DASH.

DESIGN
REPORT .

CONTENTS .

INTRODUCTION .

in 2018 over 220,000 reported accidents in vehicles

only 27% of drivers have a dash cam in their vehicle

INTRODUCTION .

Everyday there are over 600 reported vehicle accidents, yet only 27% of drivers in the UK use dashcams. Research indicates 72% of people believe a dashcam would be beneficial. My product – Dash, a smartphone-based dashcam and black box recorder – gives customers the benefits of a dashcam without the need for new hardware, making it more accessible to wider audiences and saving them money.

Dash aims to encourage better driving as studies show people drive in a safer manner when they know their journeys are being recorded. It pays for itself by lowering insurance premiums for young drivers who struggle to find reasonably priced insurance particularly after being involved in an accident.

Dash has allowed me to bring together all of the skills learned on my placement and put them into action on my own product. It's been exciting bringing my idea to life.

RESEARCH .

Without valuable research, both in terms of the context and users, Dash could be trying to solve a problem that doesn't currently exist, or worse create a new one.

At different stages of the project I completed research, adding insight and value to Dash. In order to effectively collect data at each stage I used a variety of methods. Each of these methods allows me to collect a specific type of data.

The main pieces of research I undertook were preliminary market research, early-stage target audience research, and in-depth user research. Each of these provided me with helpful insights that in turn contributed towards decisions made for Dash.

I carried out market research at the beginning of the process to ground the project and provide me with a solid understanding of the industry. This allowed me to gain valuable insights that furthered my case for creating Dash.

The use of dash-cam footage in car accident claims has risen by 285% in the past two years, according to research by Accident Exchange. 72% of drivers believe that all drivers should use a dash cam however, only 27% of drivers are now using dash cams in the UK. This leaves a significant gap in the market along with a number of questions as to why more people don't use dashcams if they believe they are beneficial.
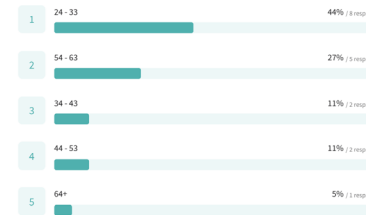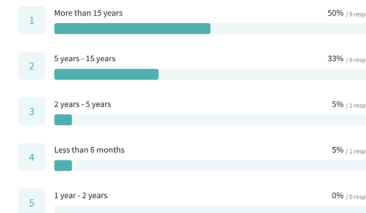
Drivers
18 responses

What age bracket do you fall under?
18 out of 18 answered

1	24 - 33	44% / 8 resp.	
2	54 - 63	27% / 5 resp.	
3	34 - 43	11% / 2 resp.	
4	44 - 53	11% / 2 resp.	
5	64+	5% / 1 resp.	

How long have you held a full driving licence?
18 out of 18 answered

1	More than 15 years	50% / 9 resp.	
2	5 years - 15 years	33% / 6 resp.	
3	2 years - 5 years	5% / 1 resp.	
4	Less than 6 months	5% / 1 resp.	
5	1 year - 2 years	0% / 0 resp.	

⌄ Show more (1)

Do you have a dash cam fitted in your car?
18 out of 18 answered

25

25% of drivers under 22 have been involved in an accident*

33

33% of young drivers surveyed use a black box app*

66

66% of everyday drivers have a dash cam in their vehicle*

70

70% of everyday drivers felt a dash cam was beneficial *

To gather information about my target audience I produced some basic surveys designed to provide knowledge about the habits and opinions of users. I split users into two groups. Young drivers aged between 17-24 and everyday drivers aged 25 and upwards.

The surveys had similar questions to allow for comparisons across all users but each of the surveys also included more specific questions aimed at that audience. For young drivers, trying to bring insurance costs down seemed an important area to uncover. Whilst for everyday drivers I wanted to understand more about commuting and regular travelling.

The surveys were posted on various channels such as relevant subreddits, Twitter, and Facebook in order to reach a page number of potential users.

* BASED ON DASH SURVEY

All of this research culminated into a set of deliverables; user personas, empathy maps, and journey maps. Each was developed using insights from the research carried out.

Personas were produced using information gathered in user surveys. The information from these personas impacted the creation of empathy maps. These helped understand underlying thoughts and emotions users could be experiencing in relation to driving. This allowed me to spot possible opportunities for Dash.

LEWIS
COOPER
35 YEARS OLD

DASH**.**

"I was advised by a friend that I should get a dash cam to record evidence if I am in an accident"

Lewis commutes a long distance for work each day and has to deal with a lot of drivers on the road. He doesn't have the time to argue with someone on his journey and a camera would clear up any details.

