

# How to smash Google Analytics for eCommerce



# I'm an eCommerce Consultant

I've worked with..

**ChemistDirect**  
Your favourite brands, direct to you



**RENAULT**

**MAYFLEX**  
A Sonepar Company

[Lukecarthy.com](http://Lukecarthy.com)

[@MrLukeCarthy](https://www.instagram.com/MrLukeCarthy)

**I want to share a  
story with you..**

**The 'I can't replicate  
the issue so I'm  
closing the ticket'  
story**





# Meet Dave & Lucille.



**Dave**

[Lukecarthy.com](https://lukecarthy.com)



**Lucille**

[@MrLukeCarthy](https://twitter.com/MrLukeCarthy)

# Who's Dave?



- ✔ Digital Manager at an eCom store
- ✔ Uses GA almost daily
- ✔ Enhanced eCommerce whizz
- ⚠ 'Out of the box' GA account



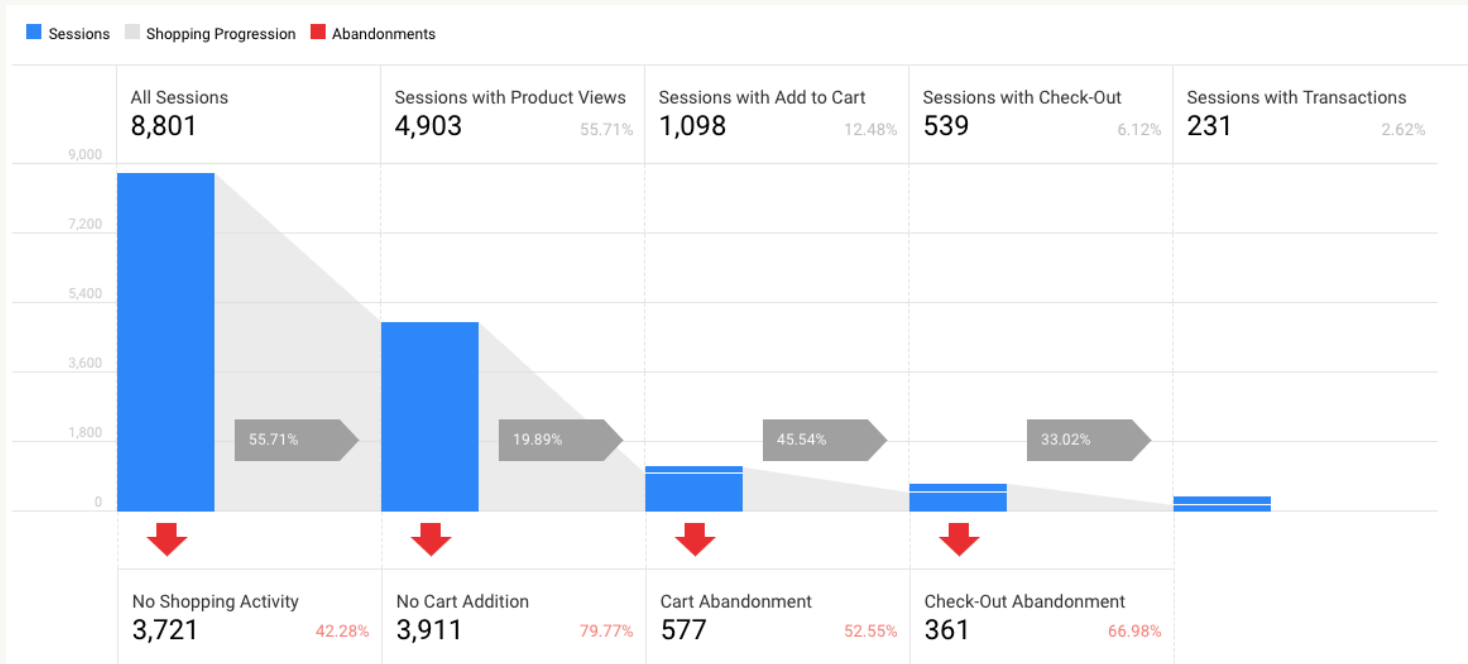
# Dave has a problem..

Google Analytics is cool at telling  
Dave about the sales they've won...



# Dave has a problem..

...but it's not great at telling him  
about the sales they've missed  
and why.



