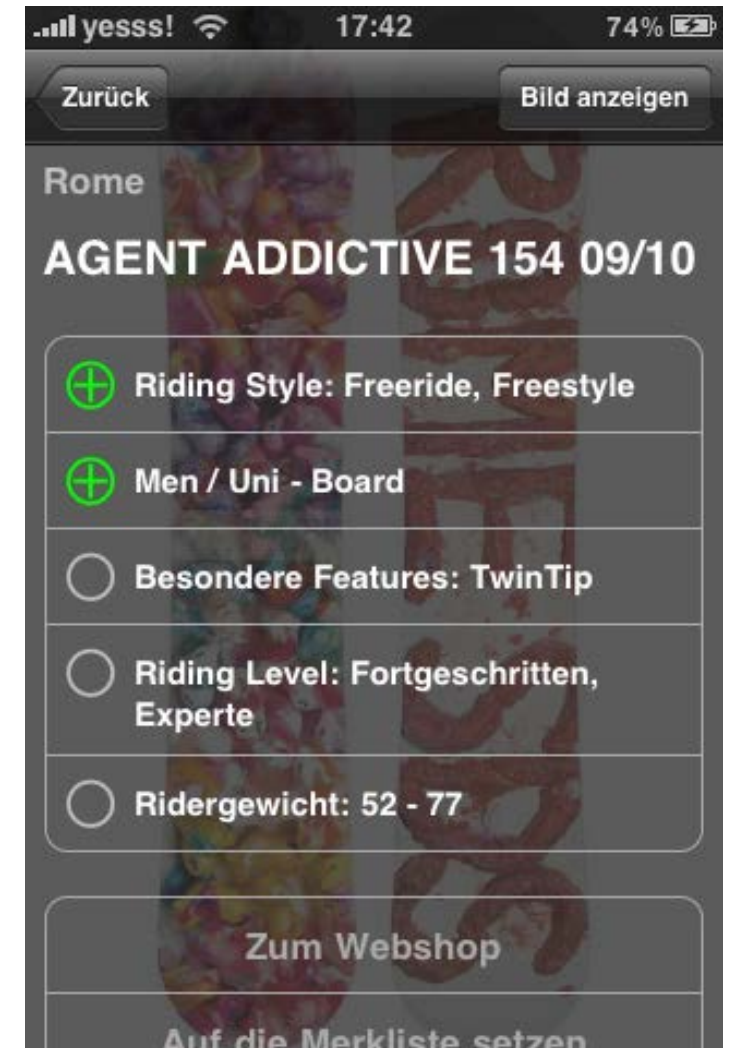
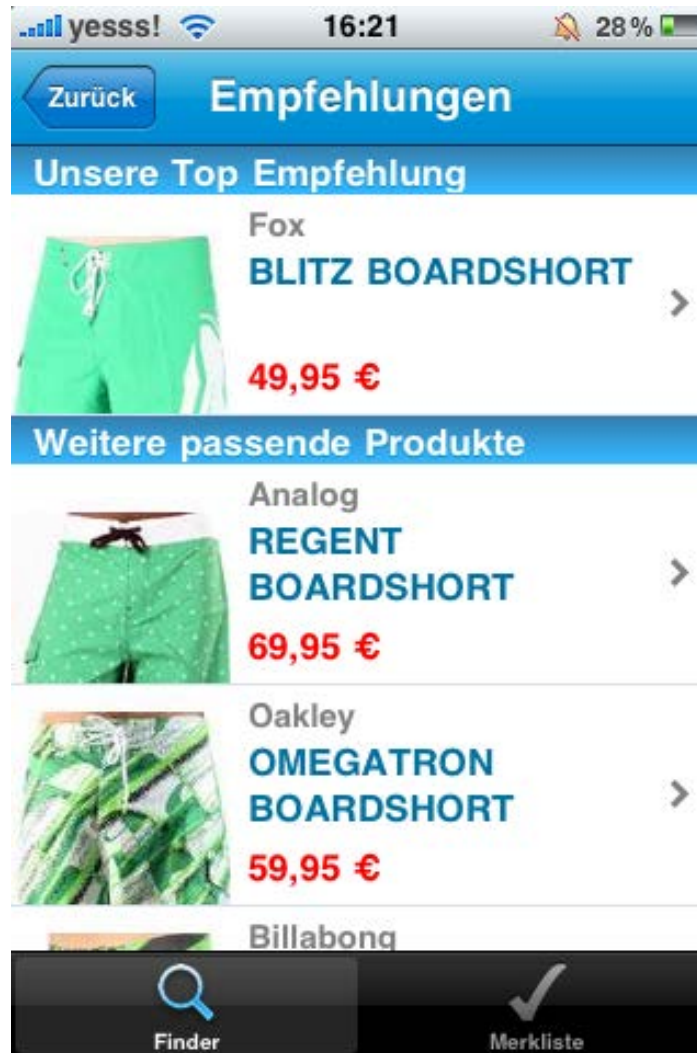
→ zum Warenkorb

