Analytics case study

Carer's Allowance service (DWP)

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Introduction

This case study explores how the service team set up and used analytics on the <u>Carer's</u> <u>Allowance</u> beta exemplar service. It includes best practice examples of implementation and ways of working to help other services with their analytics data. The period it covers is November 2013 to November 2014.

The Carer's Allowance exemplar

Carer's Allowance is a benefit for people looking after someone with substantial caring needs. The new exemplar service replaced the previous online claim process which had low take-up and did not meet the standards set out in the Department of Work and Pensions (DWP) <u>digital</u> <u>strategy</u>.

Users access the new service from a start page on <u>GOV.UK</u>, from where they go through an eligibility section. Eligible users then answer questions through a series of different sections to reach the end of the service.



[The Carer's Allowance start page on GOV.UK]

Meeting the digital by default service standard

All new or redesigned transactional government services going live after April 2014 have to meet the <u>digital by default service standard</u>. This is a set of criteria that digital teams building government services have to meet. The criteria include using analytics tools to collect performance data and as a minimum to report on a <u>defined set of key performance indicators (KPIs)</u>.

The GDS performance platform

GDS is putting all the government's performance data in one place, so it's easy to see headline facts about services quickly. Each service gets a dashboard that displays data on areas such as its running costs, live number of users, digital take-up and user satisfaction. The Carer's Allowance service also has a <u>dashboard</u> showing high-level data on its performance.



[Part of the Carer's Allowance dashboard on the performance platform]

As well as this dashboard, the service team wanted further insights into user behaviour. A significant amount of time was spent by the team to capture more detailed data than was provided by the performance platform dashboard.

Analytics solution

<u>Google Analytics Premium</u> (the 'Classic' version) was used on the service. However, the same principles and techniques can be applied to any other commonly available analytics platform a department chooses to use.

1. Starting out

Based in Preston, the Carer's Allowance service team works in agile fortnightly sprints and is made up of a multi-disciplinary group of people. These include developers, user researchers and a performance analyst.

Determining analytics needs

It is extremely important to consider what data points are required right at the start of the planning process and to incorporate them into the sprint planning. By doing this, the service

team were able to continually focus on user behaviour during new iterations of the service and had all the correct tagging in place.



[The sprint discussion board]

Ability to map every stage of a user journey

The Carer's Allowance service is made up of different sections, each containing a number of pages. Google Analytics, like many other analytics providers, uses page URLs to track traffic to web pages. By creating individual and intuitive URLs across the service, the team could see where users dropped out of the online application. The number of views each service page received was shown in the analytics reports.

Page	Pageviews ?
	315,809 % of Total: 45.20% (698,747)
1. /allowance/benefits	48,704 (15.42%
2. /allowance/hours	ري 32,211 (10.20%
3. /allowance/over-16	J 31,607 (10.01%
4. /allowance/lives-in-gb	January 31,551 (9.99%
5. /allowance/approve	J 30,865 (9.77%
6. /about-you/your-details	e 27,956 (8.85%
7. /about-you/contact-details	LA 24,276 (7.69%
8. /about-you/more-about-you	ری 22,581 (7.15%

[Example of how service pages appear in analytics reports]

2. Configuring the analytics

There's a common misconception that just adding some basic analytics tags to pages on a website will automatically give detailed data on user behaviour. A basic implementation will provide some useful data but dedicating some time and thought to extra tagging can enable more powerful insights. On the Carer's Allowance service the team committed resources in sprint planning to instrument additional tagging and reporting.

Creating filters

To ensure the analytics data was as accurate as possible, the service team created several filters in Google Analytics to remove as much 'noise' as possible from the results, eg:

- excluding visits made by the team (by filtering out our IP addresses)
- excluding visits from back-end systems such as Preview
- including only visits made on the domain's hostname

Carers Allow	ance hostname only	
ilter Type		
Predefined	Custom	
Exclude		
Include		
Filter	Field	
Host	name 👻	
Filtor	Pattern	
Filter		

[Filter settings to only include visits from the service hostname]

Building views

A series of views (or profiles) were configured to measure different aspects of the service. For example, a view was created which only showed visits that got past the eligibility stage of the service. This was important as it showed more accurately the distribution of the time users were taking to complete the service once they had actually started it.