Sessions Abandonments % Completion rate Search

Medium	All Sessions	Sessions with Product Views	%	Sessions with Add to Cart	%	Sessions with Check-Out	%	Sessions with Transactions
1 cpc	3,646	2,280	62.53%	459	12.59%	243	6.66%	99
2 (none)	1,977	753	38.09%	212	10.72%	110	5.56%	50
3 organic	1,321	748	56.62%	198	14.99%	91	6.89%	40
4 referral	1,041	549	52.74%	101	9.70%	45	4.32%	19
5 email	751	511	68.04%	125	16.64%	48	6.39%	23
6 social	61	61	100.00%	3	4.92%	2	3.28%	0
7 (not set)	6	2	33.33%	0	0.00%	0	0.00%	0









# Dave has a problem..

Dave's GA only delivers indicators  
and insights, not solid proof.





# Dave has a problem..

‘I think...’

doesn't get prioritised.

# Who's Lucille?



- ✓ Digital Manager at an eCom store
- ✓ Uses GA frequently
- ✓ Enhanced eCommerce whizz
- 🔧 Gone beyond 'out of the box' config



**Lucille's killin' it.**

Lucille can quickly get to that  
sweet, sweet solid proof...



**Lucille's killin' it.**

...and attach even more high res  
data to strengthen her findings...



**Lucille's killin' it.**

...which means Lucille has killer stats the board simply can't ignore.



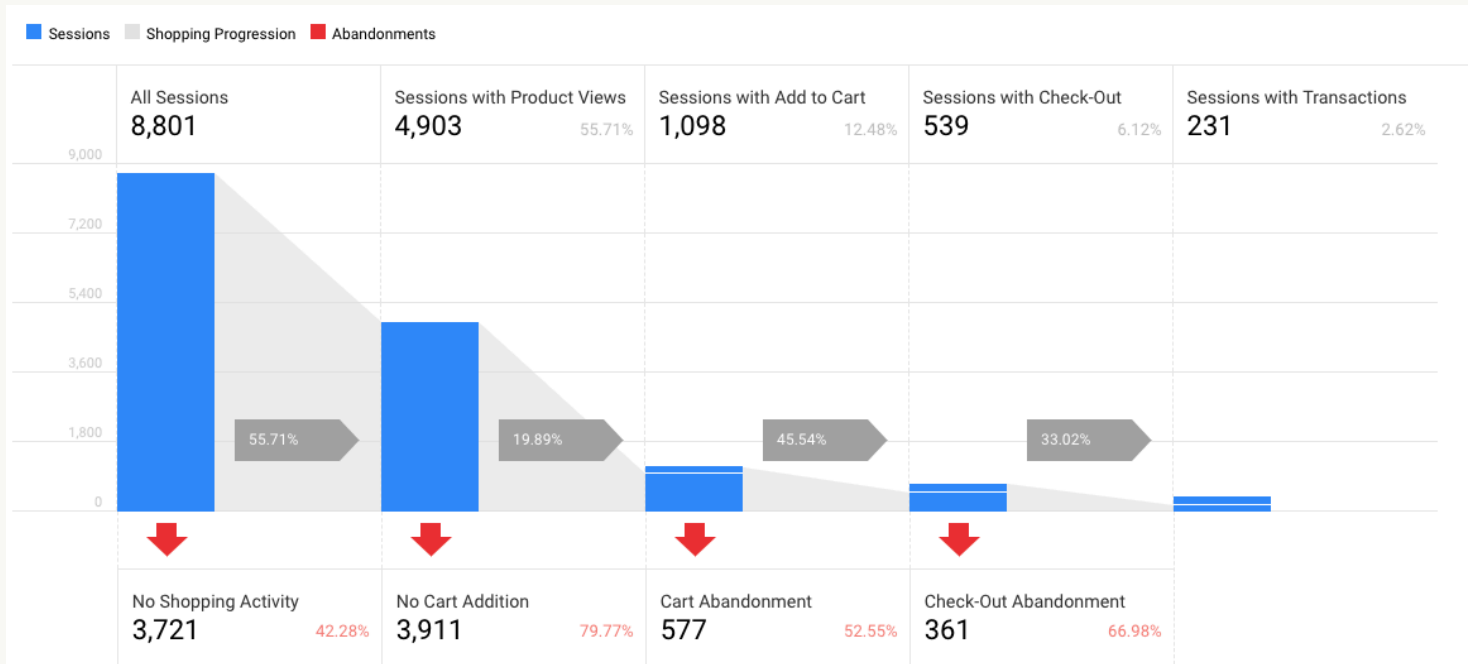
# Lucille's killin' it.