→ zur Kasse

← WEITER SHOPPEN

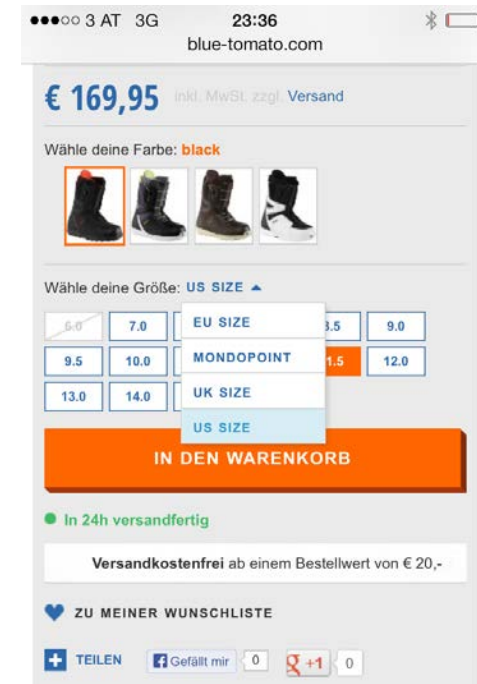
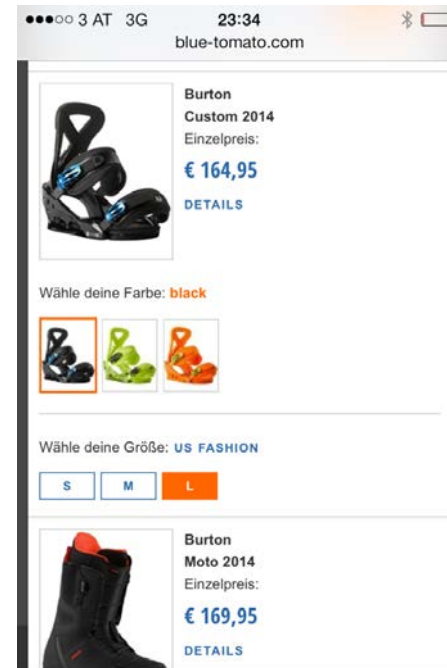
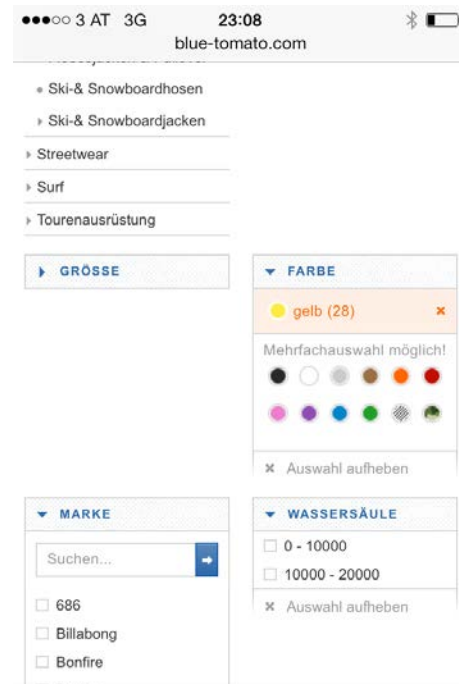
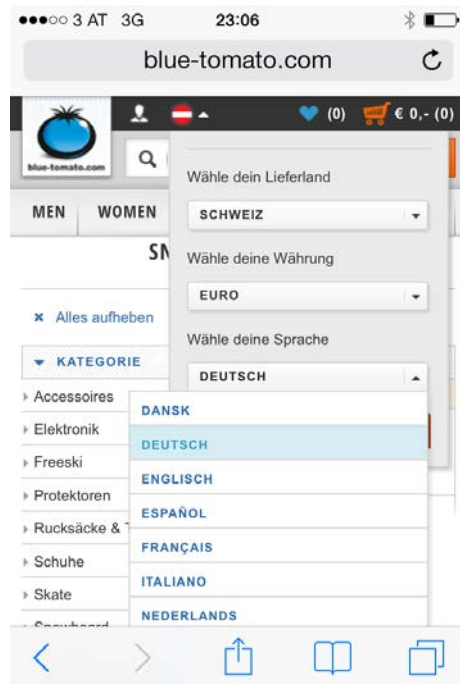
aufgepasst!
GRATIS Versand für DE, AT und CH ab 100€ Bestellwert

