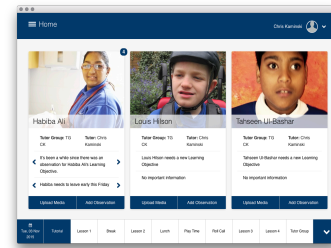


Chris Kaminski
designer setmajer.com
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Contents

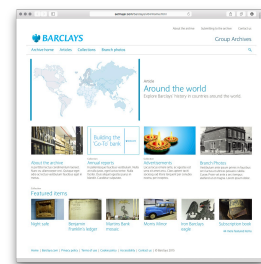
Prompting
Fluency
Maintenance
Generalisation



Beatrice Tate School ARR System

I lead a team of three using contextual inquiry, personas, and task flows to design a responsive web-based system for recording and reporting the progress of students with profound and multiple learning disabilities.

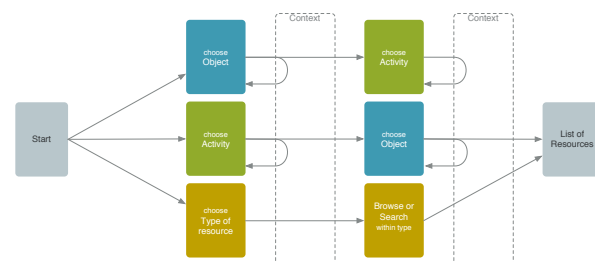
3



Barclays Group Archives Website

Using competitive analysis, qualitative research, personas, user journeys, prototyping, and user testing I designed and performed fit-and-finish testing on a responsive website that delighted diverse users and reduced the archivist's workload.

7



Deutsche Bank IT Support Portal

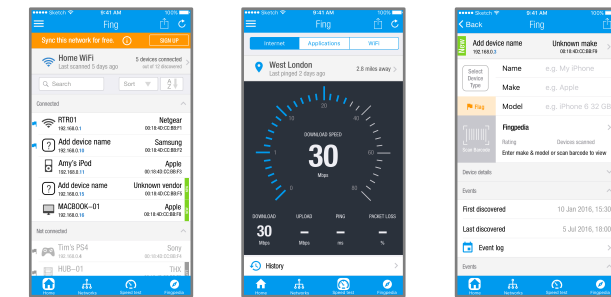
I used a content review, analytics, user surveys, and stakeholder workshops to design a navigation concept to unify 50 disparate internal websites into a single coherent and intuitive support website.

11

Fing Home Networking App

I lead a team of three conducting user interviews and testing, heuristics and analytics reviews and competitor analysis to redesign and devise a monetisation strategy for an iOS and Android app with 6 million active users.

5



Linux Foundation Build Management Tool

Working closely with the internal UX designer and project developers, I designed, prototyped, and user-tested a web-based UI for an open-source Linux build management system with a diverse global user base.

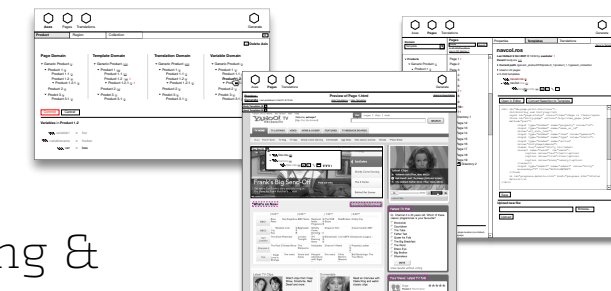
9



Yahoo! Templating & Translation System

As the UI lead of a distributed development team at Yahoo! I used contextual enquiry and guerrilla user testing to design a UI to enable code reuse and streamline debugging on high-traffic media websites.

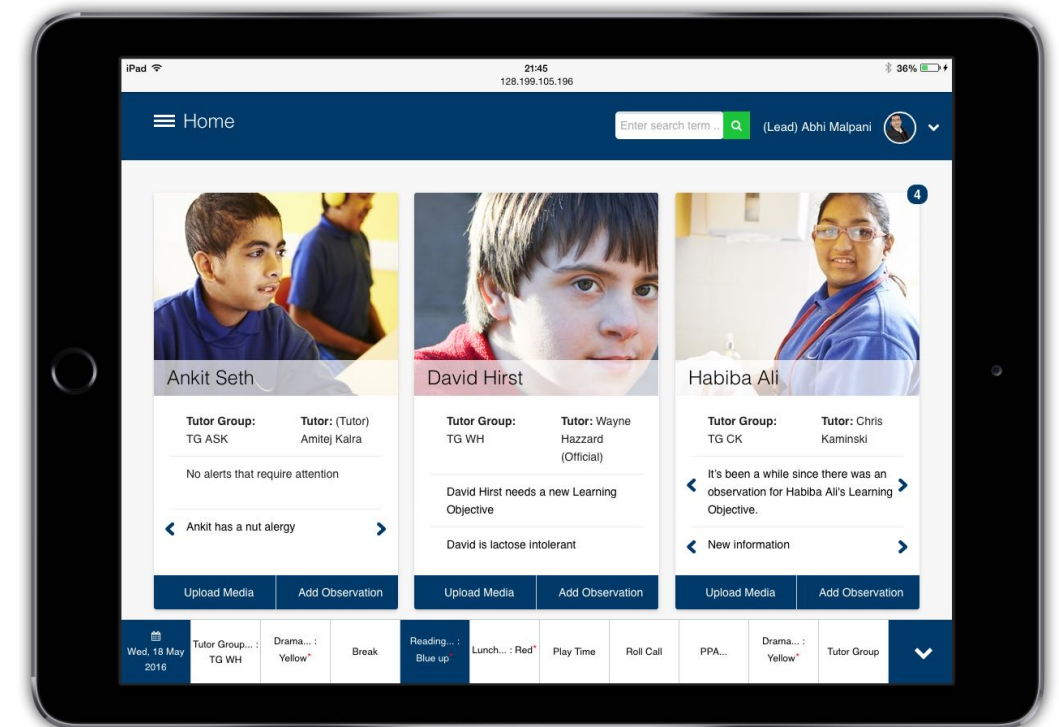
13



Beatrice Tate School ARR System

Beatrice Tate, a school for children with profound and multiple learning disabilities, required a system to help track students' progress and create end-of-term reports. After struggling to use off-the-shelf systems, the school asked us to design a system that would suit the school's specialised curriculum and the students' non-linear progress while meeting both a limited budget and an aggressive schedule dictated by the school calendar.

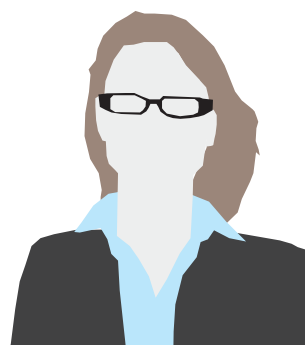
I scoped and planned the project, led a team consisting of one senior designer and two interns. I performed contextual inquiry interviews to understand how student progress was currently recorded and tracked, then mapped user motivations to goals and tasks using personas. I then created task flows mapping out key user activities in detail. At the end of the project, I wrote the technical requirements and provided development support and QA for the Bangalore-based development team.



ARR home screen during QA

Persona

Teacher



High Priority Role

Mainly uses the system for:
Recording student progress

Also uses it for:
Monitoring & tracking student progress
Reporting on student progress

Usage level:
Very high

Motivations

- Ensure students are given support and instruction appropriate to their needs
- Understand students' progress over time
- Assist students who are having difficulty meeting their goals
- Keep colleagues and parents/caregivers informed of students' progress
- Celebrate students' achievements
- Minimise time spent on administrative work
- Meet legal obligations

Goals

- Identify personalised areas of focus for each student in each class
- Track students' progress toward LOs and subject areas
- Identify students who could be making more progress
- Identify new teaching methods to help students meet their goals
- Communicate progress to tutors, relevant professionals, and parents/carers

Tasks

- **View a student's past progress toward a LO**
- Select LOs for focus
- **Record observation and/or evidence**
- See students not making expected progress on a LO
- **Check progress & observations on other students with a given LO**
- Create Subject Achievement Summary
- Submit Subject Achievement Summary to tutor