Lucille is able to get tickets  
prioritised higher and closed faster...



## Lucille's killin' it.

...She's saving the devs major time and effort by pinpointing the exact issues.



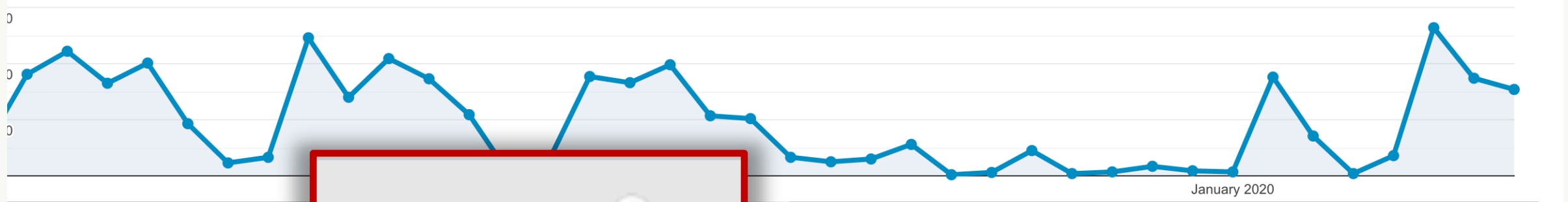
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7 (not set)	6	2	33.33%	0	0.00%	0	0.00%	0














**Error Message 1** ?

Primary Dimension: **Error Message 1**

Secondary dimension: Secondary dimension

Sort Type:

advanced     

Error Message 1 ?	Hits ?	Users ?
	<b>3,754</b> % of Total: 0.63% (597,148)	<b>719</b> % of Total: 2.88% (25,000)
1. × Error message Sorry, unrecognized username or password. Have you forgotten your password?	<b>2,016</b> (53.70%)	<b>388</b> (41.28%)
2. × Error message Access denied. You may need to login below or register to access this page.	<b>371</b> (9.88%)	<b>98</b> (10.43%)
3. × Error message The form has become outdated. Copy any unsaved work in the form below and then reload this page.	<b>168</b> (4.48%)	<b>53</b> (5.64%)
4. × Error message Sorry, there have been more than 5 failed login attempts for this account. It is temporarily blocked. Try again later or request a new password.	<b>90</b> (2.40%)	<b>9</b> (0.96%)

Payment failed.  
Error 1007: Please  
contact sales on...

sage Pay		
Q Search		
Introduction		
Versioning		
Getting started		
Authentication		
Response Codes		
HTTP Response Codes		
<b>Sage Pay Error Codes</b>		
Resources		
422	1004	Invalid length
422	1005	Contains invalid characters
404	1006	Merchant session key not found
422	1007	The card number has failed our validity checks and is invalid
422	1008	The card is not supported
422	1009	Contains invalid value
422	1010	Currency does not exist
422	1011	Merchant session key or card identifier invalid
404	1012	Transaction not found

Payment failed.  
Error 1007: Please  
contact sales on...

**Invalid card number,  
please check and  
retry**

**The results? Up to  
£30k p/day sales  
increase virtually  
overnight**



# How to build a bad ass GA rig like Lucille

**Custom definitions.**  
**Why are they**  
**awesome?**



**They allow you to  
send custom data in  
to GA**

**Custom dimensions  
can be applied to  
almost any dataset**

- Customization
- REPORTS
- Realtime
- Audience
- Acquisition
- Behavior
  - Overview
  - Behavior Flow
  - Site Content
    - All Pages
    - Content Drilldown
    - Landing Pages
    - Exit Pages
  - Site Speed
  - Site Search
  - Events
- Attribution BETA
- Discover

All Users  
100.00% Pageviews

+ Add Segment

Jan 5, 2020 - Jan 11, 2020

Explorer **Navigation Summary**

Pageviews vs. [Select a metric](#)

● Pageviews

Primary Dimension: **Page** Page Title Other

Plot Rows Secondary dimension Sort Type: Default

Page	Pageviews	% of Total	% Exit	Avg for View	Page Value
1. /	37,800	100.00%	18.03%	25.12%	£6.09
2. /shop/basket/view	3,799	10.03%	17.65%	18.93%	£5.75
3. /user/login	704	1.86%	0.00%	6.96%	£56.20
4. /no	653	1.71%	5.56%	4.75%	£4.16
5. /	652	1.70%			