One view without any filters was kept to fall back on in case data was inadvertently lost by incorrectly applying or removing filters. Sandbox views were also set up for testing filters prior to being applied to our main reporting view.

Mapping the user journeys

One of the first things the service team also did was to sketch a series of diagrams to visualise the common user journeys to help determine what was important to measure. Only measures, conversions and KPIs crucial in quickly telling us how the service was working were adopted in addition to the KPIs required for the performance platform. In this way we were able to consistently align our analytics with the objectives of the service.



[Sketch of the main user journey]

Setting up goals

Once the important things to measure were determined the service team set up a series of goals in Google Analytics. A goal is a configuration which allows the measurement of a specific action, such as the percentage of users reaching a particular page (also known as a goal conversion).

For example, one of the goal conversions configured was the percentage of visits that went beyond the eligibility stage. In addition, the service team wanted to see on which specific pages in the eligibility section users were abandoning their journey. To do this, the first page after the eligibility section was set as the goal URL and a funnel was built to show each eligibility page in the linear journey. Here's the goal details:

Ø	Goal d	escription Edit		
	Name: 1 Goal typ	.3 Eligibility section complete e: Destination	d	
3	Goal d	etails		
	Destinat	tion		
	Equals to	/about-you/your-details		Case sensitive
	For examp	Ne, use My Screen for an app and	thankyou.html instead of www.example.com/thankyou.html for a	web page
	Value o	PTIONAL		
	Off	Assign a monetary value to t	he conversion.	
	Funnel	DPTIONAL n		
	Use an a instead	app screen name string or a web p of www.example.com/thankyou.htm	age URL for each step. For example, use <i>My Screen</i> for an app <i>il</i> for a web page.	and /thankyou.html
	Step	Name	Screen/Page	Required?
	0	Does the person you care fo	/allowance/benefits	No
	2	Do you spend 35 hours or m	/allowance/hours	\otimes
	3	Are you aged 16 or over?	/allowance/over-16	8
	4	Do you live in England, Scot	/allowance/lives-in-gb	8
	6	Based on your answers you	/allowance/approve	0

[Goal funnel configuration]

This enabled the creation of funnel reporting in the analytics reports from which the service team could see the conversion rate and where users were leaving:



[Conversion funnel report]

On some goal configurations a monetary value was assigned to make reporting more insightful. For example, it was calculated that a successful online completion generates an £8 saving over a paper claim. By including this in the goal configuration the team were able to directly show potential savings in reports:



[Monetary goal values in our reports]

3. Checking the data

Every time new analytics were configured, the service team put in place measures to confirm that the data was coming through correctly so we had confidence in the reporting.

Real-time reporting

Real-time reports provided a quick check that high-level data was coming through as expected. Sometimes it took a couple of hours for new Views and filters to populate with data but usually before the end of the day the we knew if configurations were correct. If no data was showing after a few hours we would investigate the problem.

ver	view		+ Create a C	ustom Alert Manage Custom Alerts Create Shortcut BET/
			Pageviews	
	Right now		Per minute	Per second
	00		80	
	.30		60	3
			60	
	active users on site			² 2
	NEW ERETURNING		40	·~
	92%	8%	20	
			-26 -21 -16 -11	
			min min min min) -6 min 80 sec 45 sec 500 sec -15
Тор	Source Active	Users J.	Top Active Pages:	්රිතා - විදියේ විරියේ - අරි
Top	Source Active	users ↓ 35	Top Active Pages: Active Page 1. /thankyou/apply-carers	- 6 min 2013年2 11 日本 2013年2 6 Active Users 6 16.67%
1. 2.	Source Active gov.uk skybadger.co.uk	Users ↓ 35 1	Top Active Pages: Active Page 1. /thankyou/apply-carers 2. /allowance/benefits	
1. 2.	Source Active gov.uk skybadger.co.uk	Users↓ 35 1	Top Active Pages: Active Page 1. /thankyou/apply-carers 2. /allowance/benofits 3. /about-you/your-details	6 min 0 min <th< td=""></th<>
1. 2. Top	Source Active gov.uk skybadger.co.uk	Users↓ 35 1	Top Active Pages: Active Page 1. /thankyou/apply-carers 2. /allowance/benefits 3. /about-you/your-details 4. /allowance/hours	Image: Second

[Real-time report on the Carer's Allowance service]

Validating the analytics

Granular analytics collection was validated by implementing a technique normally used for tracking campaign links. It allowed the team to navigate through the service, note down the specific journeys and then check after a while that the corresponding analytics were accurate.