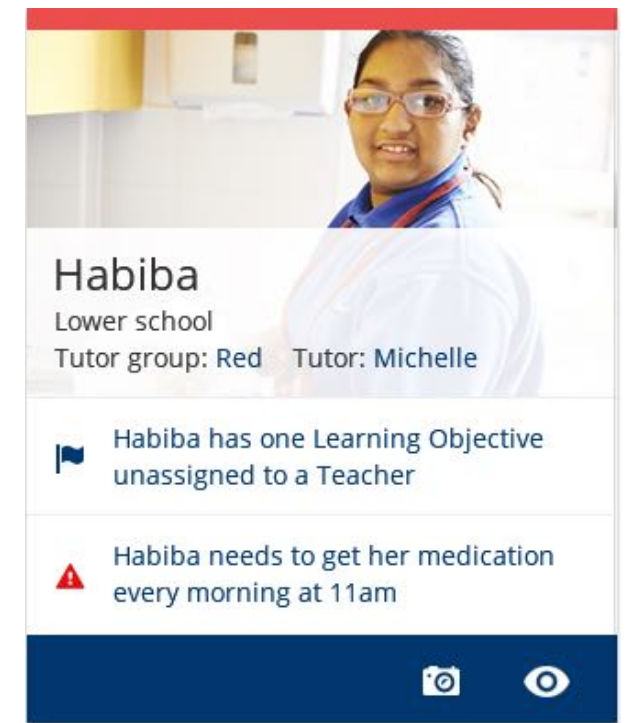
Key tasks are in **bold**

My research revealed faculty members have two roles: as a teacher they record observations on students' progress, while as a tutor they track progress and assemble observations into end-of-term reports. We designed a responsive web-based system that makes recording observations easy, while still offering flexible reporting. Timeline-based navigation presents teachers with the correct students for the class they are currently teaching, and student 'cards' with large photos help teachers to quickly record observations using the built-in camera on their tablet. A multi-axis progress tracker helps teachers and tutors track student progress, and a drag-and-drop interface allows teachers to assemble these observations into bespoke reports for parents, caregivers, and social workers.

The teachers were delighted with the system when it rolled out on schedule in the fall. The observation recording features helped them record better feedback on the students, and the scheduling and reporting features provided substantial time savings over their previous system.

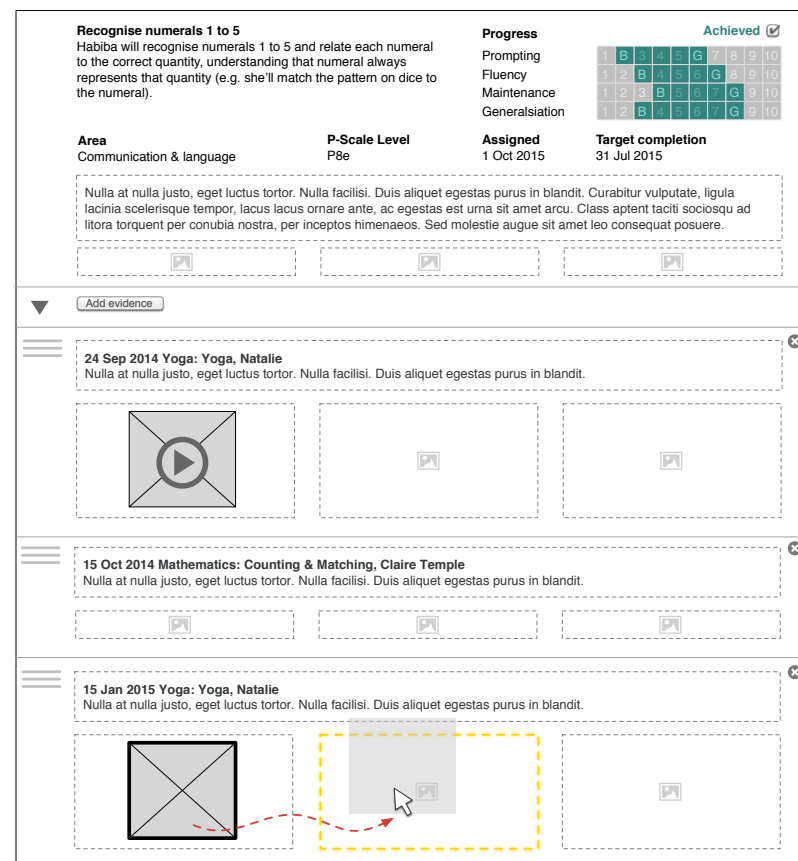
'This has been a productive, enjoyable process. It has helped us to reflect on what we really needed and you have questioned and challenged in a positive way. You have also enhanced our early ambitions through your design process.'

— Mick Whaley, Deputy Head Teacher, Beatrice Tate School



Student card

Drag & drop reporting



Navigation timeline



Progress tracker

- Prompting
- Fluency
- Maintenance
- Generalisation



'Just back after ½ term break. We are really pleased with the system... At some point we may scope out a shopping list and get a quote for ARR version 2!'

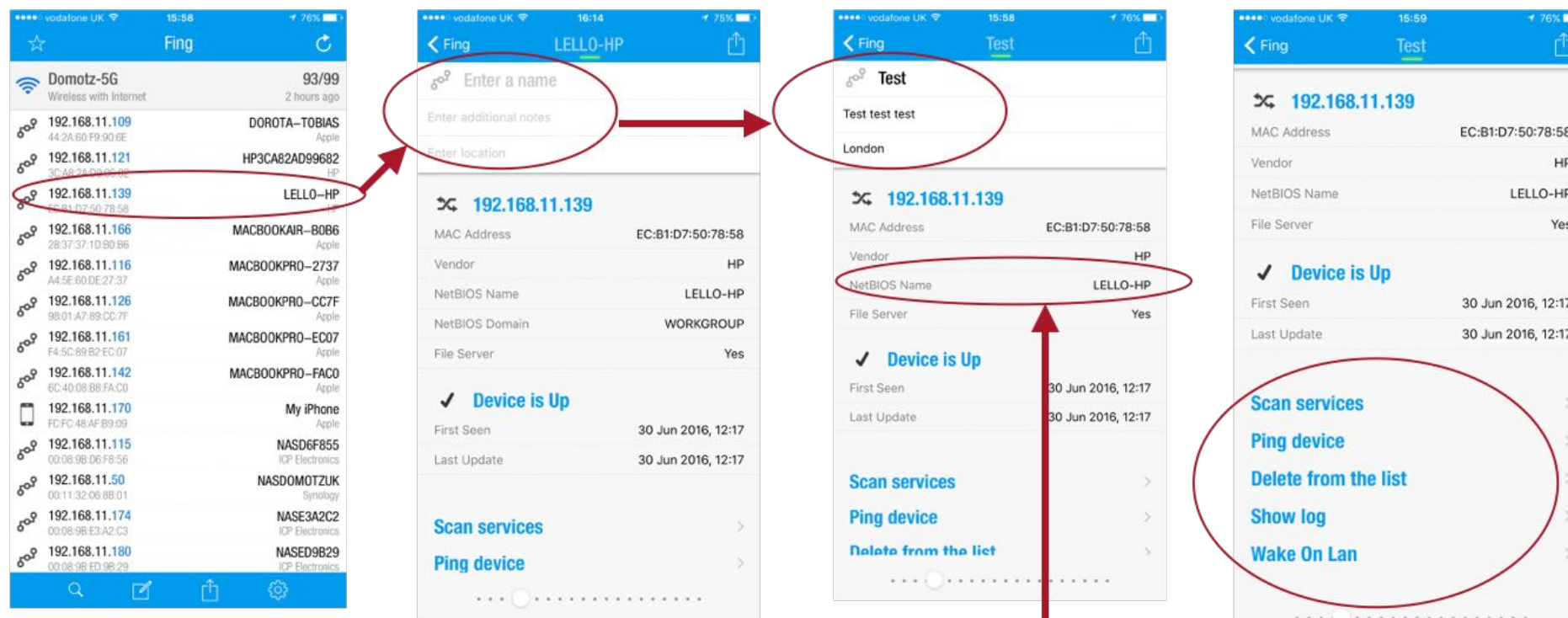
— Mick Whaley, Deputy Head Teacher, Beatrice Tate School

Fing Home Networking App

Domotz is a startup that develops home networking tools for big box retailers and professional installers. Fing is the top-rated network scanning app in the iOS and Android app stores. 6 million people use Fing to perform over 600,000 scans per day. Domotz acquired Fing to expand into the consumer space, then hired my team to redesign the UI and help devise a monetisation strategy that wouldn't alienate its existing users.