2011 Mobile Version & App



2013 Full Responsive Webshop

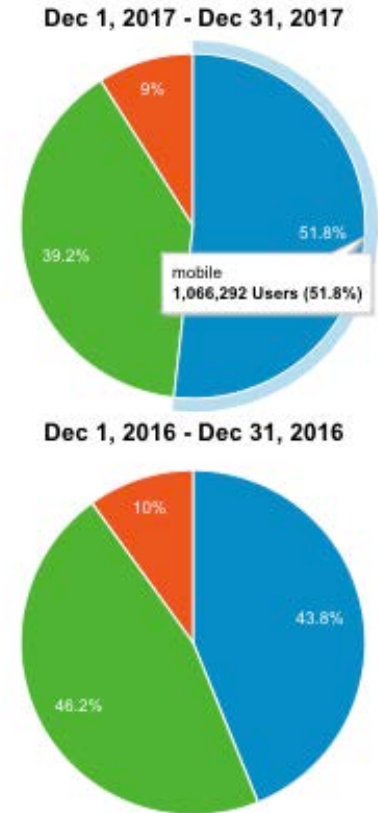
- Not always good to be the first mover
 - Development was desktop focused and mobile was just different breakpoints
 - heavy payload, mediocre usability and difficult checkout
 - Insufficient knowledge in how to make good responsive sites



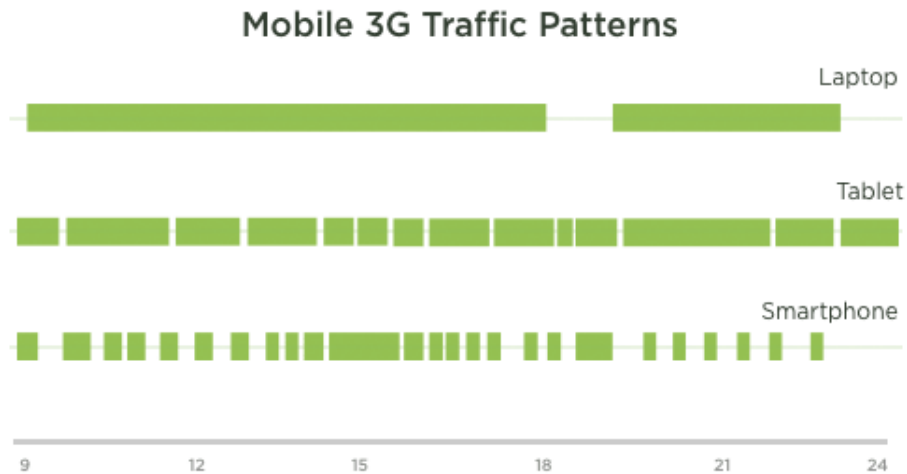
2014 Separate Mobile opt. Site

- Two goals:
 - Performance
 - Best mobile Usability
- Loadtime cut to 1/3 of original time
- Revenue from mobile went up 280%
- Year over year (>20% revenue growth)

[Link to Design](#)



Current Landscape



1) Luke Wroblewski @lukew

- Shorter sessions
(time, interruptions, permanent companion)
- Relevant content
(personalisation, history)
- Easy usage
(app like behaviour)
- Easy checkout
(data entry, security, convenience)

Performance

- More than half of mobile sessions < 30sec
- 1 second faster + 27% conversion uplift
- Significant share of in-app traffic

- Best Practice Web Development (no junk)
 - Caching, Compression, CDN
 - Preloading
 - Clean code
- Leverage perceived performance
 - Skeletons, templates, animations
 - Animation