Secondary dimension dropdown menu:

- Advertising
- Behavior
- Custom Dimensions
  - Account Code
  - Application ID
  - Basket Ref
  - Company Reg
  - Delivery Code
  - Delivery Option

Display as alphabetical list

▼  Customization

Dashboards

Custom Reports

Saved Reports

Custom Alerts

REPORTS

▶  Realtime

## Report Content

Report Tab ×

[+ add report tab](#)

Name

Type **Explorer** Flat Table Map Overlay

Metric Groups

⋮ Hits ×

⋮ Users

[+ add metric](#)

[+ Add metric group](#)

Dimension Drilldowns

⋮ Page ×

Account Code ?

Application ID ?

Basket Ref ?

Company Reg ?

Delivery Code ?

Delivery Option ?

Error Message 1 ?

Integrator Status ?

Logged In ?

Display as alphabetical list

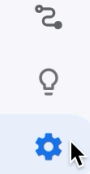
**Filters** - optional

**Views** - optional

- Account Settings
- Account User Management
- All Filters
- Change History
- Trash Can

- Property Settings
- Property User Management
- Tracking Info
- Data Deletion Requests
- PRODUCT LINKING**
- Google Ads Linking
- AdSense Linking
- Ad Exchange Linking
- All Products
- Postbacks
- Audience Definitions
- Custom Definitions
- Data Import

- View Settings
- View User Management
- Goals
- Content Grouping
- Filters
- Channel Settings
- Ecommerce Settings
- Calculated Metrics **BETA**
- PERSONAL TOOLS & ASSETS**
- Segments
- Annotations
- Multi-Channel Funnels Settings
- Custom Channel Grouping **BETA**
- Custom Alerts



Admin

**After that, there's a  
bit of Google Tag  
Manager tinkering**

**I've included some  
helpful resources** (links  
at the end)



# Capturing error messages in GA

# Error messages

Identify how many times every error fires,  
the specific text and where

**Answer  
questions  
like these...**

What errors are firing at the  
checkout and how many visitors  
see them?

**Answer  
questions  
like these...**

Are there errors that could be  
rewritten to improve UX/CRO?

**Answer  
questions  
like these...**

What pages display the most  
errors?

**Answer  
questions  
like these...**

What errors are hurting  
conversions the most?



## Cart Abandonment [Funnel Segment]

2.05% Users

Primary Dimension: **Error Message 1**

Plot Rows

Secondary dimension

Sort Type:

Default

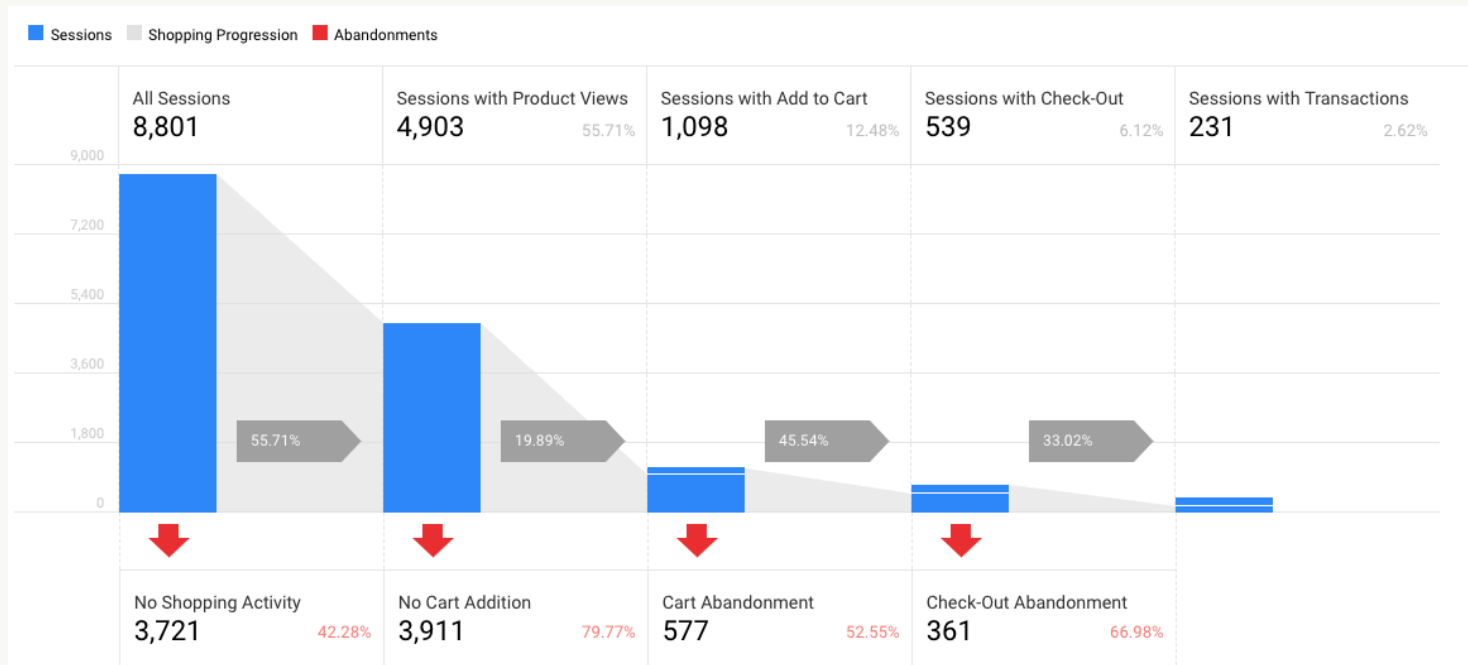
Search bar with magnifying glass icon, text "advanced", and icons for grid, pie chart, list, refresh, and print.