I planned the 6-week project and lead a core team of a UX designer, a researcher, a project manager, and one in-house UI designer. We started with a stakeholder workshop, competitor analysis, remote user interviews, a heuristic review of the app, and analysis of user reviews and a marketing survey to better understand Fing and its users. The team then designed in quick iterations, reviewing progress with Domotz's founder daily and with engineers as-needed. We held formal reviews each week, and conducted two rounds of user testing before proceeding to detailed UI design.

Heuristic review



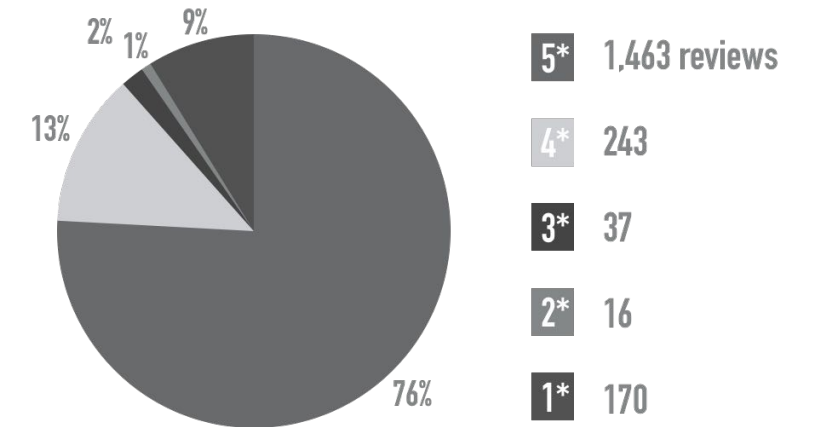
Not intuitively clear that you can click on each device/ IP address to access further features.

Ability to change the name of the device, to add notes and location.

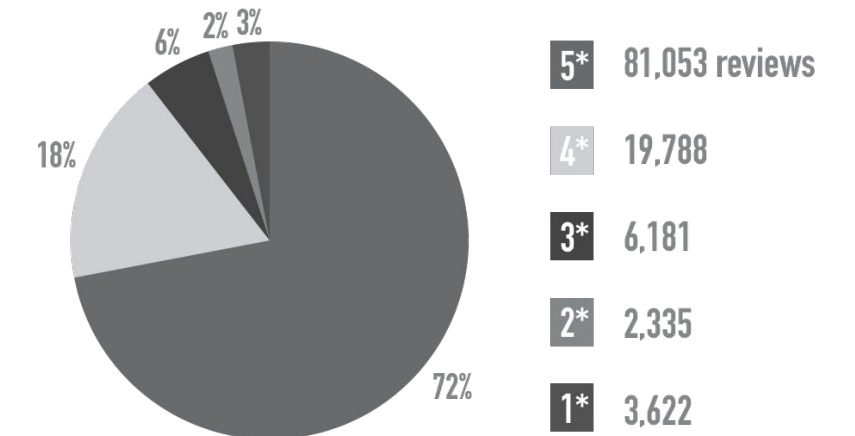
What if the vendor name is incorrect? Is it possible to edit it?

Technical jargon prevents user engagement with the product

App Store — 1,929 reviews



Google Play — 112,980 reviews

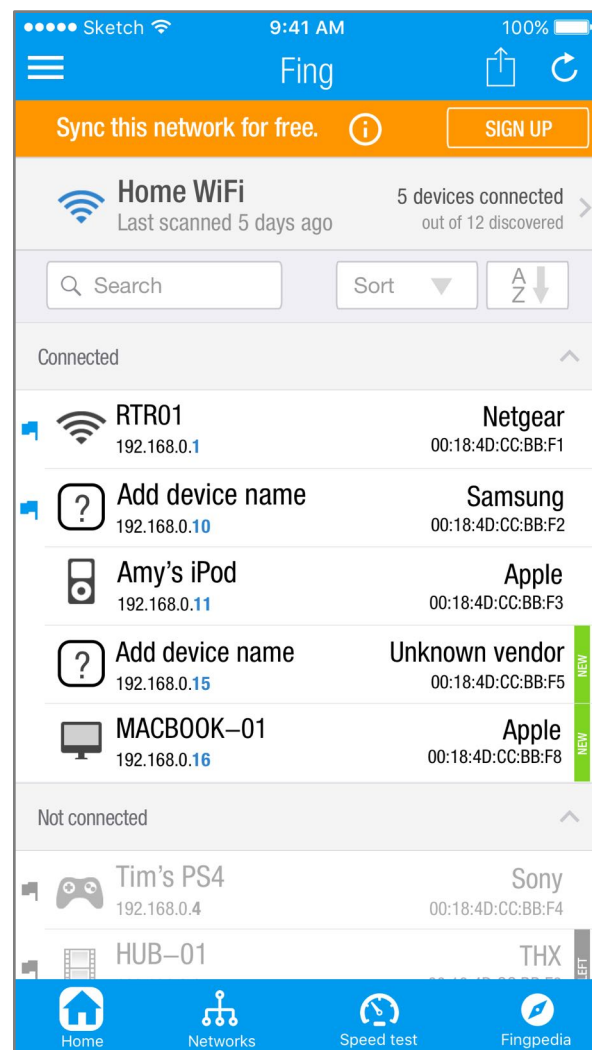


User reviews breakdown

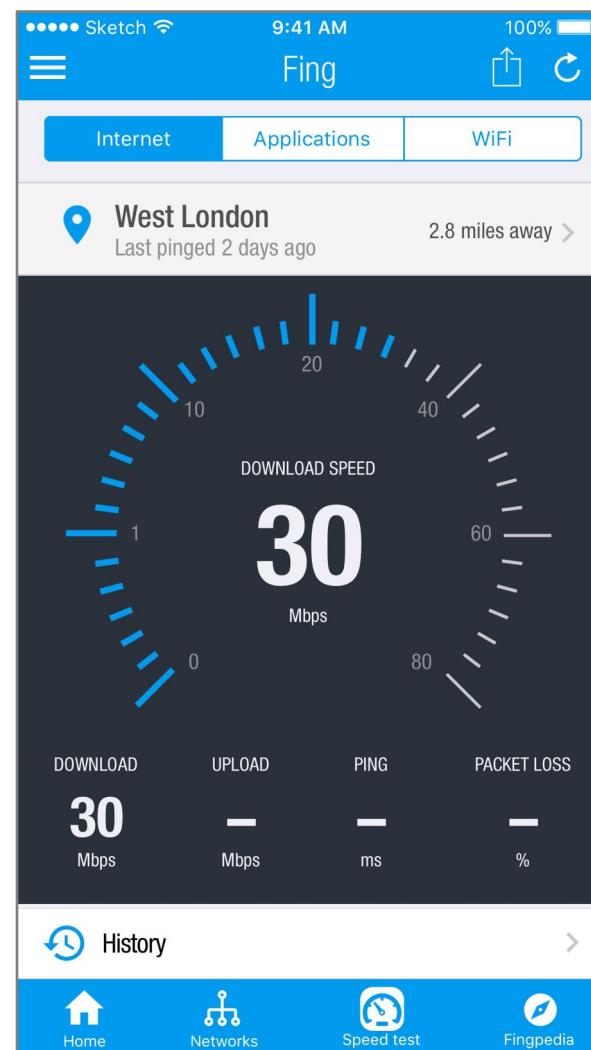
Fing Home Networking App

Research revealed Fing users often helped manage networks for friends and family, so we added the ability to save networks they scanned. Many were also gamers, so we enabled them to check the speed to a selected server, such as a gaming service. These features encouraged users to sign up for a free cloud account — a first step in converting free users to paid subscribers. To help build Domotz's trove of user and device data, we added a barcode scanner to ease adding devices to the app. Once added, users could view device information and add and read device reviews.

