

PADDY BRESLIN

UX / PRODUCT
DESIGN & STRATEGY

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Genesys - Dialog Engine

June 2018 - to present

Chatbot builder platform (Enterprise Software)

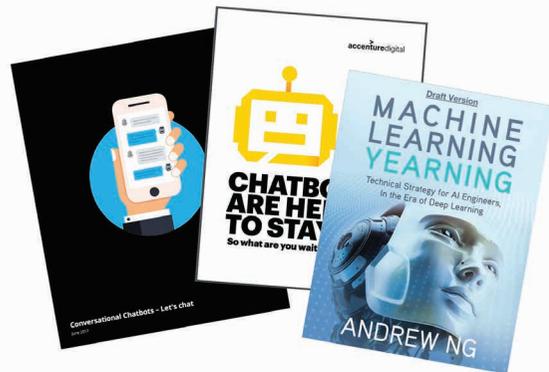
Dialog Engine allows users to create Chatbots using the power of A.I. and Natural Language Understanding.

These bots can then become the frontline in the customer service effort, reducing costs and friction.

The challenge is creating a user interface that makes this complex technology easily understood and utilised. Allowing people to build conversations that make sense to the human and the bot.

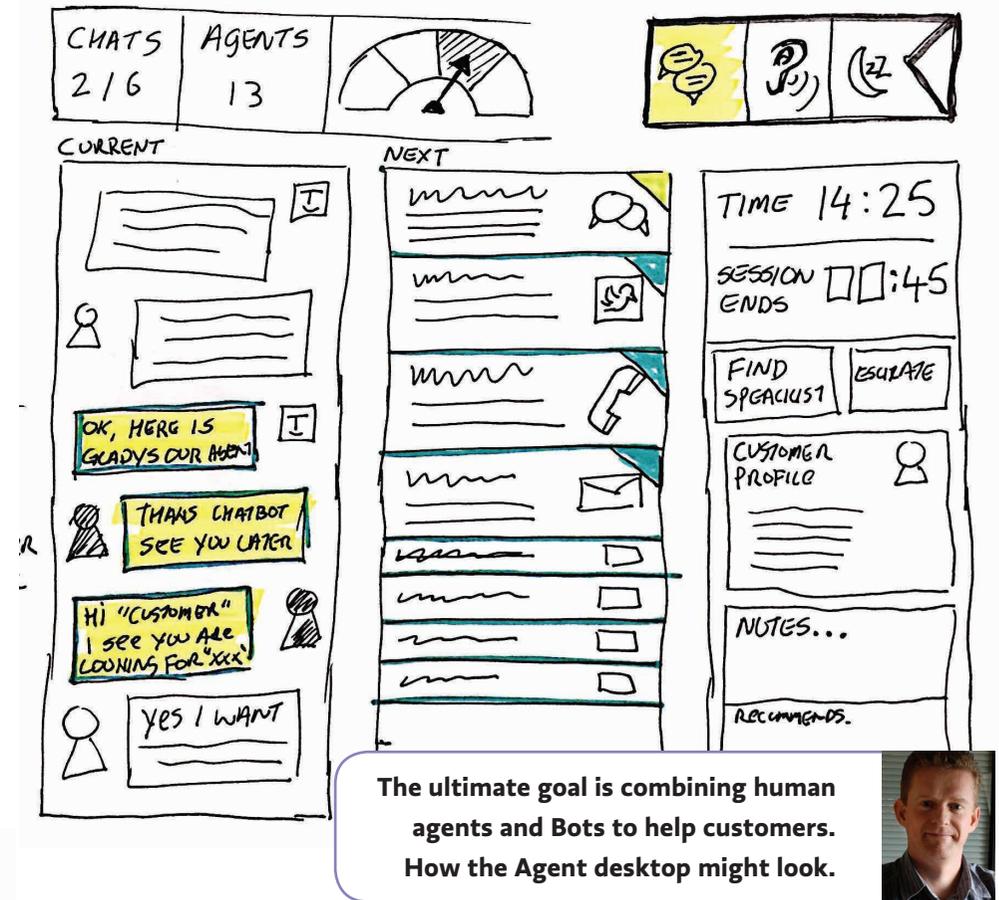
Research

- It was difficult to get access to our enterprise users. So to get some initial insights I looked at industry research. This help us understand the attitudes and expectations of businesses and consumers towards Chatbots and AI.
- Interestingly, while many companies think customers don't want to use bots. I found that consumers are more aware of them than we think. And generally people don't care about the technology, as long as their problem gets solve.



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Human and Agent combination desktop Mockup

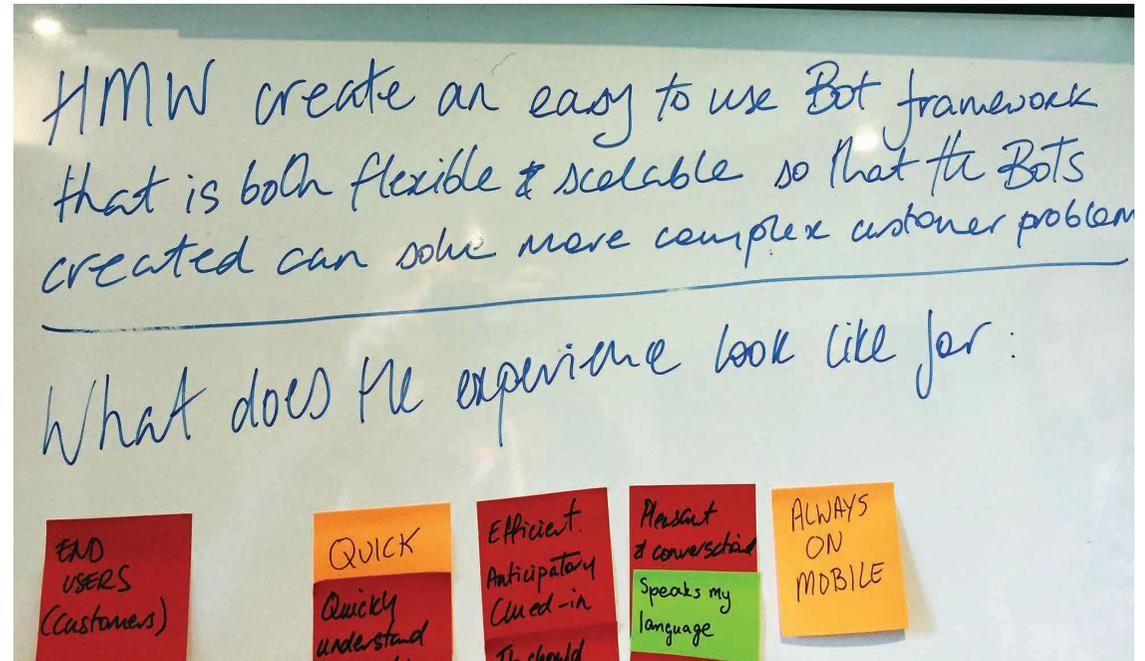


Learning the tech

- To begin with, I had to get myself to a higher level of AI understanding. So I reached out to the wider group developing relationships with our Data Scientists, AI Engineers and Computational Linguists.
- Understanding how the team fitted together and the overall product objective, was invaluable in my work.