This was done by associating unique query parameters to the landing page URL for each test visit. Browsing through the service is unaffected but the parameters permits Google Analytics to segment data by particular visits.

This tool was used to set up parameters: <u>http://gaconfig.com/google-analytics-url-builder/</u>. It's normally used for marketing purposes but can be adopted for this purpose. Only the source, medium and name fields were necessary. We used source to show the test visit number, medium for the date the test was done and 'CA_testing' as the generic name for the testing. Here's an example that was used:

Create URL	
URL Enter the link for the website	
https://www.carersallowance.service.gov.uk/allowance/t	
Campaign Source, Campaign Medium and Campaign N	ame should always be used.
Campaign Source (referrer: google, citysearch, newsletter4)	
4	
Campaign Medium (marketing medium: cpc, banner, email)	
July_23	
Campaign Name (product, promo code, or slogan)	
CA_testing	
Campaign Term (identify the paid keywords)	
Campaign Content (use to differentiate ads)	
https://www.carersallowance.service.gov.uk/allowance/be	nefits?utm_source=4&utm_medium=July_23&utm_campaign=CA_testing

[Example of a parametered URL generated for testing purposes]

The URL was then pasted into an <u>incognito browser</u> window (so no previous cookies were retained). The real-time report confirmed that the data was being collected:

	Pageviews		
Right now	Per minute	Per second	
48	80	6	
active users on site	그 가지 가지 나	-) (
REFERRAL	40 -		
90%	20 -26 -21 -16 -11 min min min min -6	2 -1 J min - 450 bas	20(00) -150+0
Metric Total: 48			Q
Medium	Source		Active Users
1. Referral	gov.uk		47 97.92%
2. July_23	4		1 2.08%

[Real-time report confirming the session is being distinctively captured]

After waiting a few hours the data appeared in the main reporting interface in the campaigns report:

	Acquisition			Behavior		
Source / Medium	Sessions	% New Sessions ?	New Users	Bounce Rate	Pages / Session	Avg. Session Duration ?
	1 % of Total: 0.09% (1,111)	100.00% Site Avg: 70.39% (42.07%)	1 % of Total: 0.13% (782)	0.00% Site Avg: 18.18% (-100.00%)	29.00 Site Avg: 14.28 (103.02%)	00:08:20 Site Avg: 00:09:57 (-16.22%)
1. 4 / July_23	1 (100.00%)	100.00%	1(100.00%)	0.00%	29.00	00:08:20

[The test session as it appeared in the campaigns report]

This technique allowed the service team to cross check that data in the reports recorded accurately how we had browsed during testing.

Further work was done with developers to debug our analytics set-up and to check that extra tagging (e.g. events) were firing properly.

Reconciling with back-end databases

One of the other checks the team did was to periodically cross reference what our analytics was telling us with what was being shown in back-end systems. The most important was the number of service completions that were being made. Below is one of the reports comparing the two:

Completions					
Date	Analytics no.	Backend no.	Difference		
30/10/2013	293	300	7		
29/10/2013	277	285	8		
28/10/2013	334	345	11		
27/10/2013	124	128	4		
26/10/2013	66	68	2		
25/10/2013	242	249	7		
24/10/2013	288	297	9		
23/10/2013	297	298	1		
22/10/2013	303	314	11		
21/10/2013	425	435	10		

[Comparison of analytics data and back-end database]

The numbers matched quite closely which gave the team further confidence in the analytics data. It was more important to concentrate on trends, than to worry about minor discrepancies such as those shown in the right-hand column. We were expecting the analytics figures to be slightly less due to the fact that some people do not have JavaScript enabled and some users install apps to prevent their usage data being collected.

4. Starting the reporting

Once we were satisfied with the integrity of our analytics data the service team started putting in more effort into reporting.