Performance

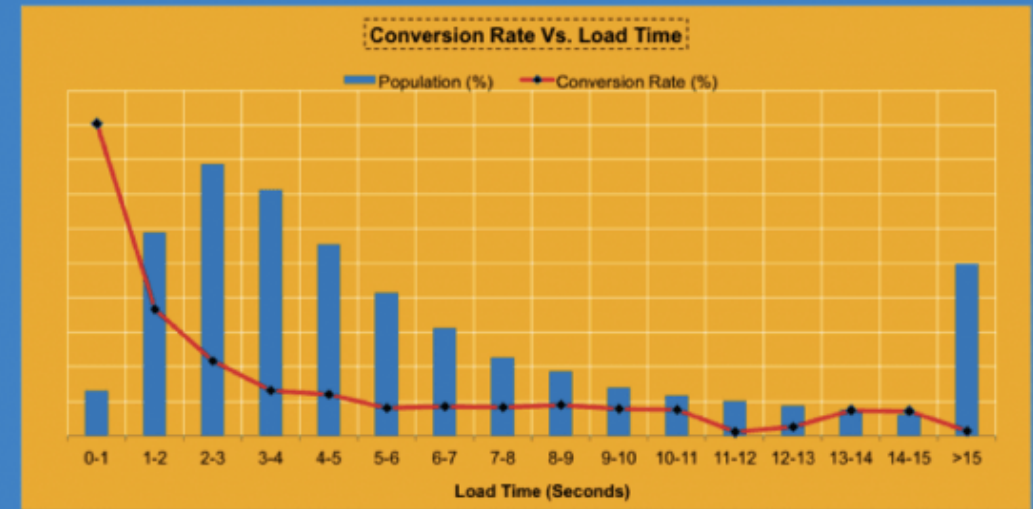
- A two-second delay in web page load time increase bounce rates by 103 percent
- 53 percent of mobile site visitors will leave a page that takes longer than three seconds to load

Impact of site performance on overall site conversion rate....

Baseline – 1 in 2 site visits had response time > 4 seconds

* Sharp decline in conversion rate as average site load time increases from 1 to 4 seconds

* Overall average site load time is lower for the converted population (3.22 Seconds) than the non-converted population (6.03 Seconds)



Note: Load Time here is the time taken from head of the page to page ready (T_Page)

Page Performance & Site Conversion – Feb 2012





Alles rund um Boards, Rollen, Wellen & Schnee

In der Boardsport Szene ist immer ordentlich was los. Von spannenden Events, coolem neuem Stuff der Brands und News über Rider. Da ist es gar nicht so einfach immer auf dem neusten Stand zu bleiben. Wir von Blue Tomato übernehmen das nur zu gerne für dich und sorgen dafür, dass du immer up-to-date über Interessantes aus der Szene bist. Ganz egal ob Snowboard, Freeski, Skate oder Surf hier gibt es eine Menge an spannenden Stories für dich zum durchstöbern. Also rück die Lesebrille zurecht und tauch ab in die Blue World.



SOLO X Vans presents: SEQUEL

Vans und SOLO präsentiert "SEQUEL". Ein Video von Max Dak & Hendrik Laesmann mit dem deutschen Vans Team.
[com/de/blue-world/snowboard/blue-parks-winter-weekend/](https://medium.com/de/blue-world/snowboard/blue-parks-winter-weekend/)



Elooa Girls Balance Camp Recap

Ein Wochenende voller Snowboarden, Yoga, gesunden Essen, Videocoaching und jeder Menge Spaß – das war das [Elooa Girls Balance Camp](#).