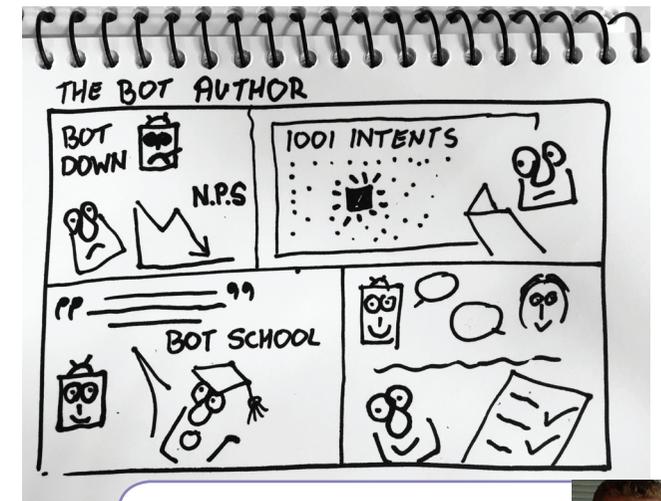
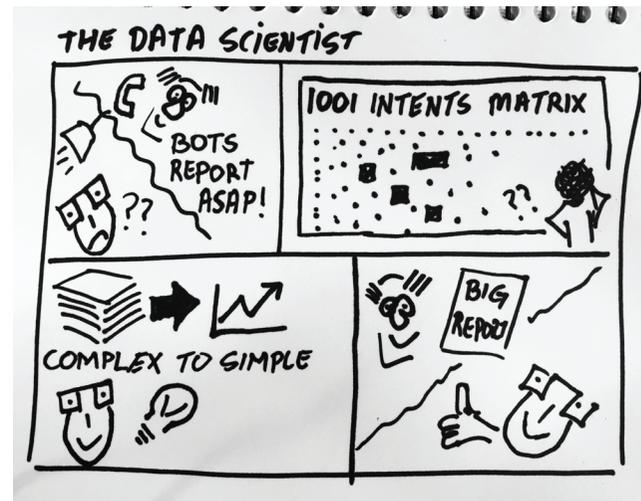
Setting out our stall

- We conducted some early discovery sessions to frame the problems and to avoid us jumping into early untested solutions.
- We realised that two distinct user types were emerging.
- **The bot creator:** Our primary consideration was for this user, and our interface was being built for them.
The end user: We couldn't control the channel where the chat took place. But we did have to ensure that our product allowed people create conversations their end customers can relate to.



Collective vision of the user

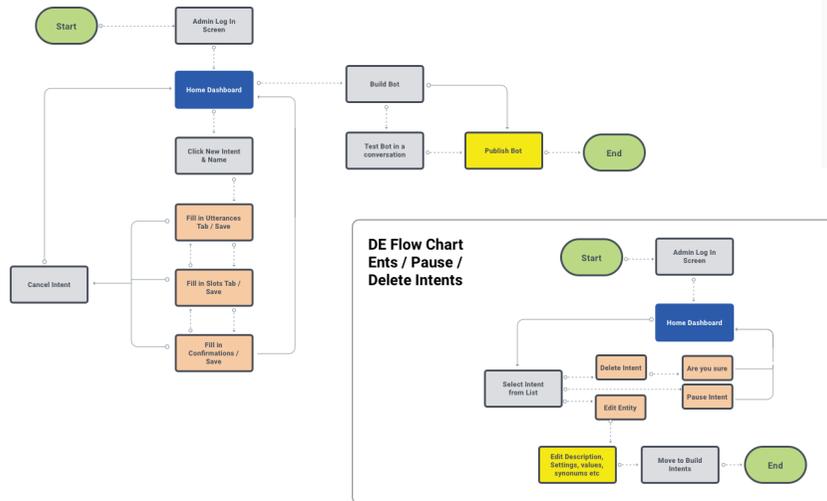
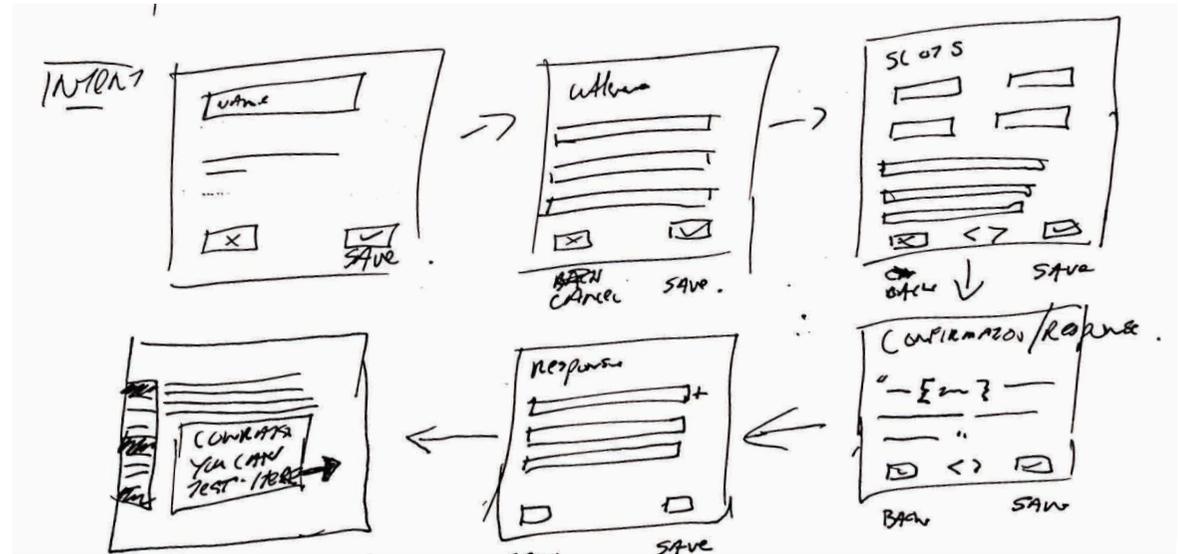
- To get insights into the product direction and business expectations, I met with the product owner, sales and some of our clients. This really helped to firm up the user scenarios.
- We explored the various users that Dialog Engine might have, from Data Science people creating and reporting on the models, to perhaps Marketing staff wanting to create conversations with their customers.
- This tied in well with research that showed businesses initially see this product as a cost saver. But over time expect it to generate revenue through marketing channels.



I created storyboards to better understand the user and the issues they want solved.

The user journey

- Testing screen flows in low fidelity for us was the best way to get clarity on what is working and what is not.
- These roughs help the Front End developers and I to get a consensus on what flows made sense to a user, and what the implications might be for the team backlog.



Sketch prototypes

- At the same time I began prototyping, this was a great way to share our progress with stakeholders. And in return they provided us with useful feedback.
- The mock-ups were refined further using branding and style guidelines and finally built into version 1.0.

Intent	Description	Start Date	Performance	Status
Exchange Rates	Foreign Exchange Rates	08/17/19 12:00:17	21%	Running
Find A Branch	Location of all Branches	08/15/19 13:01:55	33%	Running
Interest Rates	Current Interest Rates	08/09/19 12:02:36	23%	Paused
New Intent	General Opening Hours	08/06/19 08:05:00	65%	Running
More...	How to open new acct	08/04/19 14:57:50	44%	Needs Updates
More...	How to Close acct	07/27/19 09:59:54	65%	Paused
More...	My Mortgage balance	07/20/19 09:31:41	21%	Paused
More...	Current Acct balance	07/18/19 13:33:01	33%	Running
More...	Student Loan info	07/16/19 16:50:53	23%	Running
More...	Car Loan info	07/14/19 11:18:49	65%	Running
More...	home loan info	07/14/19 08:52:05	44%	Running
More...	some text here	07/13/19 14:18:14	65%	Running
More...	some text here	07/13/19 09:41:54	21%	Running
More...	some text here	07/12/19 11:16:57	33%	Expired
More...	some text here	07/07/19 10:11:34	23%	Running

Early sketching, is the quickest way for me to filter and visualise ideas, before prototyping.