GOALS
- Wants to protect himself from other drivers causing accidents
- To not have to worry about manually starting recording if involved in an accident

PAIN POINTS
- Most dash cams aren't convienient to use due to untidy wiring and SD cards that aren't easily accessible
- Typically the interface isn't user friendly making it difficult to understand

CURRENT FEELINGS
Concerned, Impatient, Confident, Busy

NEEDS
- Simple to install solution that doesn't make fitting a difficulty
- An intuitive user interface that anyone can use regardless of their ability with technology
- Passive recording that uses impact and vibrations to start recordings

PERSONALITY
Protective, Money-conscious, Hardworking, Social

JENNIFER HIGGINS
20 YEARS OLD

DASH.

"I want to lower the cost of my insurance but the only way is to be on my parents insurance"

Currently studying at university and travels in each day for her course. She has been involved in an accident after one year of driving which has caused her insurance costs to increase. She is now on her parents insurance to try and reduce this cost.

GOALS
- Wants to be on her own insurance
- Would like to find a way to keep her premium to a minimum

NEEDS
- A passive solution that can always be 'on' and in the car when she is to ensure she doesn't forget to use it
- A simple way to track and monitor her driving and any accidents that may happen in case it is not her fault
- No hassle fitting a system to monitor driving or add dash cam functionality

PAIN POINTS
- Black boxes and dash cams can be frustrating to install
- Insurance costs are too much and has no simple way to keep them down

CURRENT FEELINGS
Anxious, Concerned, Worried, Hopeful

PERSONALITY
Outgoing, Shy, Hardworking, Optimistic

LEWIS COOPER
35 YEARS OLD

DASH.

"I was advised by a friend that I should get a dash cam to record evidence if I am in an accident"

Lewis commutes a long distance for work each day and has to deal with a lot of drivers on the road. He doesn't have the time to argue with someone on his journey and a camera would clear up any details.

GOALS
- Wants to protect himself from other drivers causing accidents
- To not have to worry about manually starting recording if involved in an accident

NEEDS
- Simple to install solution that doesn't make fitting a difficulty
- An intuitive user interface that anyone can use regardless of their ability with technology
- Passive recording that uses impact and vibrations to start recordings

PAIN POINTS
- Most dash cams aren't convienient to use due to untidy wiring and SD cards that aren't easily accessible
- Typically the interface isn't user friendly making it difficult to understand

CURRENT FEELINGS
Concerned, Impatient, Confident, Busy

PERSONALITY
Protective, Money-conscious, Hardworking, Social

Wanting to keep insurance low

Says
- I'd like to get use my parents insurance
- How will an app then improve my driving?
- Will an app then be able to track me properly?
- All these dash cams look so untidy with cables everywhere
- Will paying for an app save me money overall?
- What's available in my region to use?

Thinks
- I didn't think that accident would result an impact
- Will Higgins help reduce the cost of my insurance?
- What happens if I do something I shouldn't with a dash cam/black box?
- I'm not sure if I can afford my insurance if it stays this high
- Will I look weird having a dash cam in my car?
- Sometimes other in my family use the car, a black box would be annoying for them!

Does
- Looks at the cost of dash cam
- Uses online comparison tools for...

Want to prevent accidents and have evidence if needed

Says
- My friend advised me to purchase a dash cam
- The SD card can fill up quickly and is a hassle to be wiped
- I would hate my SD card to be full and to have an accident
- Having a dash cam could encourage people to drive more carefully
- The wiring for my dash cam always gets in the way when I'm driving
- I should check if having a cam affects my insurance

Thinks
- My current dash cam is confusing to use as I just do the basics with it?
- How could reviewing my driving benefit me?
- Is there any work in having a dash cam?
- I don't have time on my commute for the social/the said business
- Then A dash cam would prevent any arguments after an accident
- There are so many bad drivers out there on the roads

Does
- Shops around each year to get the...
- Puts other family members on his...
- Talks to friends and colleagues when looking into...

Feels
- Concerned
- Impatient
- Concerned

ENTICE

🏃 DOES

- Read in a magazine about a new Dashcam app that works on your mobile phone

- Reads into the features that Dash boats to customers

- Speaks to a colleague in work about how benfits of using a dashcam in his vehicle

💬 THINKS

- This app sounds really interesting, I wonder how it can help me?