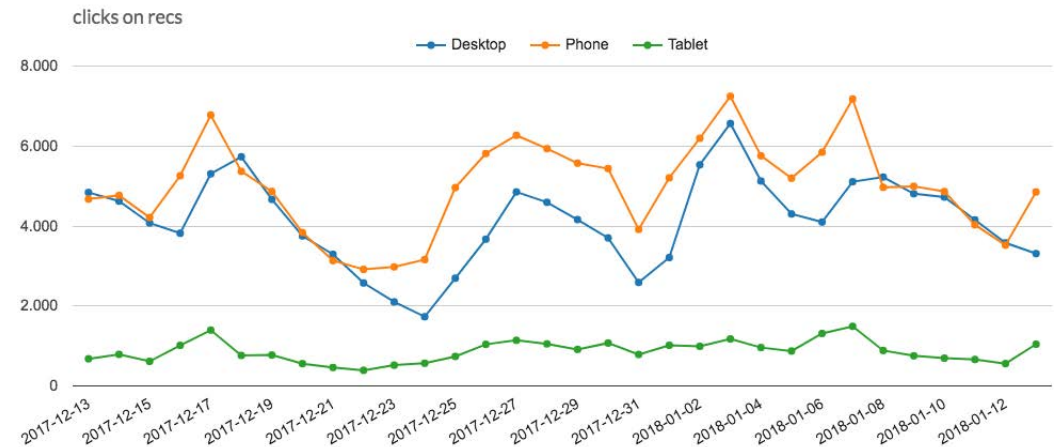


Blue Parks Winter Weekend

Ein Camp von und für Rider, die für die Tage am Berg leben. von Maren 12.12.17

Relevant Content

- Less likely to filter or browse for content
- More searches on mobile than desktop and tablet
- Small screen
- Unpatient, used to push (feed) content like Facebook



Relevant Content

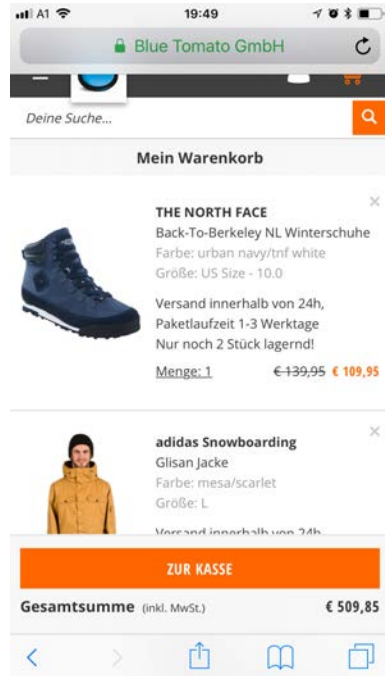
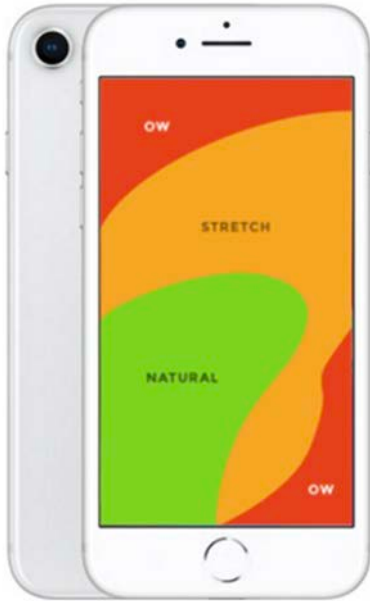
- Recommendation engines
 - Products, sizes, content, journey (*payments, delivery, even discounts*)
- Fine tuned search engines
 - Query optimization
 - Domain Knowledge (1)
- Reduce chrome
- Optimize navigation hierachy
- Personalization
 - People like to interact (like, follow brands, get updates and notifications)

1) <https://corporate.zalando.com/en/newsroom/en/stories/talking-mobile-big-data-small-screens-and-personalization>

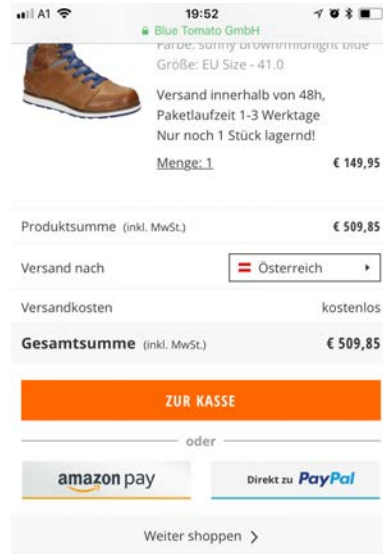
2) <https://www.confluent.io/blog/ranking-websites-real-time-apache-kafkas-streams-api/>

Application Layout

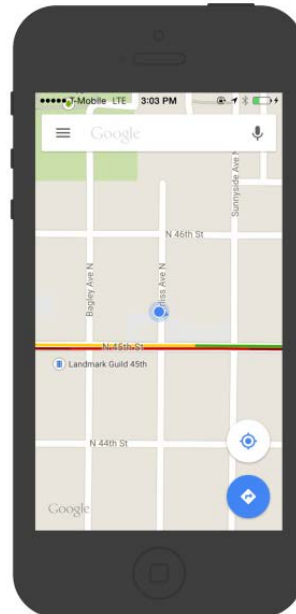
- Hard to reach interaction
 - Mostly a copy from desktop design
 - Real estate is not used efficiently
- Fixed elements
 - Bottom navigation bar
 - Call to Action
 - Natural gestures
 - Scroll, drag
 - Less chrome