Dialog Engine Gladys Woodward

Domains | Currency Holding Import Export Changes Not Saved Save Publish

Bank of Ireland

New Intent Search

Utterance	Status	Predicted Intent	Assign to Intent
<input type="checkbox"/> Can I pay off my Credit card online	Correct	Credit Card	Correct
<input checked="" type="checkbox"/> I need some money for a holiday to Vietnam	Incorrect	Foreign Exchange	Incorrect
<input type="checkbox"/> Is there a ATM close to the train station in Galway	Unknown	Find A Branch	Unknown
<input type="checkbox"/> I think my Visa card has been swiped	Correct	Credit Card	Credit Card

Intents

- New Accounts
- Mortgage Rates
- Find a Branch
- Car Loans
- Student Loans
- Credit Cards
- Foreign Exchange
- CurrencyHolding**
- CurrencyRequired
- Add trigger

Entities

Evolution of a prototype

- In parallel with user research and testing, we also refined our UI to a higher fidelity, aligned with design guidelines.
- Once the product was launched, prototyping became the first exploration for new features and user interactions.

Later high fidelity prototypes

Early on we placed less emphasis on the branding guidelines in order to get prototypes built quicker.

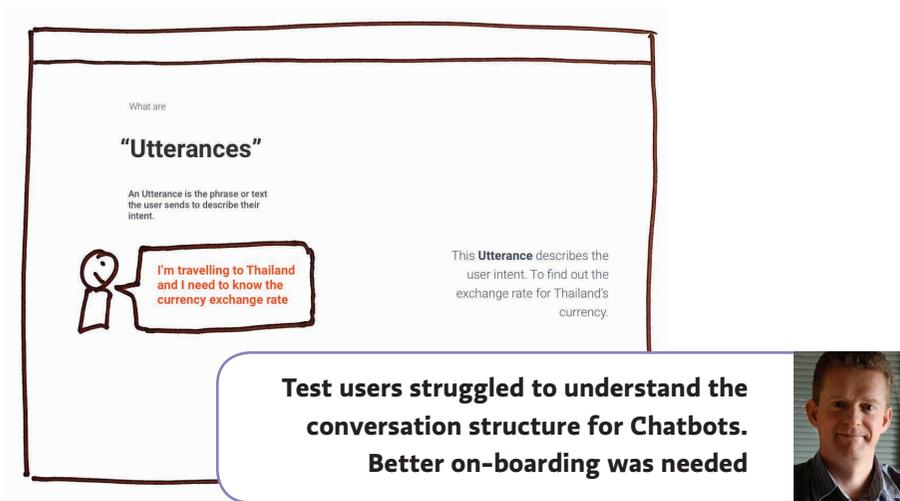
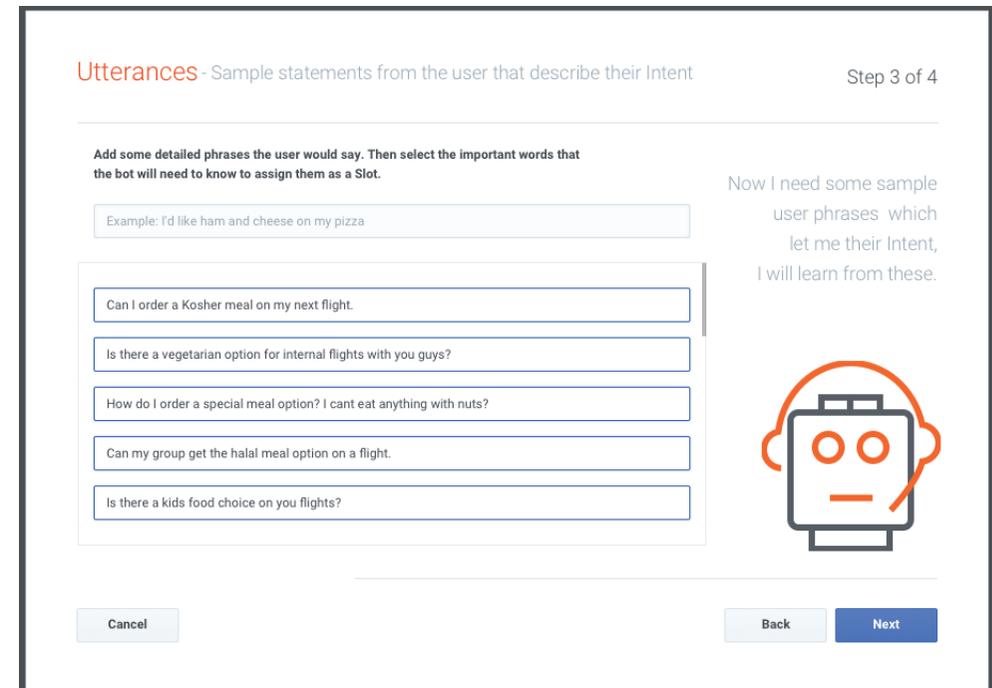
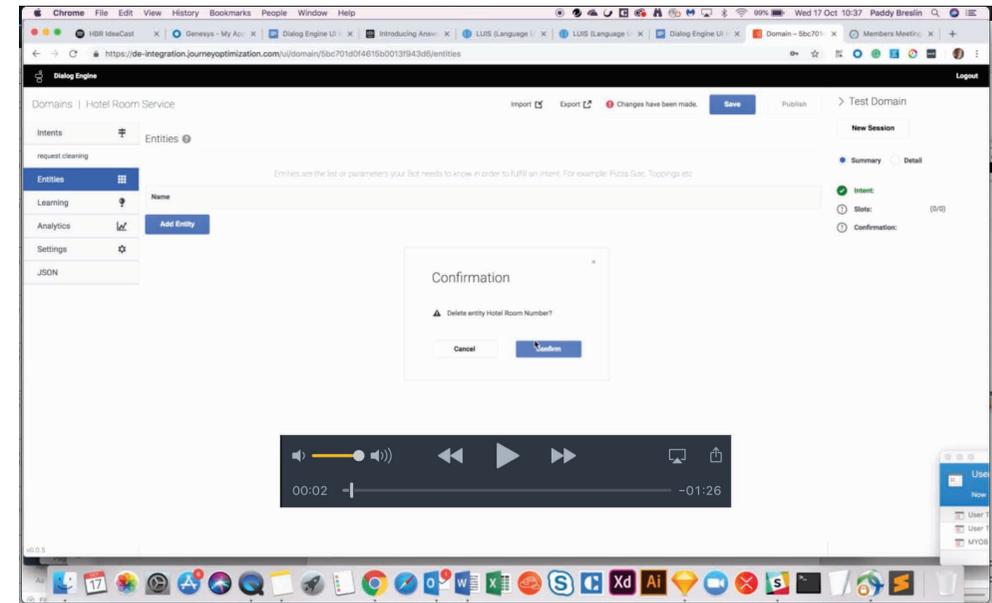


User testing insights

- Once we had a working UI, I organised some guerrilla testing with colleagues from another product team.
- This was immensely valuable, we clarified some of the issues around the user journey, layout and labeling.
- Most importantly it helped us to understand the mental model users had for authoring Chatbots.