Simplifying the analysis through visit personas

The team monitored how far users progressed with the service and then used this data to establish 4 visit personas. Applying a persona to each type of visit was an effective way to 'humanise' the data and quickly understand how the service was working over time. These were the 4 personas used by the team:

Curious	Visits that went to the start page on GOV.UK but did not click through to the service
Non- starters	Visits that went to the service but did not get past the eligibility stage
Abandoners	Visits that started the service but dropped out part way
Successfuls	Visits that started the actual service and reached the end page

Here are the personas superimposed onto the user flow:



[Personas applied to the user journey]

Using the Google Analytics API to automate data reporting

The team wanted to make our reporting as effortless as possible and so made use of automated reporting via the Google Analytics application programming interface (API). Using a <u>spreadsheet add-on</u> we were able to make queries through the API to directly populate graphs created in Google Sheets and to have these update automatically. Although the spreadsheet add-on is specifically for Google Analytics there are third party sites which can provide similar functionality for other analytics platforms.

What the data showed

0%

w/c 20/10

In the week the service was made available in Beta it received a high number of visits due to the associated publicity. A large number of visits only looked at the start page on GOV.UK and did not click through to the service itself. Visit numbers gradually tailed off.



[Weekly personas trend by numbers]

Visit percentages by type CURIOUS NON-STARTERS ABANDONERS SUCCESSFULS 100% 75% 50% 25%

Breaking the persona numbers down by percentage gave a better picture of the trend:



w/c 03/11

w/c 27/10

w/c 10/11

w/c 17/11

The team could see that over the next few weeks the percentage of curious visits declined while the percentage of successfuls began to increase. This showed that the service was heading in the right direction.

5. Moving into analysis

Initially, the service team had focussed on reporting rather than analysis. Reporting is organising data to monitor service performance, analysis is further probing to yield insights.

Once the service had been running for a few weeks we moved into analysis sprints where we sought to explore the data to extract more meaningful insights.

Assessing where users were dropping out

The goal funnels that had been configured were an obvious place to start as we could immediately discover where in the process users were tending to leave.



Funnel steps showing where users were dropping off

The above example relates to the 'About you' section which is the first section users see past the eligibility stage. It's clear to see that there is a large proportion of visits that are leaving at this point. This data allowed the team to focus on analysing the reasons why users could be dropping off with a view to reducing the rate.

Grouping sections

As the Carer's Allowance service contained a uniform URL folder structure the team set up an additional view which aggregated all the pages within a section so they appear as a single row in our analytics reports. For example, we grouped all the pages in the education section using the following custom filter:

Uppercase	
 Search and Replace Filter Field 	
Request URI 🔻	
Search String	
^/education.*	
Replace String	
Education	

[Example of custom filter to aggregate URLs within a section]

One of the advantages of having this is that it made it easier to analyse the behaviour flow reports to get a snapshot of how users were navigating through the service.

/your-claimclaim-date 23.3K	T about you	T partmentapouse
	- 1	about you 2.87K
•	a.73K	Activicality
elgibility 491 Iclaim-help	T sightly	TE olgbity
317 Jerror 203	Nour-claimclaim-date	T /daim-help 231
timeout	pay details s9 (+14 more pages)	(*12 more pages) 408
(+15 more pages) 303	299	
	eligibility 491 Iclaim-help 317 /orror 203 /timeout 88 (+15 more pages) 303	eligibility 491 1.6K

[Behaviour flow by grouped sections]

In addition, the service team constructed a <u>real-time dashboard</u> which showed which section of the service users were currently browsing. This was set up on a TV screen in the office and allowed us to observe how busy the service was at any point in the day.



[Real-time by section dashboard in office]

Ad-hoc reports

Based on sprint requirements we created a number of different ad-hoc reports and analysis to better understand how the service was being used. This was fed back to the team so we could continuously improve the performance of the service.

Some service users were entering details that showed they weren't eligible for Carer's Allowance but still continued to complete the service. Such claims cost £14.81 for the DWP to process. The service team used analytics to calculate the number of these claims (shown below), and then made it their target to prevent as many as possible.