- There seems to be a lot of benefits of having a dashcam in my car

⚠️ PAIN POINT

- The beneifts of using Dash over a traditional dashcam may not be clear to customers

💡 OPPORTUNITIES

- How might we effectively communicate the benefits of Dash over traditionl dashcams?

- How might we make a personal connection with customers showing how Dash can help them in their situation?

- How might we get people talking about Dash?

The user journey maps were created to show an ideal journey through Dash. They focused not only on the core engagement on the app, but also how to initially attract users (entice) and add retention value to keep them coming back (extend).

ENTER

🏃 DOES

- Goes onto the app store and searches for Dash

- Reads some of the top reviews for the app to see what people think about it

- Downloads Dash to his phone

- Goes through the onboarding process to create a new account

💬 THINKS

- The reviews seem to be very positive for this app so far

- The onboarding is useful but I think using the app will help me learn the most

⚠️ PAIN POINT

- Onboarding isn't very contextual for the customer, simply reading about sections doesn't help them remeber what to do

💡 OPPORTUNITIES

- How might we provide a delightful onboarding experience to customers to give them the best inital impresion of Dash?

- How might we help give context to section explanations during the onboarding process?

ENGAGE

🏃 DOES

- Reads through the information on the home screen and follows the prompt to update profile preferences

- Completes his profile and adjusts preferences to his stats and driving review

- Uses Dash for a week of communting to and from work

💬 THINKS

- This homescreen is really useful for finding out new information or where things are in the app

- I like that I can set my own preferences

⚠️ PAIN POINT

- Homepage could be distracting from the rest of the app. Users are not sure how to navigate back to it

💡 OPPORTUNITIES

- How might we clearly provide customers with useful information on the homescreen without causing confusion?

- How might we make it clear to users that preferencces are easily changed to suit their needs?

- How might we provide a useful navigation that empowers customers?

EXIT

🏃 DOES

- Visits the driving review sectiton after his week to see how it works

- Learns more about his driving technique and wayshe could drive in a more economical manner

💬 THINKS

- I wonder how Dash reviews my driving and make srecommendations?

- This could be useful at times but I'm not sure how much I'll check it

⚠️ PAIN POINT

- Customers may not regularly check the driving review feature or know how to use it to improve their driving

💡 OPPORTUNITIES

- How might we educate users on how Dash monitors and reviews their driving?

- How might we provide useful tips to users based on their driving review that do not seem condescending?

- How might we encourage customers to check their driving review regularly?

EXTEND

🏃 DOES

- Checks his driving stats from the last week to see what it tracks

- Decides to keep using Dash when he is communting each week to work

- Tracks how his driving improves over time using the review section

- Occasionally checks his driving stats

💬 THINKS

- This is a useful app to have when I'm communting, I don't have time to wait on Policeif I was in an accident!

- How accurate actually are my stats?

⚠️ PAIN POINT

- Everyday drivers may not be so interested in their stats as much as other drivers

💡 OPPORTUNITIES

- How might we present stats in an interesting way that encourages customers to have an interest in them?

- How might we personlise each customers stats to areas that are of genuine interest?

- How might we educate customers about the accuracy and relevancy of their stats?

STRENGTHS & WEAKNESSES .

I believe one of my strengths in understanding what user-centred design is and techniques to implement it.

From studying Interaction Design to having experience working as a User Experience Designer at a fast-paced agency, I have gained a solid understanding of my field and industry. I have undertaken user-centred research and design activities across the product life-cycle from discovery such as persona development to usability testing with real customers.

Learning new activities and ways of conducting them has greatly improved my ability to gather data. Furthermore, knowing how to synthesise this data effectively has increased the value I can takeaway, thus increasing my user-centred decision making. Alongside these user research skills I have also become more aware and knowledgable of accessibility and usability standards.

This understanding and experience has played a huge factor in my project. It has meant any decisions made are underpinned by research and standards allowing me to have confidence in Dash's function and design.

One of my weaknesses that has improved greatly over the course of this project is my user interface (UI) design skills. In previous projects I did not have a strong ability to make UI's look 'real'. They always felt like a design rather than a screenshot of a product. Many of the interfaces I created were hard to use, sizes were too small and colours could be hard to make out.

To help improve my skills, I spoke to and observed other more experienced designers around me at work. This helped me understand techniques for creating delightful interfaces. I gained insight into making colours accessible, ensuring sizing met usability standards, and copy was considered yet clear.

TECHNOLOGIES USED .