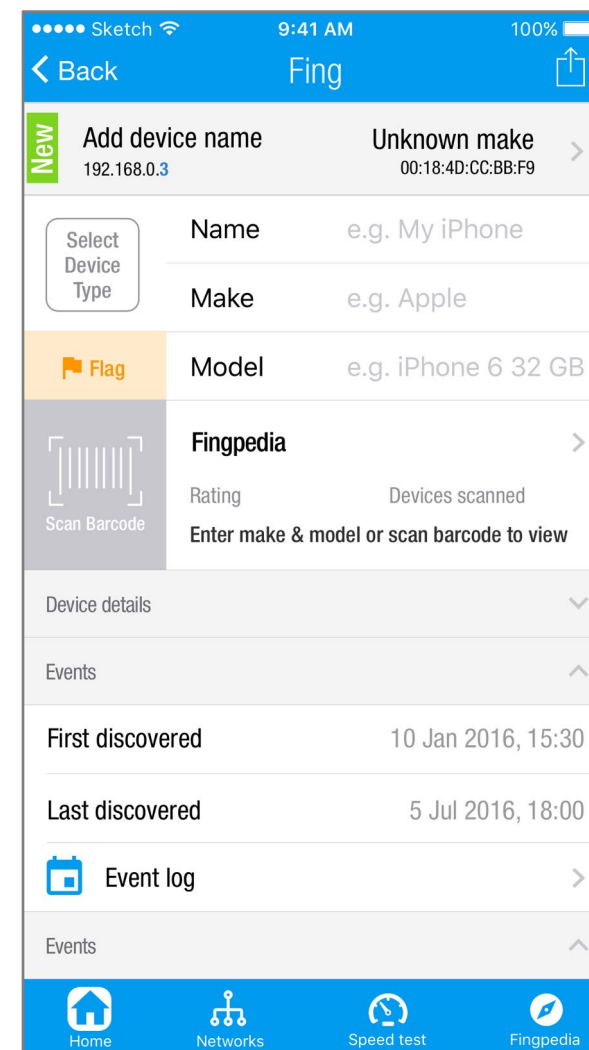
Domotz's founder was thrilled with the new design, and with our incremental plan for converting free users to paid subscribers and building their consumer intelligence database. He was also complementary of our team and the way our process challenged and sharpened his thinking.



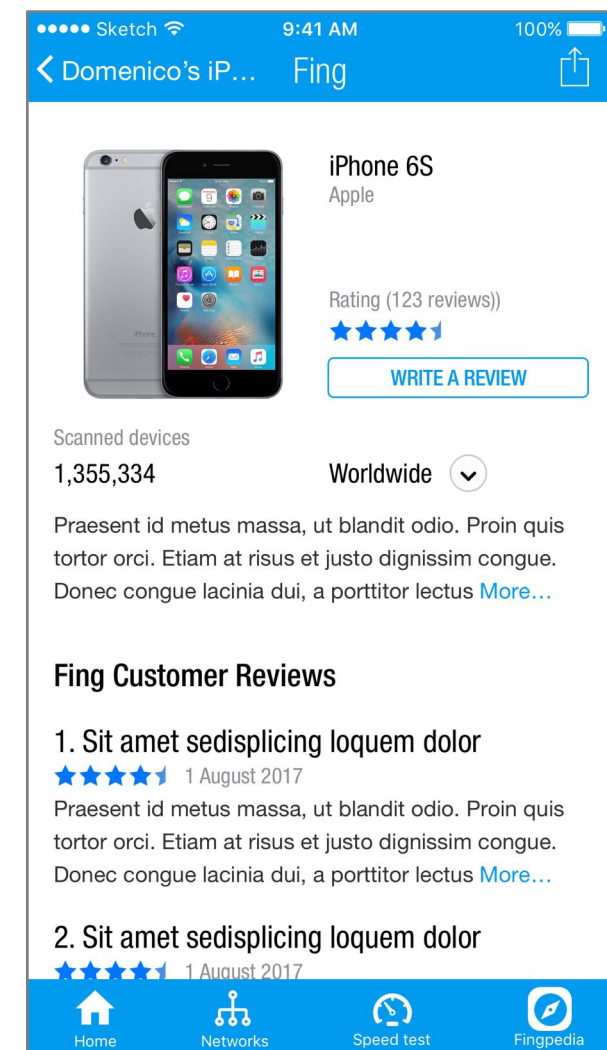
Dashboard



Speed test



Device details

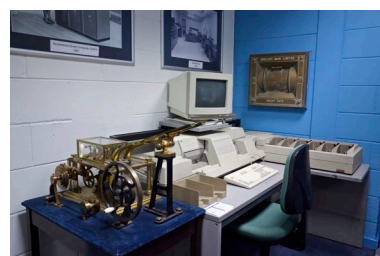


Device information & reviews

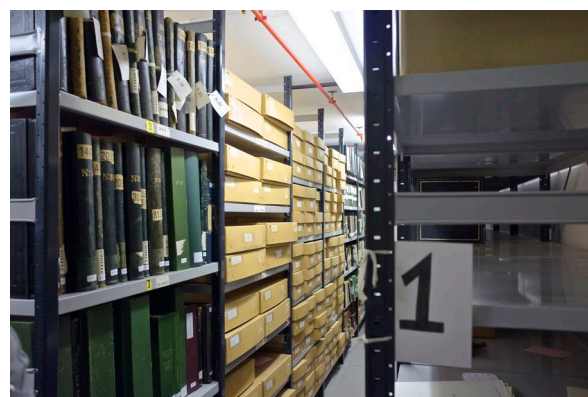
Barclays Group Archives Website

Barclays Group Archives is a collection of records, artefacts, and memorabilia from the bank's 325-year history. It provides institutional memory, preserves Barclays' corporate culture, and is a valuable reference for scholars, amateur historians, and the media. I was asked to design a website that would ease the archivists' workload by allowing users to find oft-requested materials on their own, provide a platform for communications initiatives, and demonstrate Barclays' commitment to their values of service and stewardship.

During the 11 week project I worked with diverse Barclays stakeholders, consultants from financial technology firm Capco, digitisation experts UK Archiving, and visual designers and developers from Tobias & Tobias. I began with a competitive analysis of existing archive websites to frame the problem. Joint research with the developer identified the open source Omeka system as our technology platform. Remote user interviews and contextual enquiry with the archivists yielded personas and user journeys which informed the content model and concept design. I then built and user-tested a clickable prototype, after which development and visual design ran in parallel with detailed interaction design in a scrum-based agile process. I also wrote and maintained the product backlog and UAT scripts, and tested the site on a variety of devices, browsers, and operating systems.



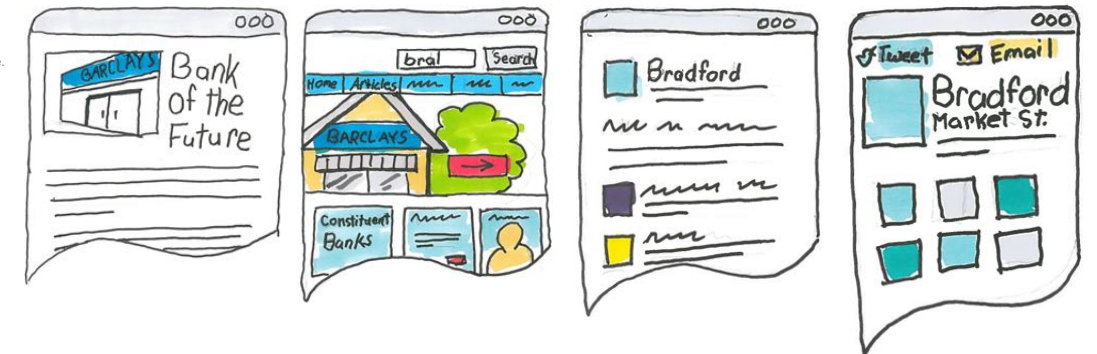
Inside the archives



User journey

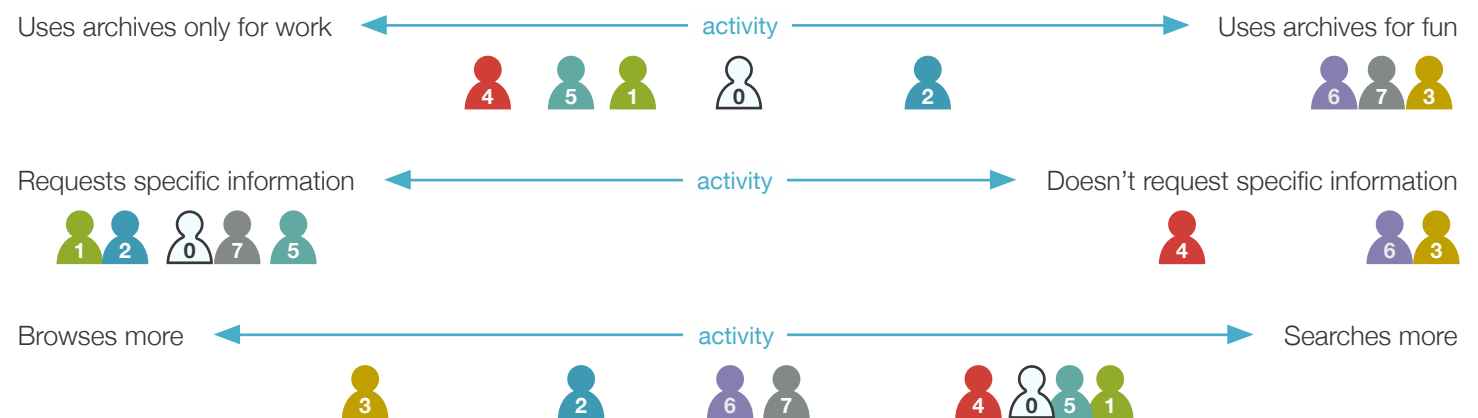
1. Search for branch photos

Jade Cooke
 Motivation: generate positive press coverage.
 Goal: tweet historical photos of Barclays' Bradford Market Street branch.