ADIDAS SNOWBOARDING € 249,95



KUNDEN, DIE BACK-TO-BERKELEY NL WINTERSCHUHE
GEKAUFT HABEN, KAUFEN SICH AUCH:



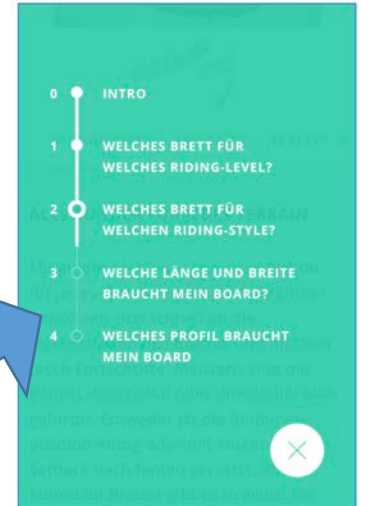
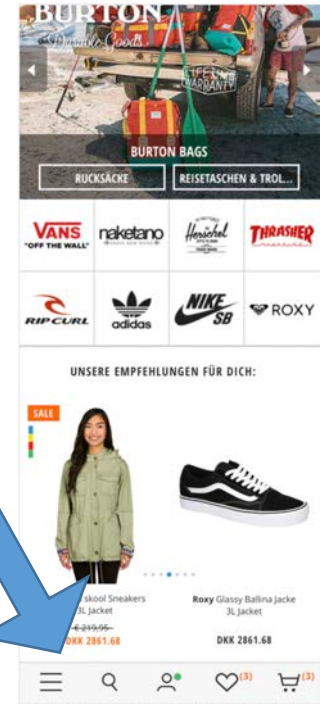
Welches Brett
für welches Riding-
Level?



WÄHLE DEIN LEVEL!