	Unique Pageviews (CA - Nugatory) 😐 U	nique Pageviews (All	Visits)				
5	00	-		12.121			
		/		-			
12	50	/					
							-
-	Nov 17		Nov 19	No. Col	Nov 21		Nov 23
Prin	nary Dimension: Page Other =						
	Nut /Icies Secondary dimension + Sort Type:	Default +				٩	advanced 🔳 Ø
	Page ()	Pageviews 🐇 🤟	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	S DOL 1
	CA - Nugatory	311 % of Totat 0.22% (142,787)	275 % of Total: 0.24% (114,766)	00:00:43 Ste Arg 00:00:38 (14.70%)	0 % of Total: 0.00% (5.213)	0.00% She Avg: 17.01% (-100.00%)	22.51% Ste Avg. 3.65% (516.51%)
	All Visits	2,537 % of Total 1.78% (142,787)	2,288 % of Total: 1.99% (114,766)	00:00:57 Site Aug: 00:00:38 (50:38%)	2 % of Total: 0.04% (5,213)	50.00% Site Avg: 17.61% (163.93%)	32.28% Site Avg 3.65% (784.23%)
5	1. /consent-and-declaration/submit 👌						
	CA - Nugatory	311	275	00:00:43	0	0.00%	22.51%
	All Visits	2,537	2,288	00:00:57	2	50.00%	32.28%

[Analysis of claims]

Other examples of ad-hoc reporting and analysis included:

- breaking down visitor behaviour by device make and model
- looking at instances of overseas submissions and the countries they came from (high levels of instances from one country could identify possible fraud as the service is only for residents of the UK)
- comparing user behaviour between visits from England, Scotland and Wales

Analysing the digital landscape

Most of the analysis the team did was around how users were navigating through the service. However, we were also interested in the search traffic share GOV.UK was receiving for terms related to Carer's Allowance and who the competing websites were.

We used <u>Experian Hitwise</u> to gather this information and to monitor the trends over time. For example, the first screenshot below shows the top sites which acquired traffic through the term 'carer' just prior to the Carer's Allowance service going into public beta. It showed that GOV.UK was trailing behind Carers UK in the market share:

Websites receiving traffic from terms in carer					
Week ending 12 October 2013					
	Rows 10 20 100	+ to Custom List	Chart >		
	Websites (35 returned)	Se	arch Clicks 🔻		
E 1	Carers UK		18.99%		
E 2	Gov.uk		13.83%		
E 3	Age UK		7.56%		
E 4	NHS Choices		7.32%		
E 5	Patient UK		5.04%		

[Site share for the term 'carer' prior to the launch of the service]

After a few weeks in public beta GOV.UK rose to the number one spot with more than 20% of the traffic share for the term 'carer'.

Websites	Vebsites receiving traffic from terms in carer				
Week ending 2	Week ending 23 November 2013				
Previous	Next Rows 10 20 100	+ to Custom List Chart >			
	Websites (140 returned)	Search Clicks 🗸			
II 1	Gov.uk	20.04%			
2	Carers UK	6.45%			
3	NHS Choices	4.51%			
□ 4	The Princess Royal Trust for Carers	3.46%			
5	Indeed UK	3.30%			
6	Gumtree	2.74%			
7	Age UK	2.16%			

[Site share for the term 'carer' after the launch of the service]

This showed that the service was benefitting from the high ranking GOV.UK holds in search engines and was getting more exposure.

Presenting to the team

The service team hosted fortnightly 'show and tell' meetings which was a great opportunity to share insights with team members and wider stakeholders. It was also a chance to exchange ideas for further analysis and discuss blockers.

TARGET OPERATION	- Model Transmon
1 3 4 3 30	Conversions by device (entre service)

[Presenting to the Carer's Allowance team in Preston]

Examples of changes

Analysis of the Carer's Allowance service was done in conjunction with a user researcher so we could bring quantitative and qualitative data together to better understand user behaviour.

Ben Holliday, the user researcher in the team has written about <u>how research and data have</u> <u>been used to improve the service</u>. The blog post outlines the approach used and includes 6 examples which show how this works.



6. Enhancing the analytics

There were several other things the service team did to strengthen and complement our analytics set-up and reporting.

Increasing the timeout

By default, the Carer's Allowance service times out if there has been no activity for 60 minutes. By contrast, the Google Analytics default timeout for a session is 30 minutes. This meant that if a user was inactive for more than 30 minutes on the service but resumed before 60 minutes then the service would allow them to continue from where they left off. However, Google Analytics would terminate the session and a new session would start with the landing page being the point from where the user resumed.