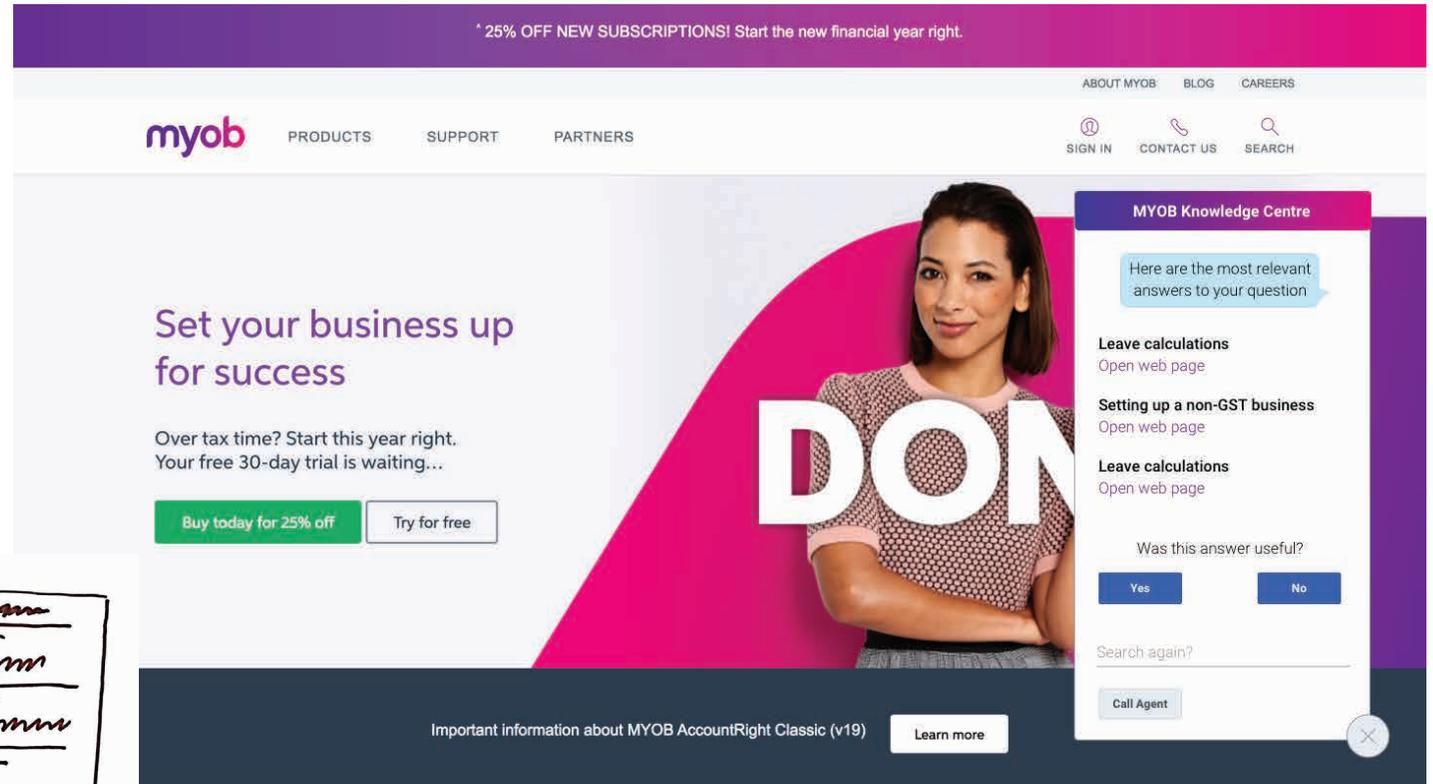
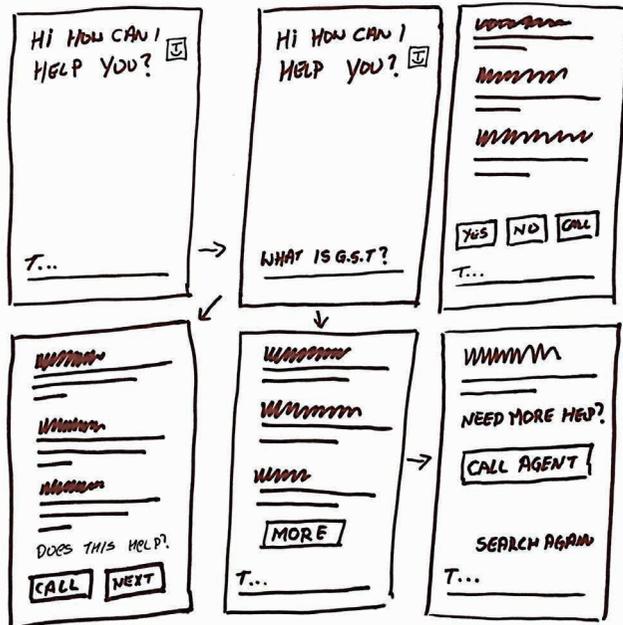
The need for better on-boarding

- The testing showed that users needed much more help to get up and running quickly.
- I explored the idea of using the flow of a conversation to show how writing dialog for bots is done.
- This evolved into an on-boarding mock-up that built a basic working bot in four screens. With explanations at each step.



Exploring use cases...

- The ability to automate conversations gives us opportunities to solve more and more problems for our clients and their customers.
- We mocked up a quick prototype demo for a Knowledge Bot that uses NLU to understand user questions and resolve to the closest match answer.
- This also gave us a change to show the power of widgets such as buttons and links.



Our engineers built a working FAQ bot, and I prototyped a UI in Sketch to demo to this customer

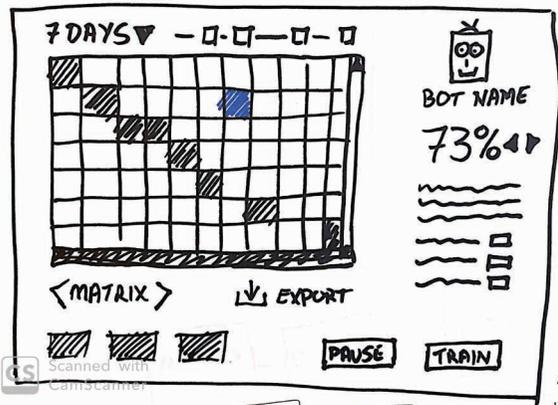


“Knowledge-bot” hack demo presentation for MYOB, Australia



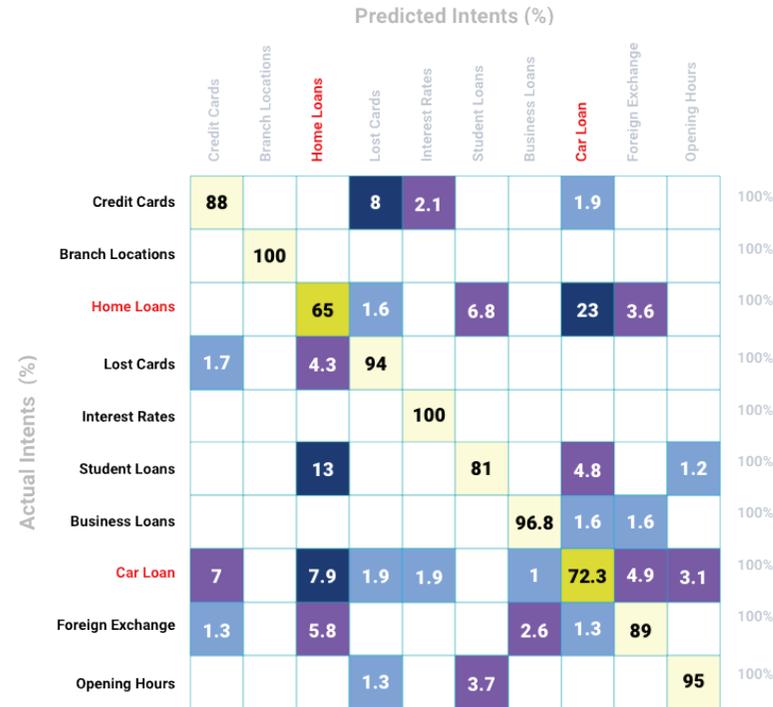
The Next steps...

- The next major steps for Dialog Engine is a visualisation concept to help user assess and improve the data models they are building.
- The engineering work at the back end of this is going to be substantial. Therefore it is important that we explored with customers the solutions via a prototype prior to the build.
- Initially we looked at several methods for the data view, a ROC/AUC curve, Confusion Matrix and a more conventional Table View.