<input type="checkbox"/>	Error Message 1 <sup>?</sup>	Hits <sup>?</sup>	Users <sup>?</sup>
	<b>Cart Abandonment [Funnel Segment]</b>	<b>261</b> % of Total: 0.04% (597,148)	<b>57</b> % of Total: 0.23% (25,000)
<input type="checkbox"/>	1. × Error message Sorry, unrecognized username or password. Have you forgotten your password?	<b>157</b> (60.15%)	<b>36</b> (51.43%)
<input type="checkbox"/>	2. × Error message Sorry, the postcode you entered was not in the correct format. Please re-enter and try again	<b>24</b> (9.20%)	<b>7</b> (10.00%)
<input type="checkbox"/>	3. × Error message Sorry, the VAT number you supplied failed our validation	<b>12</b> (4.60%)	<b>3</b> (4.29%)
<input type="checkbox"/>	4. × Error message Access denied. You may need to login below or register to access this page.	<b>6</b> (2.30%)	<b>1</b> (1.43%)

# Capturing lost basket value in GA



**GA isn't great at  
reporting the sales  
you've lost**



		Sessions		Abandonments		% Completion rate		Search	
Medium	All Sessions	Sessions with Product Views	%	Sessions with Add to Cart	%	Sessions with Check-Out	%	Sessions with Transactions	
1 cpc	3,646	2,280	62.53%	459	12.59%	243	6.66%	99	
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5 email	751	511	68.04%	125	16.64%	48	6.39%	23	
6 social	61	61	100.00%	3	4.92%	2	3.28%	0	
7 (not set)	6	2	33.33%	0	0.00%	0	0.00%	0	

# Lost basket value

Where do we lose the most potential sales?

# Lost basket value

What does slow website performance  
cost us?

# Lost basket value

How much cash are we losing due to that  
error message?

# Lost basket value

Error Message 1 ?	Hits ? ↓	Users ?	Basket Value ?
<b>Cart Abandonment [Funnel Segment]</b>	261 % of Total: 0.04% (597,148)	57 % of Total: 0.23% (25,000)	£187,654.72 % of Total: 0.00% (£0.00)
1. × Error message Sorry, unrecognized username or password. Have you forgotten your password?	157 (60.15%)	36 (51.43%)	£26,873.33 (0.00%)

**How does the lost  
basket value  
dimension work?**

# Capturing product stock status in GA



# Product stock status

Is zero stock the reason why sales were  
low for specific lines?

# Product stock status

When an item has low stock, how does it  
impact conversion?

# Capturing promotional statuses in GA

# Product stock status

How does a price reduction or offer impact conversion for these items?

# Product stock status

Does 3 for 2 or 1/3 off work better?

**A few bad bits re  
custom definitions..**

# A few bad bits

They can't be deleted once they've been added.

# A few bad bits

You can only have a max. of 20 of them  
across a property. Bastards.