Over the last couple of years my workflow on projects has adapted, partly due to having access to different tools but also from experience working full-time on placement. This has led to the use of different technologies throughout this project, each with a specific role.

Paper → Illustrator → Sketch → (Craft) → InVision

When creating initial wireframes and sketches I started with very cheap technology - mainly Sharpies, Tombows, Pilots and Post-Its. Each brings with it a specific use. Sharpies and Post-It Notes helped gather thoughts and ideas quickly. Different colours helped organise ideas into various themes. Pilots brought early wireframes to life showing a basic layout, with a Tombow adding a sense of depth and pulling out key calls to action.
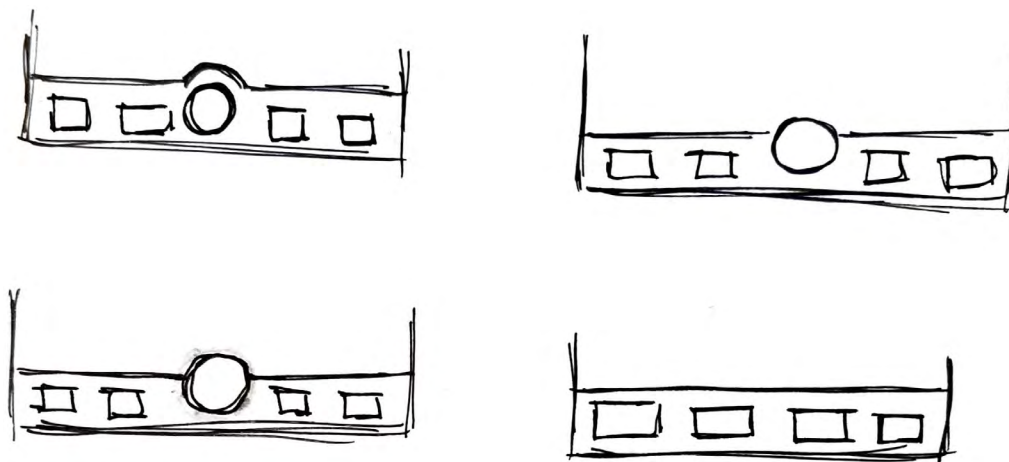

Paper
Sketches for the main menubar that would be used by Dash

These initial sketches became digital low-fidelity wireframes. Icons were created in Adobe Illustrator where they moved through a series of iterations to discover a style that suited Dash.

I used Sketch App to bring together all my assets, both gathered and created, in order to create the high-fidelity Dash UI. Sketch provided a way to easily create a component library. This allowed me to quickly put together designs that were aesthetically delightful yet also consistent. This library mainly consisted of form fields, buttons, and text styles.
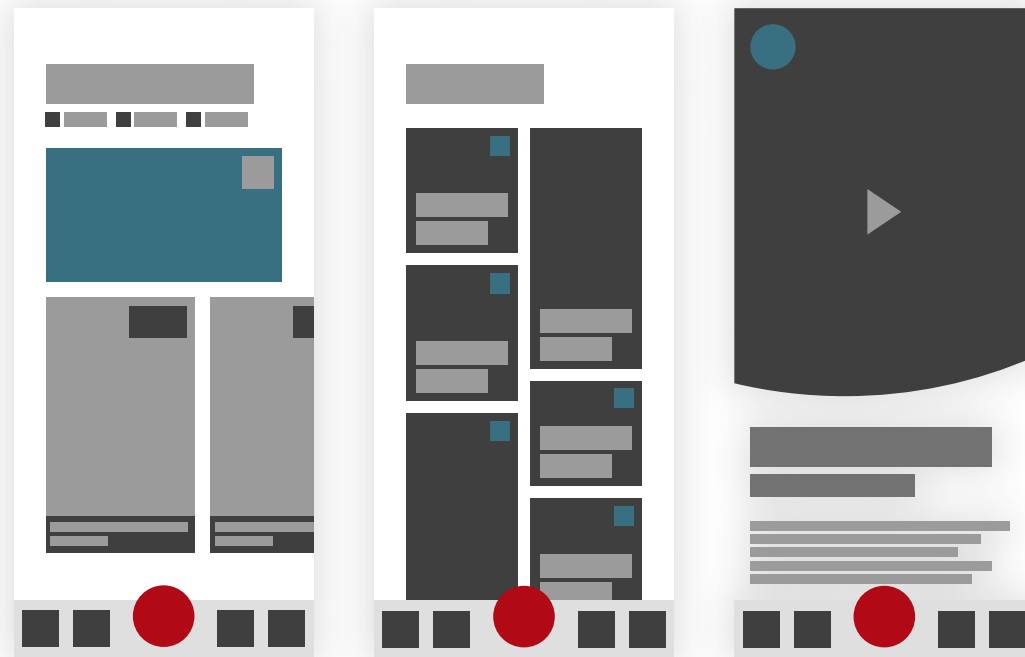

Illustrator
Initial blockframes were created to display the layout of each screen

Once each screen had been created,
the Craft plugin pushed them to an
InVision prototype. This was where
the app came together and could be
viewed as a clickable prototype.