Confusion Matrix - View All

Change View



Banking Chatbot

Health 68%



The 'Health' score for your bot is equivalent to an F1 score. [Read more](#)

Intent Accuracy Level: 80%

Set the level of accuracy that is acceptable for each Intent. If accuracy drops below this level, the relevant Intent will be highlighted with a red border.

Confusion Levels

Adjust the sliders to set confusion levels.

- Severe confusion action required.
- Moderate confusion to be monitored.
- Minor confusion to be ignored.

0% 100%
2% 7%

Cancel Update



I went from quick hand sketches to a high fidelity Sketch prototype, allowing us to get feedback without coding.

Analytics/Insights demo for Travelers Insurance, USA



Animated Language Learning Feb 2017 - to present

Helping kids to communicate (Start-up)

The Dodd family have built an amazing SAAS product which helps non-verbal Autistic children learn to speak.

I came in to help them better tell their story, and to identify and reach as many new families as possible.

The original website simply portrayed the online product, and didn't really convey the incredible difference it could make.



Usability review and fixes

- I started with the obvious violations listing and rating them by severity
- We also trimmed down the site consolidating it into fewer pages.
- Next we defined a simpler user journey and goals.

A	B	C	D	E	F	G	H	I
Description	Fix	Link	1	2	3	4	5	Heuristic
Menu bar has a field called home	Remove this and have logo top left become home link	http://kidspeak.info/				X		4
Home & About page image too large.	Reduce to be above the fold and show text side by side	http://kidspeak.info/who-are-the-dodd-family/			X			4
Is the 2 lines of text clear enough	Learning language through Disney Stories	http://kidspeak.info/		X				4
Button colour and look needs to conform	Same button design throughout site				X			8
Text below picture not centered	Centre text		X					8
Symbols on timeline don't work with story	better symbols or even photos and dates			X				8
Quotation on bottom are vague	Add pictures of the people quoted		X					2
Button link takes user to page with just image and text	Go to form or extra line of text (read our story below) reduce pic						X	5
Timeline not very engaging	Consider horizontal, better graphic / photos			X				8
Autoplay on video will irritate users.	Turn off				X			3
Footer changes	Change same as ALL site.			X				4

Heuristic Evaluations
1 Visibility of system status
2 Match between system and the real world
3 User control and freedom
4 Consistency and standards
5 Error prevention
6 Recognition rather than recall
7 Flexibility and efficiency of use
8 Aesthetic and minimalist design
9 Help users recognize, diagnose, and recover from errors
10 Help and documentation

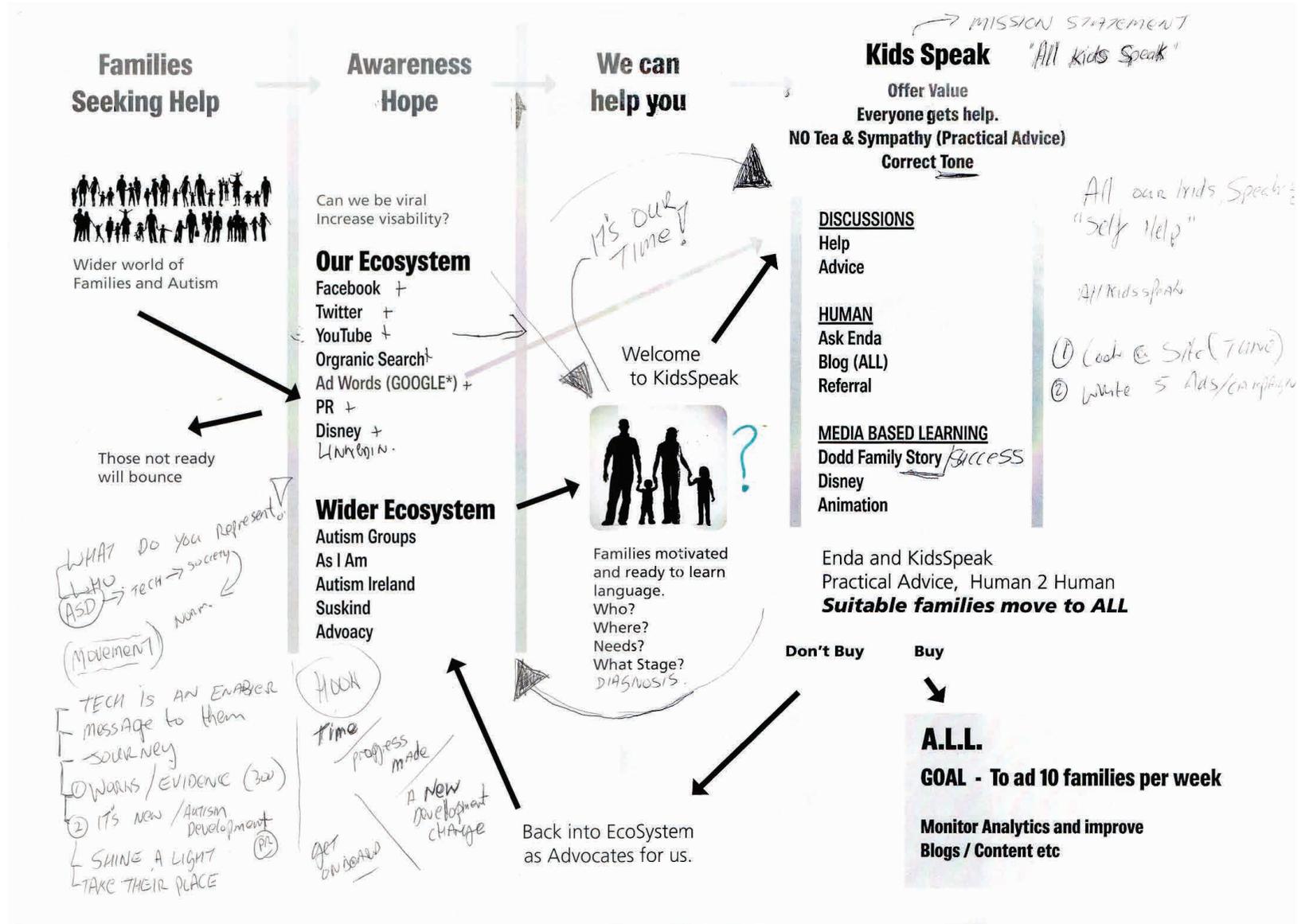
First job, conducting an overall Usability Heuristic review.



The screenshot shows the homepage of 'Kids Speak'. At the top, there's a navigation bar with links for 'Our story', 'Learn from us', 'Our videos', and 'Contact Enda'. The main heading reads 'Help your child to Speak' followed by 'We show parents what's possible for all kids'. Below this is a testimonial from a 'Special Needs Education Advocate' with a 'SPEAK TO ENDA TODAY' button and the text 'Just because your child is not talking, doesn't mean they can't speak!'. To the right is a video player titled 'My emergence from Autism' with the subtitle 'This is my story Emergence from Autism'. Below the video is a link to 'Read about our emergence from Autism'. At the bottom, there's a paragraph of text explaining the story of the boys and a final note: 'I hope this will be of help to you, feel free to contact me about your child.'

The Eco-System.

- Our collaboration widened out to look at the entire startup project, its direction and strategy.
- We explored all the touch points where we could reach our potential users.
- This evolving document helped us to focus on the interactions with those families who needed help.
- This process has also aided Enda in getting some early investment funding, and interest from potential investors.