# A few bad bits

Integrator Status	19
-------------------	----

1 custom dimension left



**Where custom  
definitions get ugly,  
events get sexy**

**Firstly, there's no  
limits on the number  
of events**

**But there are  
nuanced differences...**

# Some differences

Custom definitions tell you what, events  
tell you when...

# Some differences

Dimensions	Metrics	Events
Transaction type	Transaction amount	Purchase completed
Customer type	Number of transactions	Saved quote
Stock status	Item price	Added to basket

**There are no hard and  
fast rules**

# Some differences

Events can also be used to power goals,  
custom dimensions can't.



# Some differences

## Custom definitions:

```
{Def. name} : {value}
```

## Events:

```
{Category} : {value}
```

```
{Action} : {value}
```

```
{Label} : {value}
```

```
{Value} : {number}
```

- Customization
- REPORTS
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All Users  
100.00% Pageviews

+ Add Segment

Jan 5, 2020 - Jan 11, 2020

Explorer **Navigation Summary**

Pageviews vs. [Select a metric](#)

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Plot Rows Secondary dimension Sort Type: Default

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Secondary dimension dropdown menu:

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  - Account Code
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  - Delivery Option

Display as alphabetical list

▼ Behavior

Overview

Behavior Flow

▶ Site Content

▶ Site Speed

▶ Site Search

▼ Events

Overview

Top Events

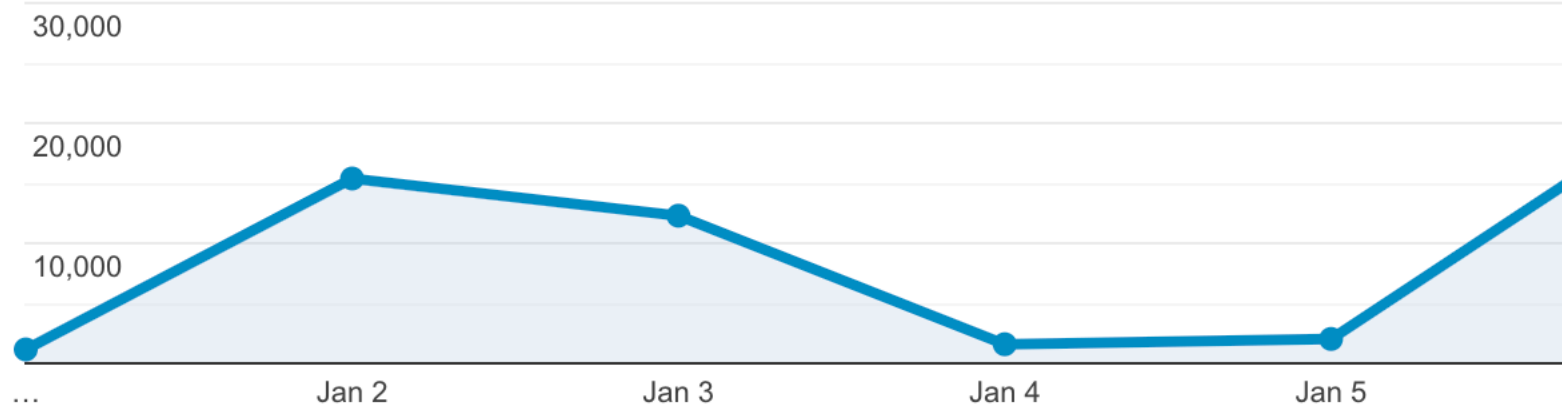
Pages

Events Flow

Attribution **BETA**

Discover

● Total Events



Primary Dimension: **Event Category** [Event Action](#) [Event Label](#)

Plot Rows

Secondary dimension ▼

Sort Type: Default ▼

<input type="checkbox"/>	Event Category ?	Total Events ?
		141,000 % of Total: 100.00% (141,000)
<input type="checkbox"/>	1. <a href="#">loggedInStatus</a>	47,819 (33.91%)
<input type="checkbox"/>	2. <a href="#">integrator</a>	34,445 (24.43%)

**Fire an event when a  
search returns 'no  
results'**



Oops - we can't find any results for "supercalifragilisticexpialidocious"

Use our tips and try again:

Enter search term

Search

- Check it's spelt right and try again
- Just use a couple of key words
- Don't use any punctuation

# Fire an event like this:

**Event params:**

**Category:** Site Search

**Action:** no results

**Label:** {Search term}

**Value:** 1

**So you can  
confidently answer  
questions like these...**

**Answer  
questions  
like these...**

**What are the items that  
customers are looking for that  
we don't sell?**





# 'No results' event

Dalhua | Alhua | Dahau | Olhua | Dower | Dahooa

# Dahua

**Da-who-ah**



**Answer  
questions  
like these...**

What misspellings are we not  
optimising and how often are  
they searched?