By using InVision to add hotspots,
it gave me an opportunity to
walkthrough Dash and get more of
a feel for how it works. This part of
the process helped me to see where
improvements had to be made to the
experience and usability.
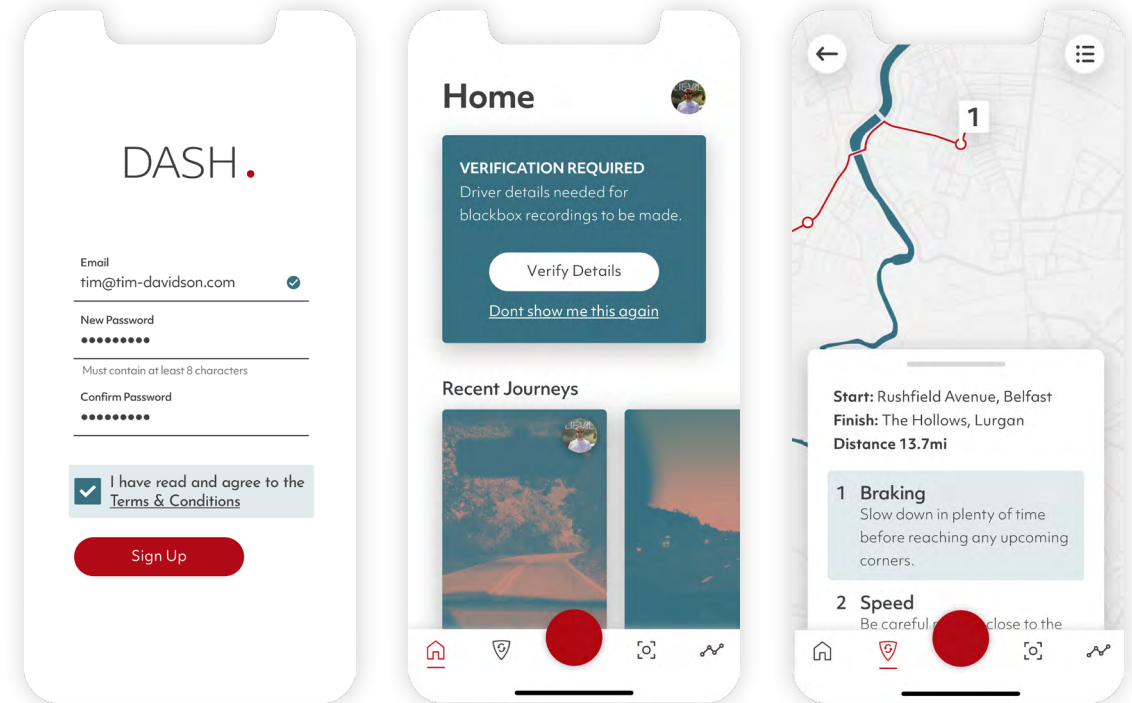
Sketch
High-fidelity screens were brought
together using all the created assets

CHALLENGES FACED .

Whilst working on Dash I came across a few challenges, none of which couldn't be overcome during the course of the project.

Usability
I had designed a number of components for the app such as form fields, buttons, and text styles. After testing these out on a device I discovered they weren't usable. I did some further research and testing before adapting my components to meet usability standards.

Data Collection
Whilst doing my initial user research via surveys was a passive and easy way to gather data, I received a very weak response to begin with. This did not provide me with enough input needed to glean valuable insights. I got some advice from others and pushed the links into other, more specific, digital channels. This raised the number of responses I received for the surveys.

CONCLUSION .

CONCLUSION .

Dash has allowed me to bring
together all the skills and experience
gained whilst working full-time on
placement. It has encouraged me to
improve on areas that were lacking.
The project has been great to work
on, giving me an opportunity to bring
an idea to life.

Dash is now a high-fidelity prototype
that could be used for funding
applications to develop it into a
working MVP for consumers.