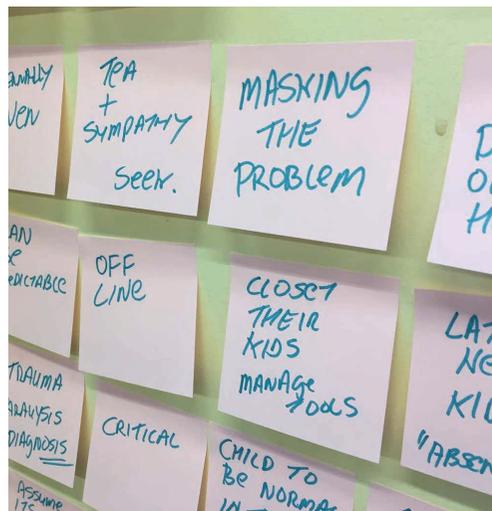


We sketched a vision of our customer acquisition plan and eco system.



Customer identification

- I wanted to explore with Enda his experience with customers good and bad.
- We did a Q&A session, recording the nuances of the families that signed up for the program, and also importantly those that didn't.
- Through this process we identified characteristics of each side of that sign-up divide.
- We learned that societal norms are very powerful in preventing some families from seeking help.
- Those that join the program are open, honest and aware of their child's future challenges.
- Those that don't tend to be immersed in the problem, but also easily accept the idea that there is nothing they can do.



This customer discovery Q&A session, helped us define the target families.

“My son can’t speak”

**0-3 Years Old
Likely no diagnosis**

“Causes of Speech Delay”

**3-5 Years,
starting school
possible diagnosis**

“Teaching Non Verbal Children”

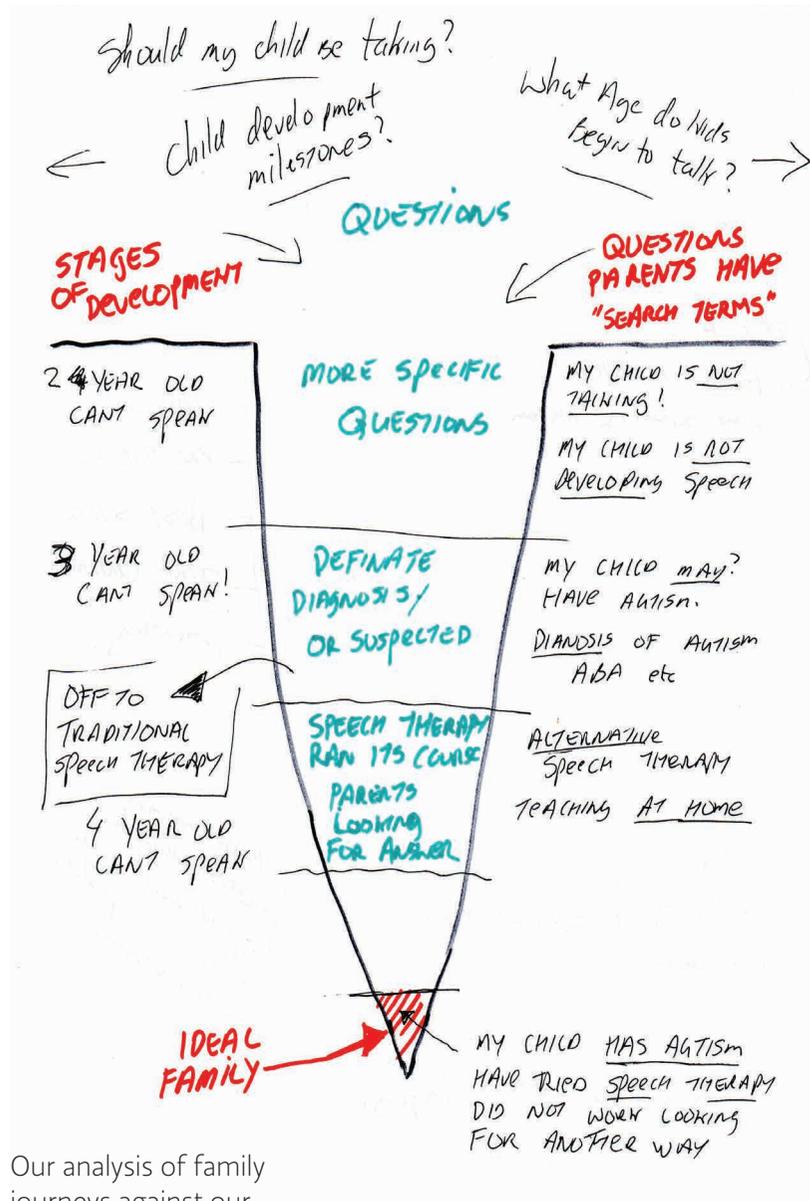
**5+ years, needs intervention,
definate medical diagnosis**

Measure and Learn

- This explosion in data allowed us to experiment with different combinations of Ads and landing pages. Not only increasing the volume, but the quality of the traffic.

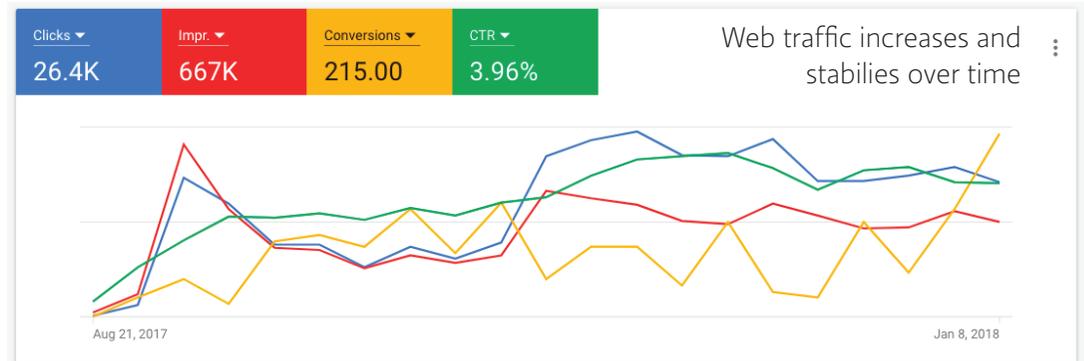
Data insights

- Looking at the traffic gave us valuable insight into the relationship between the search terms and where families were on their autism journey.



Our analysis of family journeys against our engagement strategy

www.paddybreslin.com



Learning from the Data

- We secured a social enterprise AdWords grant from Google, which meant we could increase web traffic 10x.
- This explosion in data allowed us to experiment with different combinations of Ads and landing pages. Not only increasing the volume, but the quality of the traffic.
- These changes have resulted in recurring revenues and a predictable cycle, which has allowed Enda to look at the wider view, and he is currently engaged in securing funding from the EU to scale his product.



Working with the Dodds has been one of the most rewarding experiences I've had.