This caused some inaccurate reporting so the team increased the Google Analytics session timeout to 60 minutes to bring it in line with the service timeout. This was done by inserting a line of extra code in the Google Analytics snippet (note that this can now be done in the Admin section if you are using Universal Analytics).

Event tracking

Most analytics platforms do not capture interaction events (such as clicks on a download button) 'out of the box'. However, through some extra coding these behaviours can be tracked to provide a better picture of the user experience.

For example, Google Analytics by default, does not provide data on clicks made on external links on a page. But by instrumenting additional 'event' tracking the team were able to break down all clicks made on external links for any page in the service.

The page below is the first page users see on the Carer's Allowance service. There are several links on the page that takes the user to a page outside the service (including to a GOV.UK page).

Gethelp	Can you get	
Read the guide		
Helpline 0345 608 4321	Does the person y	
Mon to Thurs: 8:30am - 5pm Friday: 8:30am - 4:30pm	Personal Independe	
Closed public holidays.	Disability Living Allo	
Calls answered within 5 minutes. Call charges	Attendance Allowa	
	Constant Attendan	

Examples of links on the Carer's Allowance service

Google Analytics has 2 mandatory fields for event tracking, category and action. For the category field we used the respective page URL and the names of the links in the action field. Here's the data showing how many clicks were made on the links in total and the number of unique times the clicks were made.

Event Category ③	Event Action (?)	Total Events 🤄 🤟	Unique Events ?
		218 % of Total: 0.08% (272,416)	186 % of Total: 0.15% (123,785)
1. /allowance/benefits	Claim Notes	106 (48.62%)	97 (52.15%)
2. /allowance/benefits	Help and Feedback expansion	54 (24.77%)	44 (23.66%)
3. /allowance/benefits	Language Selection Welsh	35 (16.06%)	25 (13.44%)
4. /allowance/benefits	Helpline	15 (6.88%)	13 (6.99%)
5. /allowance/benefits	Language Selection English	4 (1.83%)	3 (1.61%)
6. /allowance/benefits	Open Government Licence	3 (1.38%)	3 (1.61%)
7. /allowance/benefits	Your Feedback	1 (0.46%)	1 (0.54%)

[Clicks on links on the first page of the service]

By having a very uniformed naming convention it also enabled us to shape the data in different ways using custom reports. For example, we could create a report which showed the total number of times the 'Claim Notes' page link was clicked on in the service, and then drill down to show a breakdown of the pages in which it was clicked on.

Event Action ②	Total Events 📀	Ŷ
	%	1,839 of Total: 0.68% (272,416)
1. Claim Notes		1,839(100.00%)

[Custom report showing the total number of clicks made on the Claim Notes link]

Even	at Category ⑦	Total Events 🕜 🗸 🗸
		1,839 % of Total: 0.68% (272,416)
1. /a	llowance/carers-response	1,338 (72.76%)
2. /c	consent-and-declaration/declaration	171 (9.30%)
3. /a	illowance/benefits	106 (5.76%)
4. /a	bout-you/your-details	51 (2.77%)
5. /y	our-claim-date/claim-date	27 (1.47%)
6. /o	ther-money/about-other-money	21 (1.14%)
7 /0	ansant and declaration/declaimer	12 (0.747)

[A breakdown of the pages from where the clicks were made]

Dashboards

The service team also built a number of analytics dashboards to quickly check the health of the service and see correlations between different reports. These were built as custom dashboards within Google Analytics and separate to the performance platform dashboard. They're a quick way to automate important data and to share with team members and stakeholders.

The dashboard below shows high-level metrics for the service including the most common pages users drop out:

Carer's Allowance - High level data			Jun 1, 2014	Jun 1, 2014 - Jun 30, 2014 -		
Add Widget Share - Email	Export +		Customize Dashboard	Delete Dashboard		
All Sessions 100.00%		+ Add Segment				
Visits to Service		Visits trend				
33,921 % of Total: 100.00% (33,921)	~~~~	Sessions New Users		2,000		
Unique Visitors			May M	-		
27,311 % of Total: 100.00% (27,311)	non			H		
New Vielane Obsend on cookie	-	- nut 8 nut	15 Jun 22	Jun 29		
74.54% Site Avg: 74.54% (0.00%)		Top Exit pages		✓ ×		
		Exit Page	Exits	% Exit		
Visits acting past Eligibility st	909	/thankyou/apply-carers	11,043	2.69%		
22 161	ago	/allowance/benefits	8,944	17.90%		
% of Total: 100.00% (22,161)	www	/about-you/your-details	3,189	11.51%		
		/circs-async-submitting	1,707	53.65%		
1c. reached End of Transactio	n name (Go	/internal-claim-notes/en	1,112	12.20%		
14 724	ni balla (corri	/timeout	1,005	6.23%		
% of Total: 100.00% (11,731)	www	/claim-notes	892	63.99%		
		/allowance/carers-response	821	11.20%		
Visits encountering a Timeout		/allowance/hours	425	10.33%		
1,877 % of Total: 0.37% (501,366)	NVVV	/care-you-provide/their-personal-details	409	5.59%		
Visits encountering an Error 6						
% of Total: 0.00% (501,366)	*.v					

[Dashboard example]

Setting up alerts

It's not always apparent when there have been statistically significant variations in the analytics. These anomalies can be easily missed such as a spike in traffic from overseas visitors.

To detect these variations the service team made use of the 'Intelligence Events' functionality in Google Analytics. This allows the creation of custom alerts which are triggered when traffic on a site reaches a specific threshold. We set up several alerts for the service which sent an email to relevant people if the condition was met. The example below shows the custom configuration to send an email alert if traffic to the service has increased by more than 20% compared to the same day in the previous week:

Apply to: 1. Period:	Carers Allowance (Main) and	0 other views 🔻		
Period:				
	ay -			
Ø	Send me an email when this ale	art triggers. Also include	4 other email addr	esses 🔻
×	Setup your mobile phone to rec	eive a text message abo	out Intelligence Al	lerts
Alert Condi	tions			
This applies t	0			
All Traffic	-			
Alert me whe	n Conditio	n	Value	Compared to

[Example of an email alert]

Annotations

To make it easier to tie our analytics with design changes the team put a process in place for annotating our data. Any major releases or factors which could affect our usage figures were entered into the built-in functionality in Google Analytics. When viewing historical data this helped to understand the possible reasons behind fluctuations in the reports.



[Examples of annotations added]

PadiTrack

Although Google Analytics has some good functionality to measure goal funnels it has 2 major drawbacks. Data is only processed from the point goal funnels have been configured and it's not currently possible to apply segments to the data.

This means there are severe limitations when analysing data so we made use of a third party tool called <u>PadiTrack</u>. PadiTrack can be integrated with Google Analytics and allows retrospective funnel tracking and the ability to segment the data such as traffic only from mobile devices.

The example below shows the funnel for the pages in the eligibility section segmented by mobile users:



[PadiTrack funnel]

The service team used PadiTrack extensively to break down funnels by different segments. This was done in partnership with the user researcher to better understand specific reasons why users were dropping out.

7. Summary

The Carer's Allowance service passed the <u>live service standard assessment</u> in November 2014. It's now being run completely without GDS assistance, and there is a DWP performance analyst embedded in the team.

There are many ingredients required to make a good digital service. Digital analytics is one of them. Being able to demonstrate that the service team makes good use of analytics is essential for your service to pass the live service assessment. This document has shown how analytics was successfully introduced into the Carer's Allowance digital service.

To sum up, service teams should:

- consider analytics requirements right at the start of the planning process and incorporate them into the sprint planning
- acquire a suitable analytics package and dedicate an analyst at the beginning of developing the service. (Note that this case study does not imply recommendation of any of the tools mentioned)
- as far as possible, design the service in a manner that obtaining required data is simplified (e.g. having unique URLs for each step)
- only measure what is important in identifying whether the service is working
- avoid reporting everything, concentrate on analysis that will reveal actionable insights
- monitor trends rather than isolated instances
- devote time and resource to implement extra tagging to enable more powerful insights
- build a series of views of the data and use filters to measure different aspects of the service
- configure goals and funnels to monitor success criteria is being met
- audit the data to ensure accurate measurement is being done
- consider niche products that can enhance analysis (e.g. PadiTrack)
- work in partnership with user researchers

If you are interested in using digital analytics to help improve user experience on your projects and want to find out about future events then request to join the <u>Digital Analytics for UK</u> <u>Government Services</u> community.

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