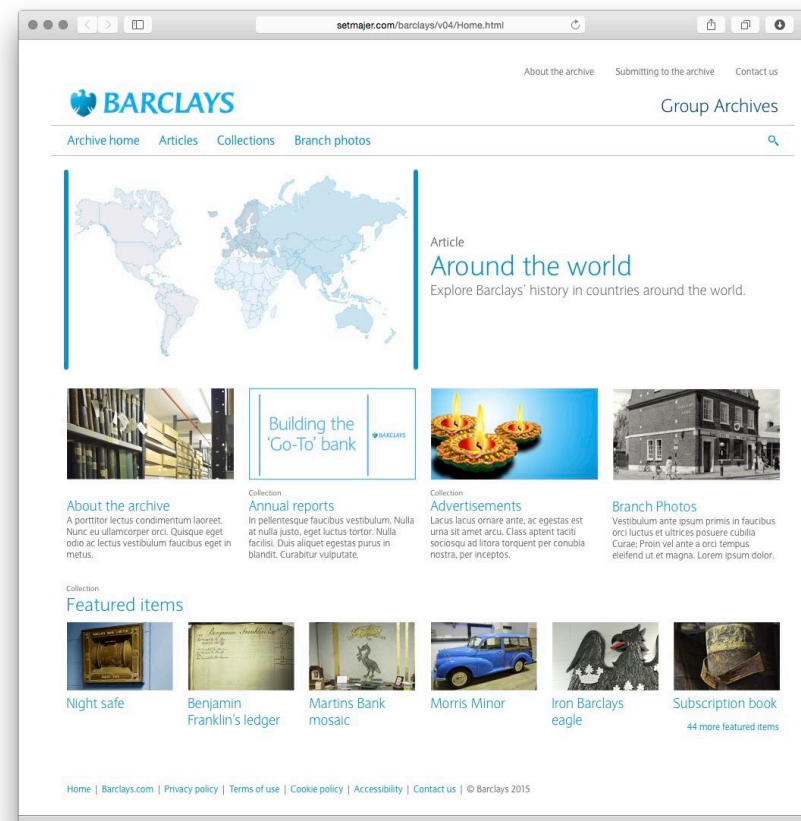
1. The Barclays branch in Bradford's city centre has just been remodelled into a counter-less format, and Jade wants to trumpet the news on Twitter. She decides to do so by linking to the press release, which includes a photo of the remodelled branch, and to photos of what the branch used to look like.
2. She opens her browser and goes to the Barclays archive site and searches for 'bradford'.
3. The top result is a page for the Bradford branch on Market Street. She selects that result.
4. She lands on a page for the Bradford branch which includes the date it opened and a series of photos of the branch through time. She clicks the 'tweet' link.

User distributions



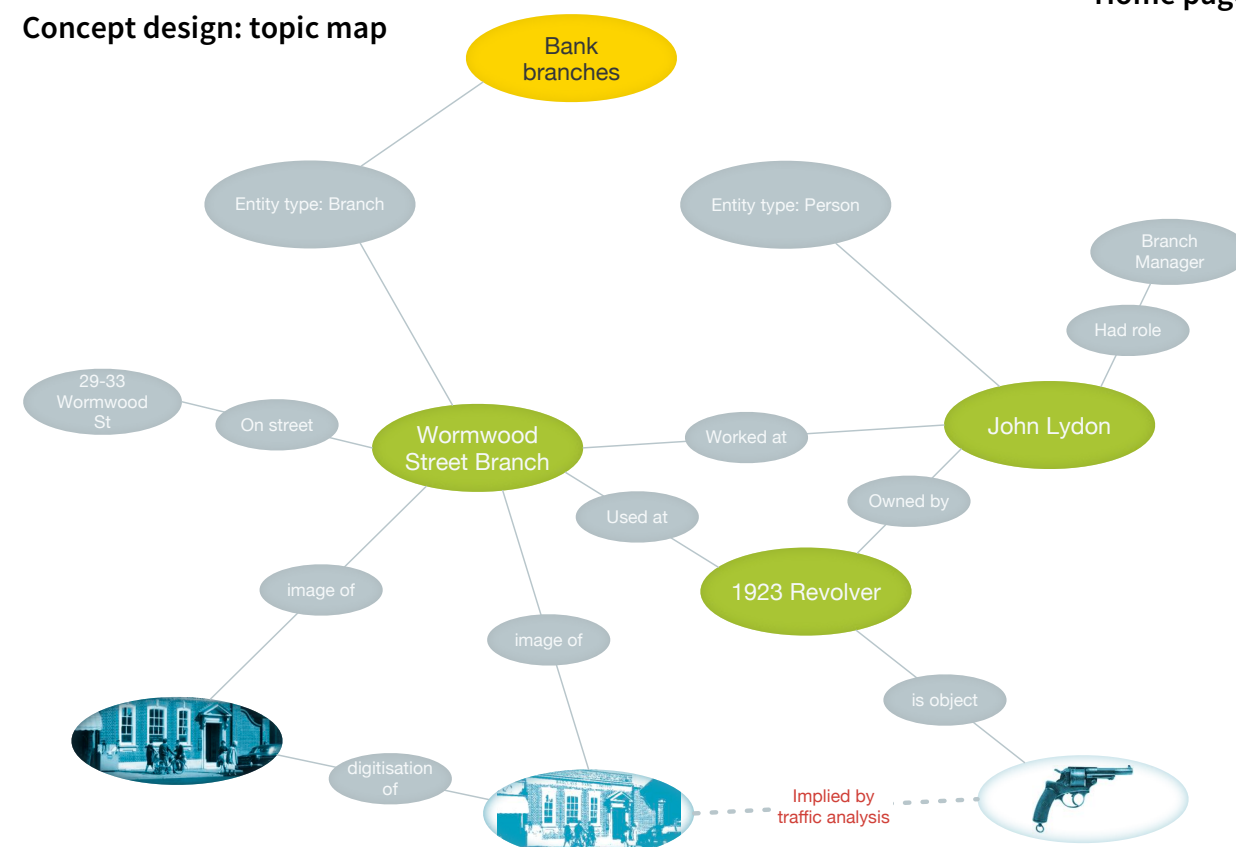
The research showed user roles varied by their need for context around archive items: Browsers want to know how an item connects to Barclays and the world to understand its significance, while Researchers use context to find specific artefacts, but want to evaluate an item's historical significance for themselves.

The final design was based on a topic map linking artefacts, their digital representations, descriptions, and each other through shared metadata. The design enabled us to create galleries of frequently-requested items so researchers can find them quickly. The system also creates links between items with shared metadata values to provide context and additional items of interest to browsers. As new items are added, the system creates new links based on the items' metadata, reducing the workload for the archivists. A set of key metrics will measure the success of the site and guide future development.