Redesign www.advertiser.ie Jan 2014 - May 2014

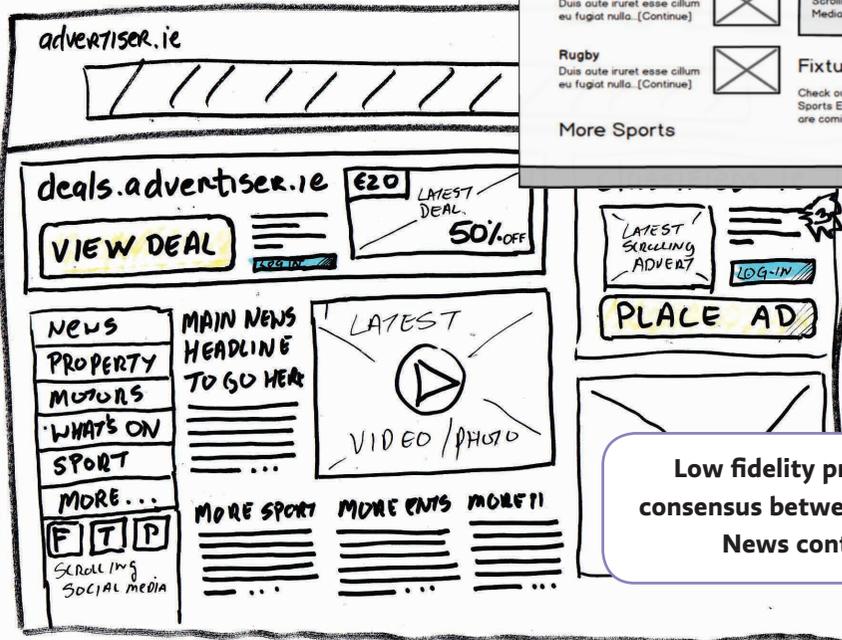
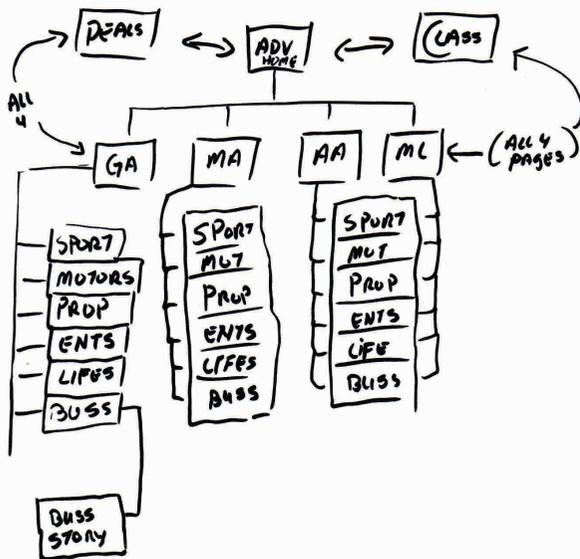
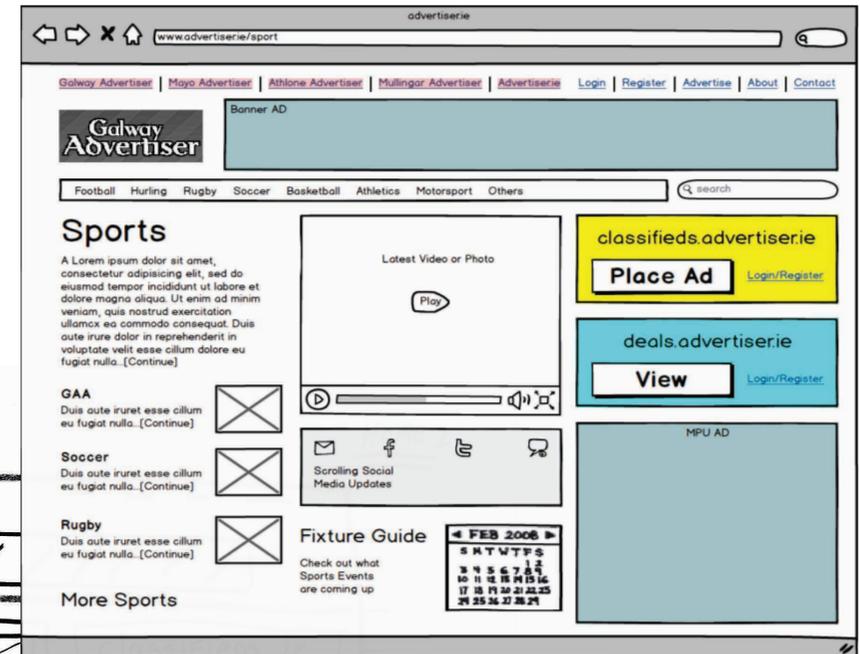
Website redesign

A new online classified ads, and a deals product needed to be incorporated into the main website.

The site also needed to include new features, sections, and content. As well as a better

visual presentation and user experience.

Stakeholders had little understanding of web development or UX principles so we had to explain our process and benefits as we went along.



Discussing the flow between each local news site and the new additions

Low fidelity prototyping, help us reach a consensus between competing elements of News content and Advertising slots.



User Testing classifieds.advertiser.ie June 2014

The problems

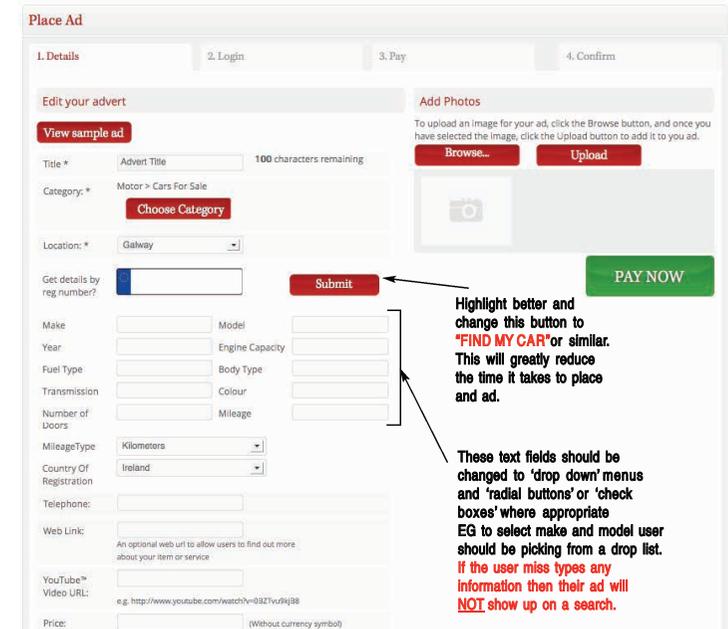
This classifieds ads website was built externally, I felt that the final product had some major usability issues.

Myself and a colleague conducted guerrilla user testing to explore and document the problems and push for vital fixes to be done.

This testing was valuable, unfortunately the company decided against resourcing changes to the site at the time.

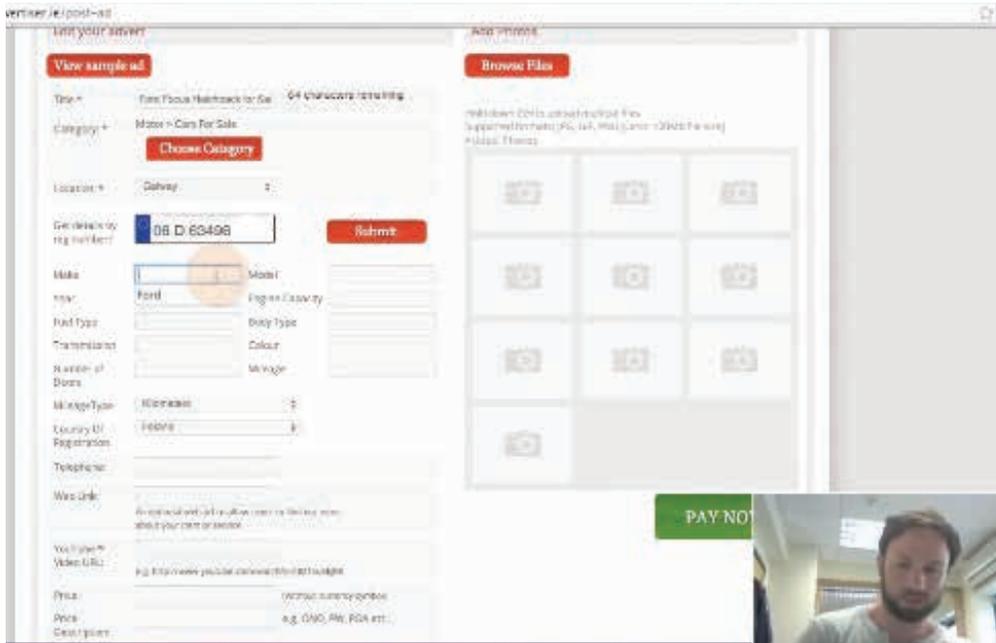
We linked our testing metrics to the major business goals.