**Answer  
questions  
like these...**

What non-commerce queries  
are our customers searching  
for?

**You can take this  
further than just  
search too...**



# Flag all empty categories too



You're shopping  
Ellsworth

Store Finder Truck & Tool Rental For the Pro Gift Cards Credit Services Favorites Track Order Help

What can we help you find today?



My Account

Cart | 0 items

All Departments Home Decor & Furniture DIY Projects & Ideas Home Services Specials & Offers Local Ad

Home Decor

Furniture

Kitchen & Dining

Bedding & Bath

Lighting

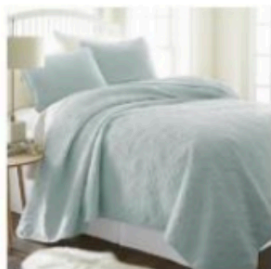
Window Treatments

Shop By Room

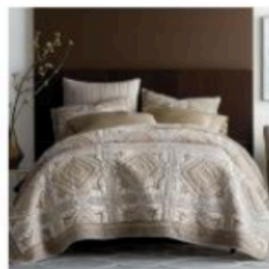
Savings

Home / Home Decor / Bedding & Bath / Quilts & Bedspreads

## Grey Floral The Company Store Quilts & Bedspreads (0 Results)



King



Full/Queen



Queen



Coverlet



Quilt Set



Coverlet Set

Your Selection:

Color Family: Grey

Brand: The Company Store

Pattern Type: Floral

Clear All

Sorry, there are no products available online or in your local store. Please use our Store Finder to select another local store.

**Last but not least...**

**A report that needs  
zero dev and takes  
mins to setup...**

# A 404 counter sorted by customer impact

# 404 Error Log ✓

SAVE EXPORT SHARE EDIT

All Users  
1.28% Hits

+ Add Segment

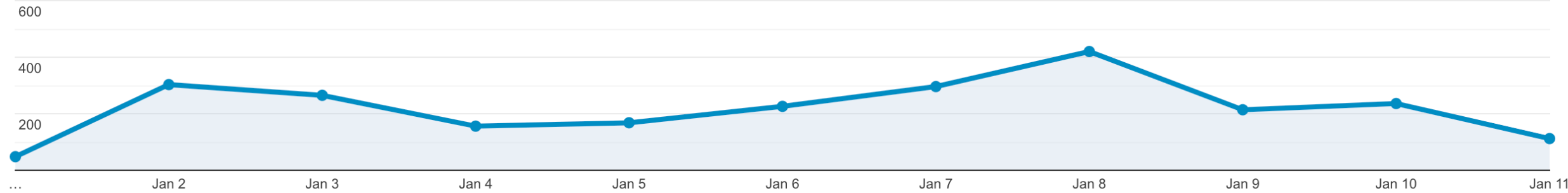
Jan 1, 2020 - Jan 11, 2020

## Report Tab

Hits vs. Select a metric

Day Week Month

Hits



Primary Dimension: Page

Plot Rows Secondary dimension Sort Type: Default

advanced [Grid] [Refresh] [List] [Filter] [Columns]

Page	Hits	Users	New Users	% New Sessions
	2,444 % of Total: 1.28% (190,588)	453 % of Total: 5.19% (8,722)	297 % of Total: 4.65% (6,389)	98.67% Avg for View: 51.56% (91.38%)
1. /sites/default/files/pdf/shpe002/4aa6-3596enw.pdf	392 (16.04%)	98 (18.49%)	98 (33.00%)	100.00%

**Plus some other cool  
stuff and ideas**

# Lukecarthy.com/ LondonSEO



# Links n stuff:

**Step-by-step guide to setting up custom dimensions:**

<https://online-metrics.com/custom-dimensions/>

**GTM basics – rules in a nutshell by Simo Ahava:**

<https://www.simoahava.com/gtm-tips/gtmtips-rules-nutshell/>

**The official GA docs for custom dimensions:**

<https://support.google.com/tagmanager/answer/6164990?hl=en>

Be more Lucille.<sup>TM</sup>



# Thank you!



@MrLukeCarthy



/in/lukecarthy



lukecarthy.com