Home page prototype

Concept design: topic map

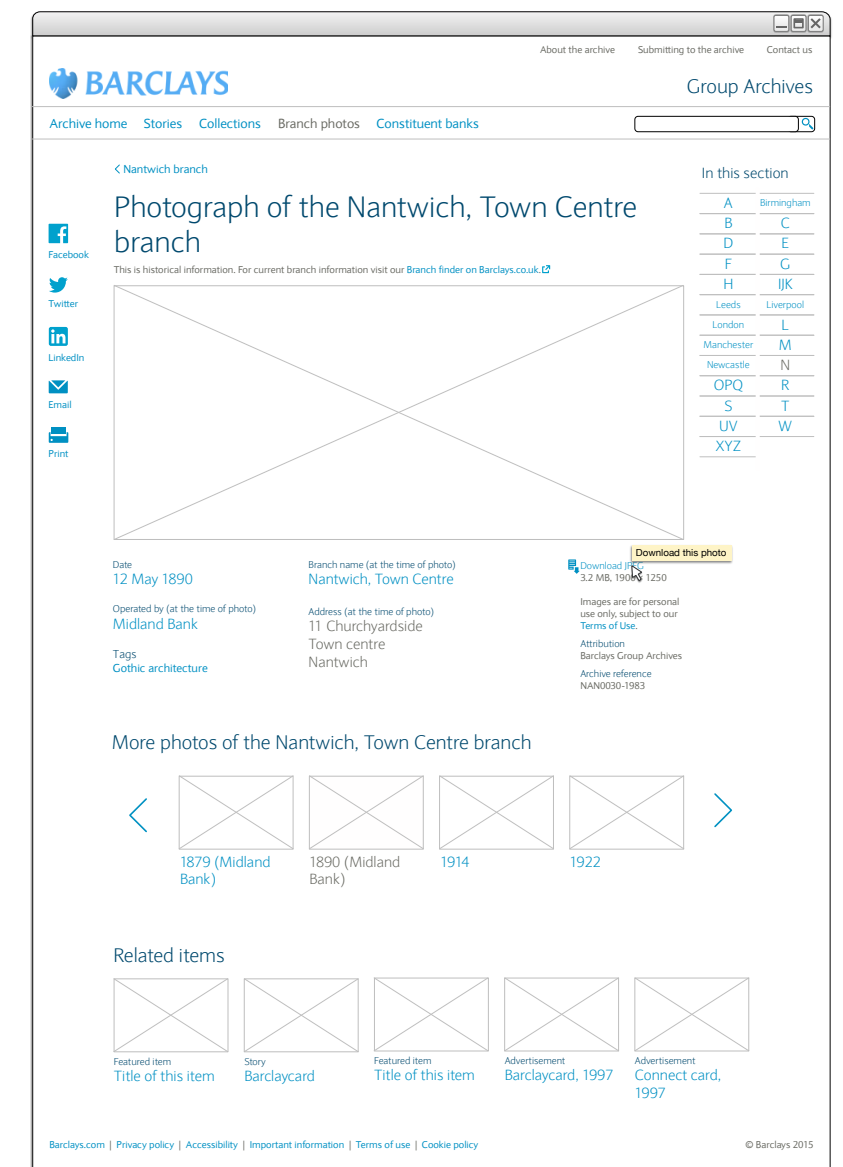


'What a brilliant site you have! I have been having a quick browse and really like the immediacy of it, the design and the ease of use.'

— Melanie Aspey, Director, The Rothschild Archive

'Just had a look at the new Barclays archive online resource, it's brilliant — really easy to use, interesting and visually beautiful. There's obviously some serious planning and research behind it, so many congratulations to all involved, I hope it's a roaring success.'

— Kelda Roe, Collections Access Officer (Rugby League) at University of Huddersfield



Item page wireframe

'This looks brilliant! It's great to see such a useful online resource and I hope it will help to reduce the pressure on your team.'

— Barclays colleague

'I will certainly be able to make good use of the information now online whilst continuing to research the Barclays Constituent Banks'

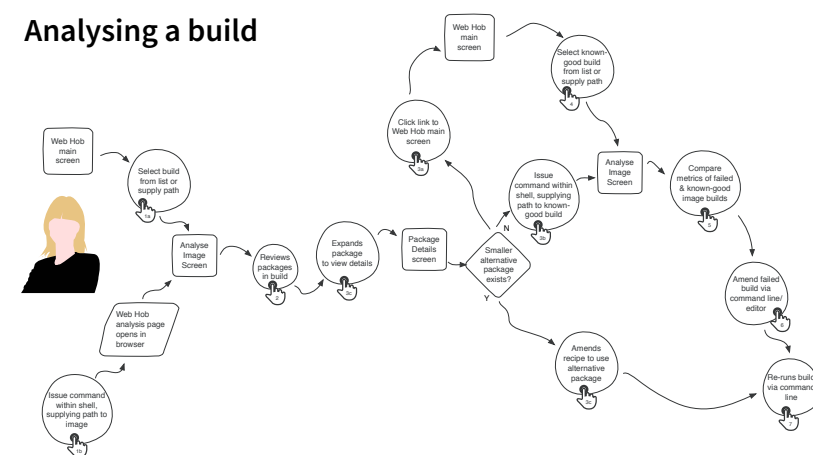
— Barclays colleague

Linux Foundation Build Management Tool

The Yocto Project is an open source tool for creating customised Linux-based operating systems for mobile and embedded devices. Intel, the project's sponsor, wanted to broaden the project's appeal without alienating the existing community of command line-centric developers. They hired me to design a GUI which would help users of varying levels of technical ability manage the complexity of customising Linux builds.

Working with the in-house UX lead, I began each iteration with a deep-dive workshop with the Yocto technical leads. I then created detailed task flows to help us understand the process of customising a Linux build. Next, we built a clickable prototype, remotely tested it with users around the world, and presented our findings and video highlights to the leadership team. To keep project contributors involved, we used a community mailing list for discussions and posted designs and test results to the project wiki.

Analysing a build



Web Hub dashboard

Failed build
 Error message
 In-progress build
 Successful build
 Click a build name to view the build dashboard.

Click an error or warning indicator to view the error or warning page

Build dashboard

Build configuration

Customisable modules

To win over skeptical developers, we initially focused on analysis tools which were awkward or nonexistent on the command line. These included a tree map to help developers see which packages are eating up precious storage space, a sunburst diagram to help them visualise the structure and location of files within their disk image, and a network map to reveal package dependencies.

The user test revealed a diverse group which varied in their tasks, work environment and experience. While they often disagreed about which tools were most useful they all found at least one tool that got them excited. On seeing the dependency tracker, one particularly sceptical user exclaimed, 'Oh, now that would be useful!'

Package size

Alternative visualisations

Summary

Package name	Recipe	Size	% of total
base-files	base-files-3.0.14-r72	244.0 KB	3.2
base-passwd	base-passwd-3.5.26-r0	0 B	0
busybox	busybox-1.20.2-r2	568.0 KB	0.9
busybox-hwclock	busybox-1.20.2-r2	16.0 KB	0.003
busybox-syslog	busybox-1.20.2-r2	20.0 KB	0.00032
busybox-udhcp	busybox-1.20.2-r2	32.0 KB	0.006
eglibc	eglibc-2.16-r15+synr20393	3.0 MB	50
initscripts	initscripts-1.0-r137	160.0 KB	10
kernel-base	linux-yocto-3.4.11+git1+a201_0d9fa	0 KB	0

Build analysis tools

The tree map shows the relative sizes of packages in the build.

Package names are linked to a detail screen which includes a description and file listing.

Recipes names link to a page showing the tasks performed by that recipe.

Dependencies

Dependencies

Package name	Depends on
base-files	
base-passwd	
busybox	• update-rc.d • eglibc
busybox-hwclock	
busybox-syslog	• update-alternatives-cworth
busybox-udhcp	
eglibc	
initscripts	• update-alternatives-cworth
kernel-base	
kernel-module-ctbcovarea	• kernel-3.4.24-yocto-standard • update-modules
kernel-module-cfbfillrect	• kernel-3.4.24-yocto-standard • update-modules
kernel-module-cfbimebit	• kernel-3.4.24-yocto-standard • update-modules

Network map showing required and recommended packages

Package names are linked to detailed package pages with information on contents and function.