- Ads placed as a % of visitors
- Sellers contacted as a % of visitors.
- Average time it takes to complete a given task.
- Ability to find a specific product for sale.
- Ability to place an ad.

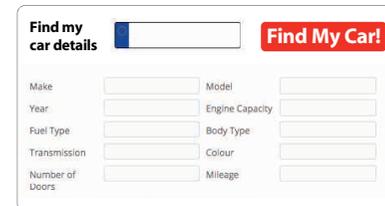


Highlight better and change this button to "FIND MY CAR" or similar. This will greatly reduce the time it takes to place an ad.

These text fields should be changed to 'drop down' menus and 'radio buttons' or 'checkbox boxes' where appropriate EG to select make and model user should be picking from a drop list. If the user miss types any information then their ad will NOT show up on a search.



All test users missed the car registration shortcut



A

Alternative redesign ideas for this section.

This could be a good opportunity to do an A/B test.



B

Alternative visitors to the site would see a different version of this element (A or B).

By tracking over time their responses we can determine which version works best.



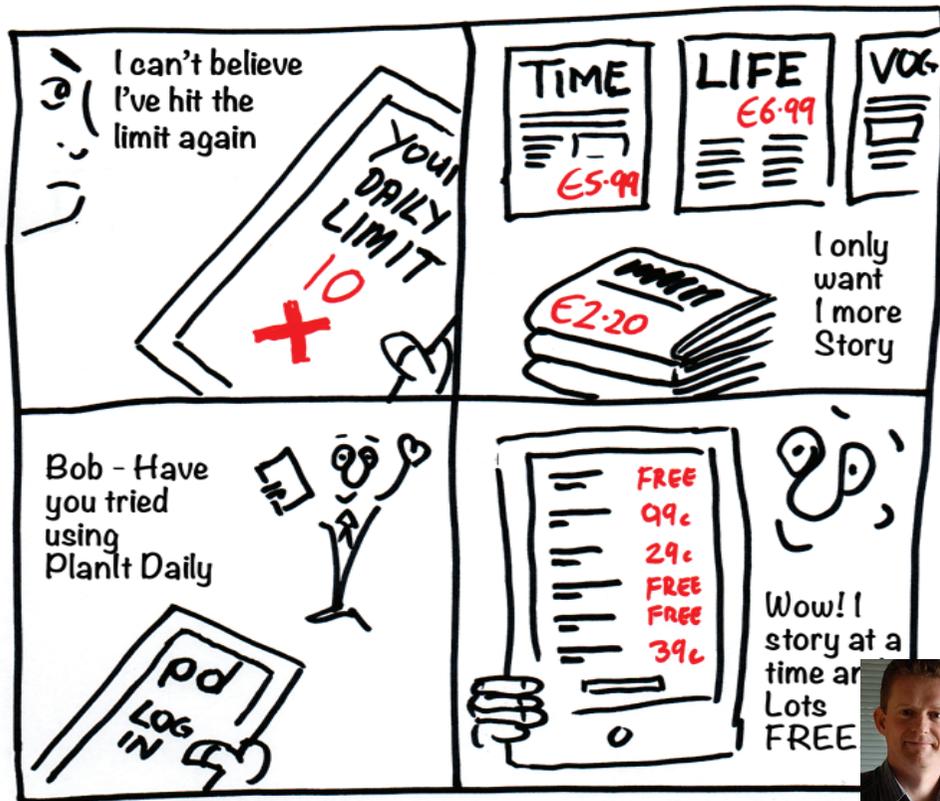
I presented the results to the stakeholders with some redesign fixes for the most severe problems.

Planit Daily June 2016 - Feb 2017

News Delivery Platform (Concept)

Planit Daily is a platform concept that allows users to consume online news articles paying for them individually rather than subscribing to each publication.

Final Project - Digital Skills Academy
- BS Hons. Degree, awarded 1.1



Storyboarding help me to share the concept and recruit a product team.

Product, Market, Fit.

- To test our hypothesis we got out and interviewed people about their media consumption habits. Below are the great insights this gave us.

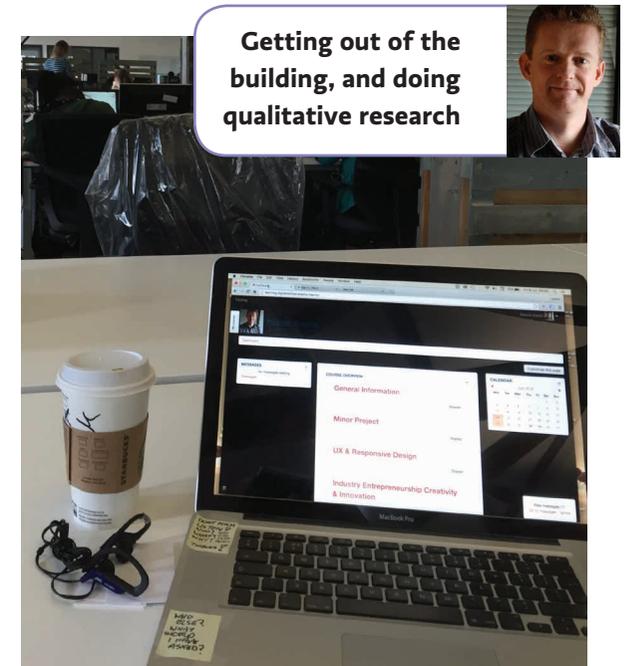
“I get most of my news from Reddit or some RSS feeds”

“I keep impartial about everything as far as possible, always looking at what the actual source is.”

“I don't mind paying (Netflix) if the content is increasing, but if they run ads, I would cancel.”

“The only thing I pay for is Spotify, I find the ads are very distracting when I'm working”

“I did subscribe to the Economist, was good but a bit expensive”



Galway Start-Up Weekend

Arrow is a concept App to aid travellers when navigating unfamiliar airports. It also helps them find services and shops they require.

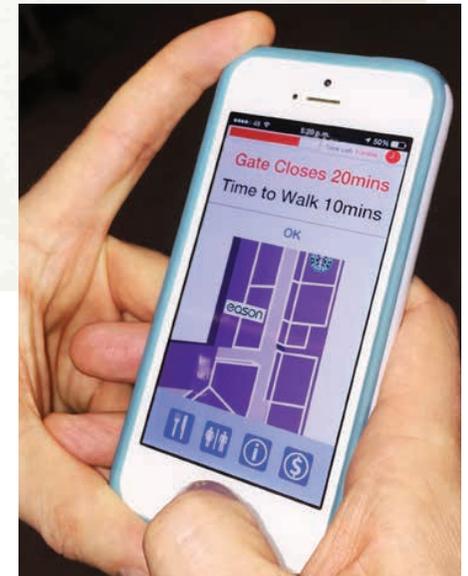


JOHN
 HOLIDAYS
 COFFEE ✓
 CHINESE FOOD ✓
 NEWSPAPER ✓
 IMPATIENT ✓

DUB DEP
 SUN MORN
 MADRID 5:40
 FTNANS DESK
 1983



"John" our proto-persona helped us focus on the user over the weekend



I mocked up our solution in Photoshop and created a prototype with InVision



Who is the user?

- We spoke to other participants about their travel experiences and from this we created our persona.
- Our team then ran scenarios looking at users in airports, the typical journey we all take. From initially booking a flight to finally sitting in your seat.
- Also we considered the possible revenue options of push notifications from retailers on this path within the airport.

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THANK YOU!

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