BEGINNER ADVANCED EXPERT

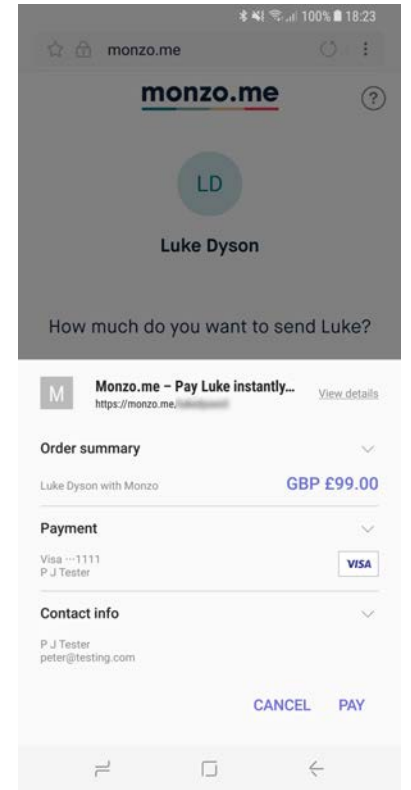
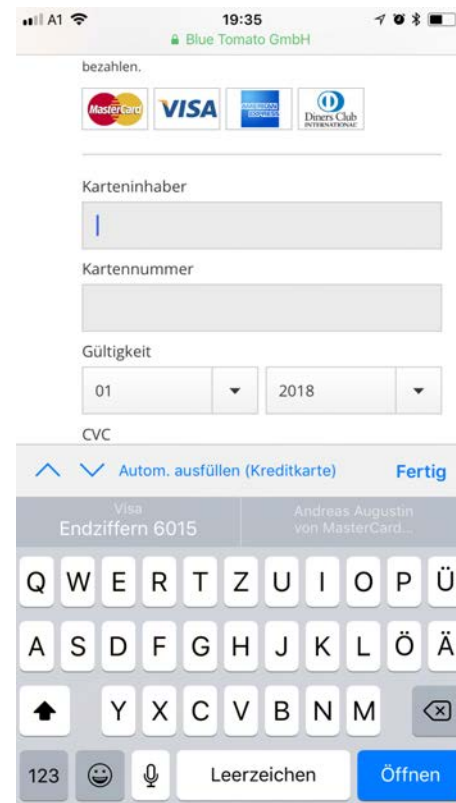
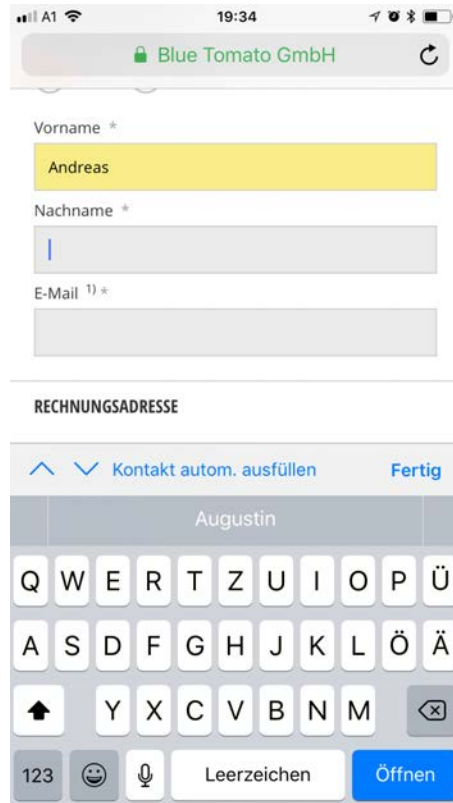
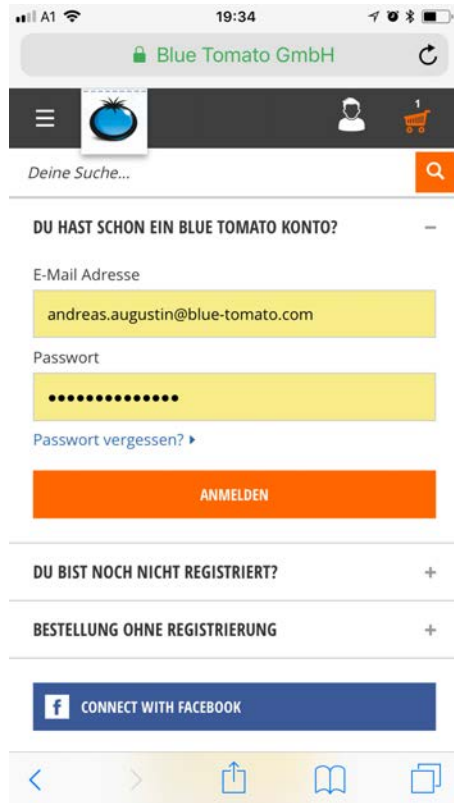
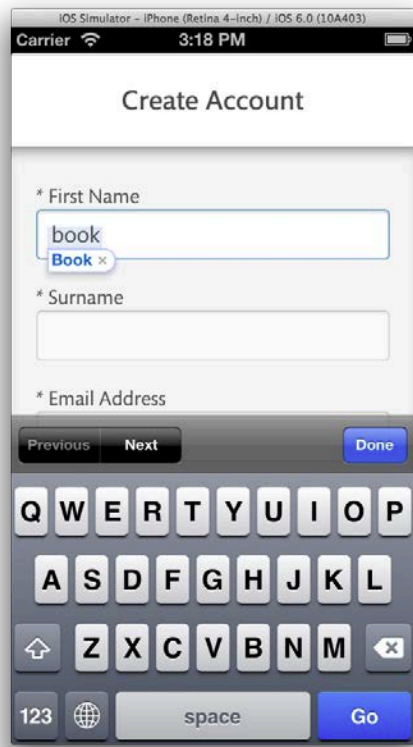
DIE ERSTEN TURNS



Form fields

- Input is hard on mobile
- Too many form fields
- Instructions unclear

- Use correct form type and naming
 - login
 - Personal data
 - Credit card data
- Deactivate auto-correct in search
- Reduce fields
- Guidance
- Use intelligent methods (APIs)



<https://developers.google.com/maps/documentation/javascript/examples/places-autocomplete-addressform>

<https://www.pcapredict.com/address-validation/try-it-now/>

<https://www.pcapredict.com/mobile-number-validation/try-it-now/>

<https://www.smashingmagazine.com/2018/01/online-purchase-payment-request-api/>

End of the show

Be obvious! → obvious always wins (LukeW)

Questions?



Thank You

Andreas Augustin

@auguan

your ride. our mission