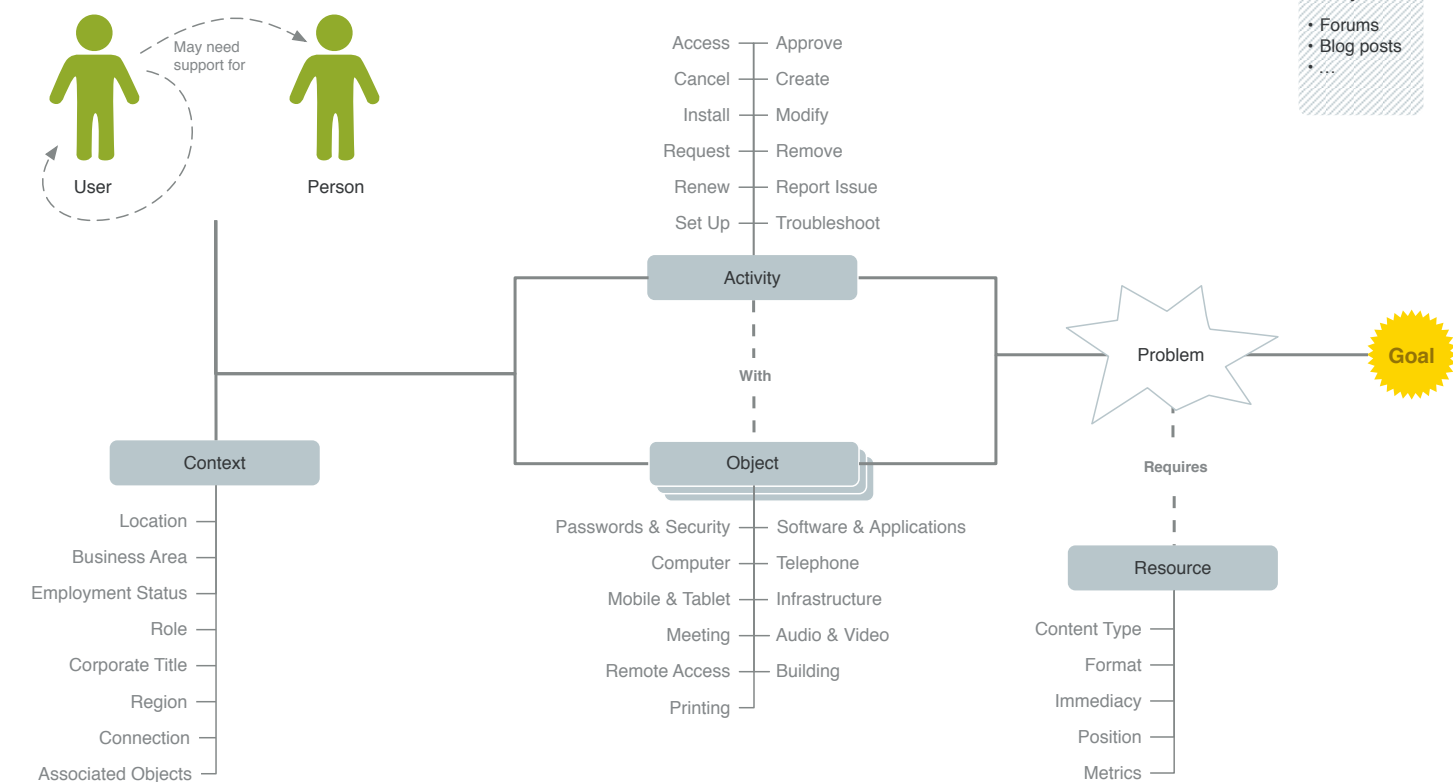
Power ↔ **Simplicity**
 Builders ↔ Optimisers
 Soloists ↔ Big bands
 Greybeards ↔ Beginners

Deutsche Bank IT Support Portal

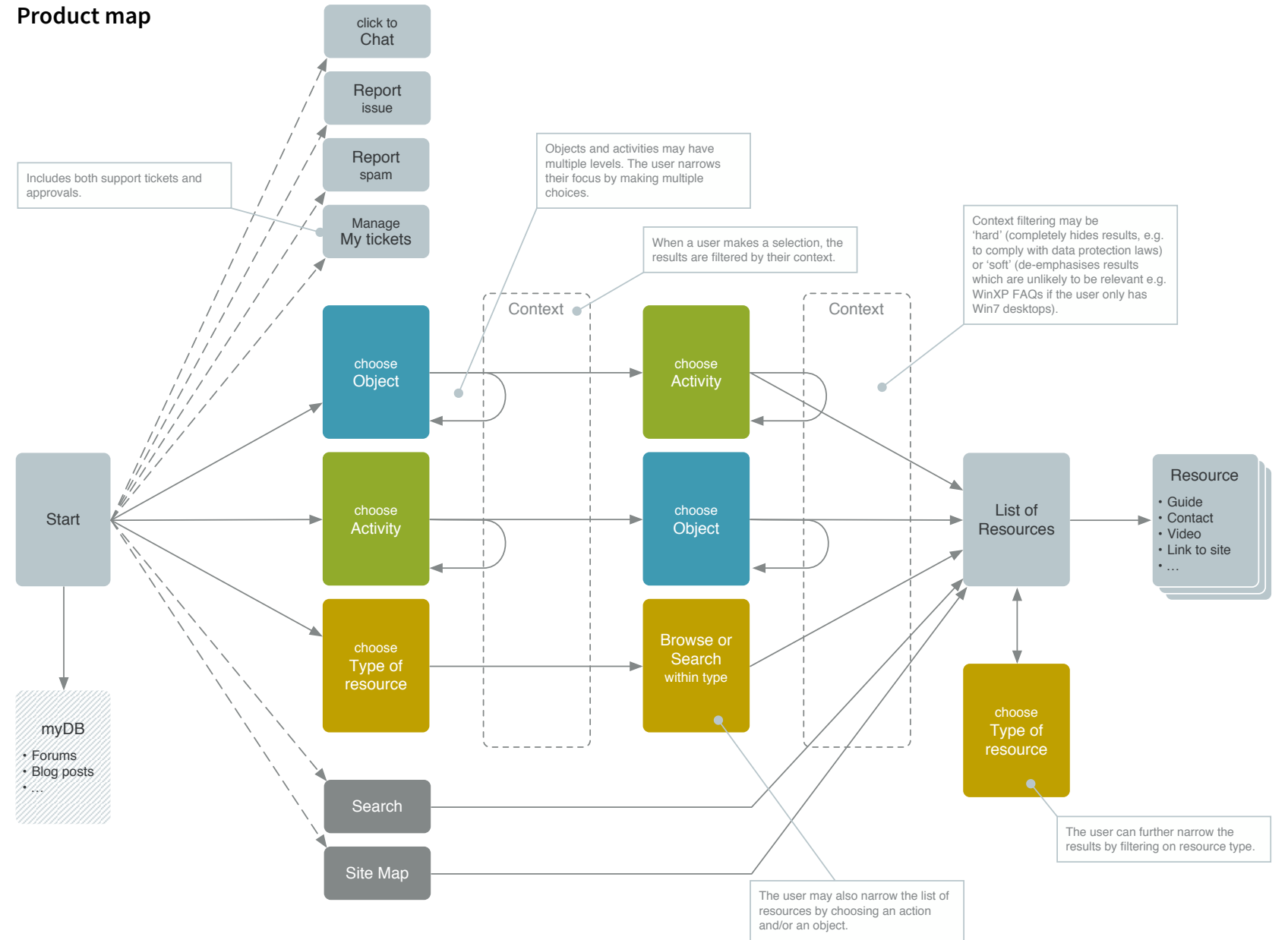
The client had an extensive IT infrastructure managed by diverse groups around the world. Each group managed their own intranet site. The client estimated fragmented online support cost them 0.5 hours of lost time per week for each of their 77,000 users. I was asked to design a way to make the content navigable without rebuilding the entire intranet.

I served as lead on a team of two. We inventoried 50 existing sites, then used techniques like the KJ-Method in stakeholder workshops to better understand the sites' uses and priorities. I combined our findings with intranet metrics and the client's internal surveys to develop a conceptual model of the way users thought about IT problems.

Concept model



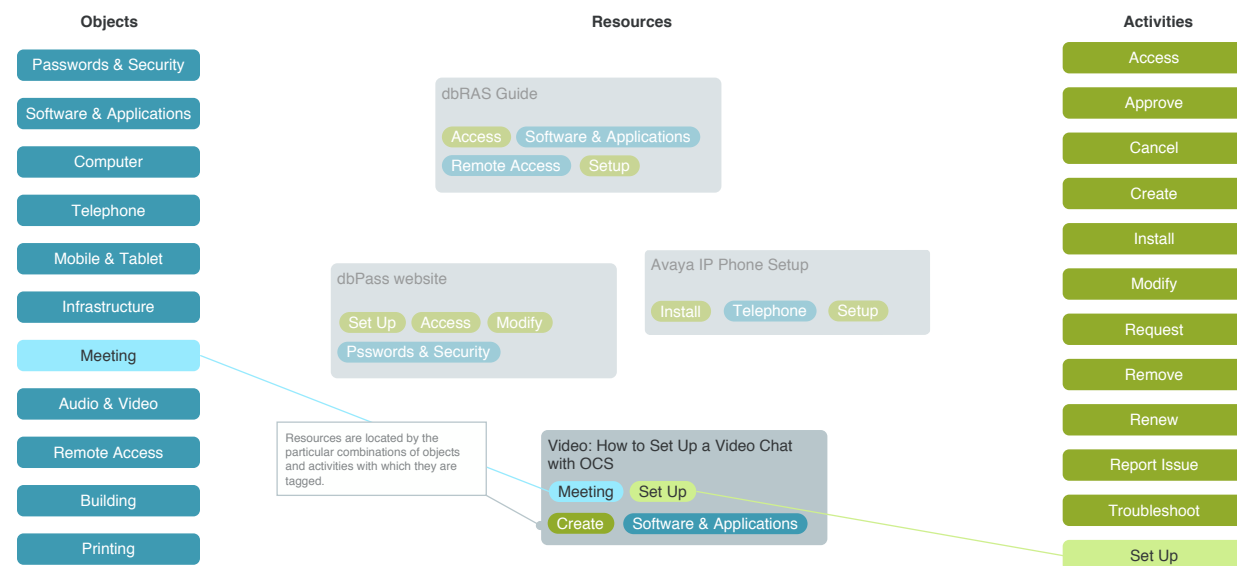
Product map



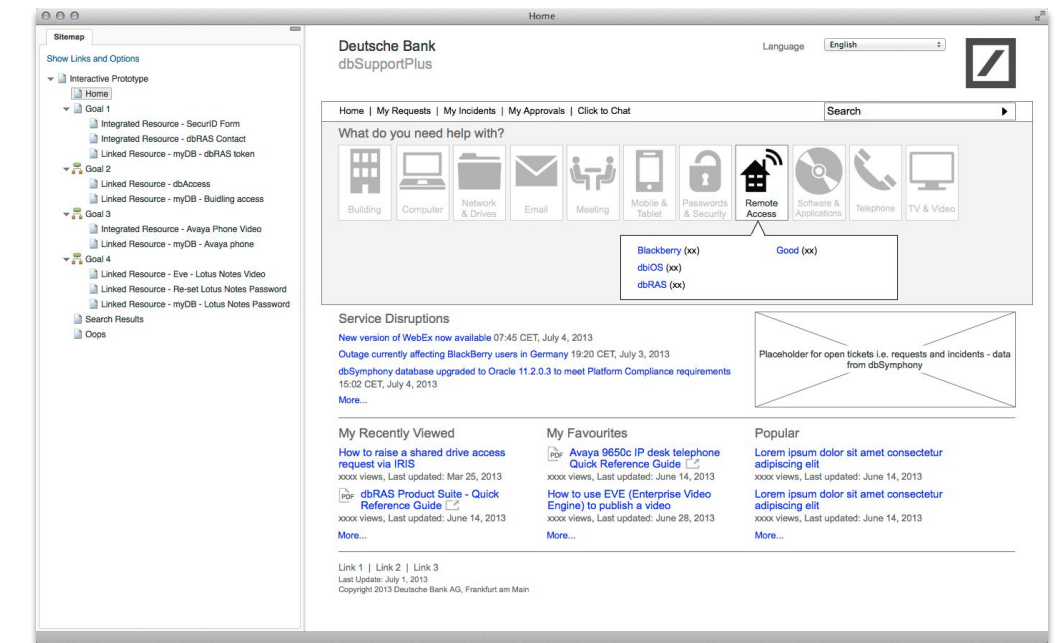
Using the concept model as a guide, we developed a faceted navigation system that accommodated different users' mental models and allowed the system to adjust results in response to analytics. The tag-based model allowed individual site owners to do much of the work to integrate their pages, avoiding a large centralised IT project. While the other designer fleshed out our taxonomy, I created a series of diagrams to communicate the design to site owners. We also used our research to help prioritise sites for integration.

The client was delighted with the concept, and I handed the project over to the other designer to develop a prototype for testing. User testing validated the design's effectiveness, with only relatively minor changes to the taxonomy required before delivery of the final design.

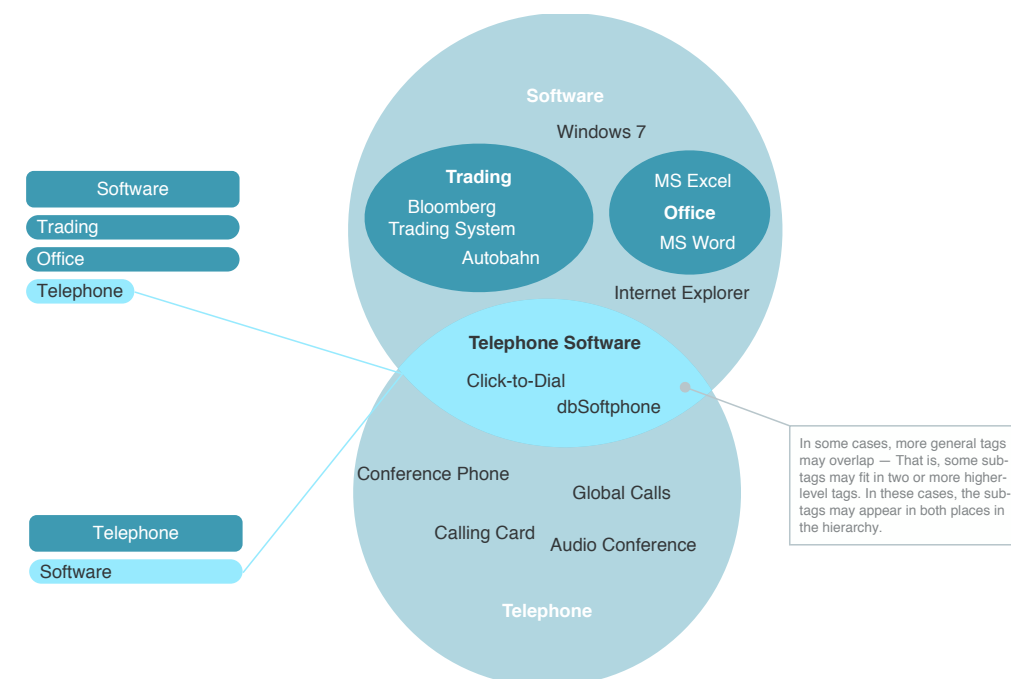
Locating a resource



Prototype



Overlapping tags



Yahoo! Templating & Translation System

Yahoo! Europe required a system that would allow the engineering team to build and maintain cutting-edge media sites for multiple markets. As lead of the Tools UI team, one of my team and I joined the project to design and build a UI which would facilitate code re-use and debugging across multiple sites.

Split between the U.S. and the UK, the team used a scrum-based process with daily stand-ups on IRC. Design ran concurrently with development. I conducted user interviews and contextual enquiry to determine user needs which were prioritised and evaluated for feasibility in full-team workshops. I then proceeded to sketch solutions and performed user testing with the target developers. In-progress designs were posted to a wiki for commentary, and formal design reviews were held every two weeks.

Previewing a page

Code elements not visible on the page

A list of the code elements which create this section of the page

Text for which the system has translations for other languages

Configuring inheritance

Each tab contains an inheritance axis. The location of a page on all axes in combination determines which element is used when a site is published

Each axis is a hierarchy. The hierarchy may be configured differently for each class of site element

Unsaved changes

The system used a hierarchical inheritance scheme with multiple dimensions to determine which bits of code ('templates') were used on which page. Effective code reuse required developers to know which templates a page used and which other pages used those same templates. The team was initially wary of the technical difficulty of tracking tens of thousands of templates, but I used research and user comments to convince them of its necessity.

I designed sparkline-inspired graphics to show where in the inheritance chain a template existed. Colours highlighted templates that were inherited from elsewhere or overridden lower in the chain. Markers in the navigation showed where files had been changed to help developer see unexpected knock-on effects from the changes they made.

Red exclamation points indicate unpublished changes

The inheritance hierarchies are used to select a location in the inheritance chain; locations are defined by selecting a node on each axis

When the designs were presented to the intended users in a tech talk, the developers were surprised and delighted by the sophisticated GUI. They praised it as being a tremendous time-saver, and a radical improvement on the existing tool.

Pages screen

Grey templates were inherited from higher in the inheritance chain

Red templates are overridden lower in the inheritance chain

Three lines represent the three inheritance axes; dots on the lines indicate where on that axis the template on this page exists, red dots indicate the template is overridden lower on that axis