

Research for interaction Designers are often keen to shy away from digital media projects, perhaps because they have a tendency to falsely equate technology with a lack of creativity. Brief Your workshop challenge is to undertake design research for a new interactive product or service that will make life simpler for two important target audiences – 'organized parents' and the 'young tech elite'. These two audiences both have the disposable income to be able to afford to pay for a product or service that would effectively organize, make more efficient and thereby enhance their work/life balances. Start to collect and digitize inspirational images and to reference material that you come across in books, magazines, online and so on. Organize your images into themed folders on your computer, such as by colour, image, typography and layout, or by more specialist categories such as audiences, brand language, navigation elements, art direction and so on. Create a document the size of your desktop in Adobe Photoshop or Illustrator and place and arrange your digitized images on the canvas in order to create your moodboard. Fortunately, it is much easier than ever before to keep track of and share sources of inspiration, thanks to an array of simple bookmarking and portfolio sites. Choosing the right resources and tools for this is a matter of personal choice – but the table here provides a selection of bookmarking and portfolio sites for you to get started with!

Google's PageRank scores pages from 0–9 based on the number and importance of incoming links from other web pages. Alexa Toolbar ranks and displays graphs of visits, and (perhaps more interestingly) also displays related links to websites with similar content, which is great for finding out more about the competition.

Industry perspective: Eilidh Dickson & Helle Rohde Andersen, CIID Consulting Client Novo Nordisk Brief To investigate the lives of Type 2 diabetes patients in the USA, with a view to discovering unaddressed user needs and new opportunities for innovation.

Brand and user experience workshop These photos taken during a brand workshop with Plump Digital's client, Ardent Financial Planning, show a range of research techniques that help both designers and clients to evaluate current brand position and user experiences prior to starting new design work.

Agency CIID Consulting (Copenhagen Institute of Interaction Design), Copenhagen, Denmark Solution Designers and researchers from CIID undertook in-depth field research through an approach they termed 'Immersive Living', which discovered a number of key findings that were presented through the design of an interactive iPad app. A limited number of participants, usually between six and twelve, are selected from a target audience or consumer group, and their preferences, attitudes and opinions are then gathered through moderated discussions.

Middle row: Competitors' visual identities, marketing material and websites are analysed to help evaluate their relative strengths and weaknesses. For example, a website with a clean minimal interface employing a subtle use of typography may appeal to one technically savvy user, but to an IT novice with visual impairments it may appear obscure and difficult to read.

Moodboards are still very useful, but their form is changing as it is now much easier to simply curate them online using sites such as Pinterest, or to create moodboards using desktop software packages, which can be easily changed and stored, shared and even polished for client presentations.

Better every day at day care with NFC The Finnish agency Nordkapp worked closely with their clients to help shape the brief as part of the EU-funded Smart Urban Spaces research initiative. The Nappula project aims to test and research how to best utilize contactless technologies (such as radio frequency identification (RFID) and near field identification (NFC)) in day-care centres. Investigating

website popularity Download Google Toolbar and Alexa Toolbar for your web browser so that you can view the popularity of websites that you visit at a glance. Scenarios and competitor analysis are often used together to give insight into user experience as they generate lists of important content and functions that can then be collated to form the basis of a design.

**Culture hunt** In contrast to cultural probes, designers gather research first-hand by visiting selected locations for a set period of time on designated culture hunts. Information can be gathered by using the same techniques as for cultural probes – that is, diaries, notebooks, cameras and sound recording equipment, as well as by undertaking impromptu interviews.

**Moodboard desktops** Traditional moodboards collaged with images cut from magazines, printed photos and colour swatches from the local hardware store have become somewhat anachronistic in the modern open-plan design studio. This time we chose to use an extremely small sample of three patients; however, we spent a week with each of them and met with anyone who was involved in their network of care. This is particularly the case for interactive projects, such as building a website or designing an app, where user experience (UX) is more likely to be active rather than passive. Building a new website therefore requires careful research and user testing as part of an iterative design process in order to ensure that users can access its content and use its functions in the most effective and rewarding way. A good brief will articulate the project aims, requirements, intended audience, timescales, budget and, increasingly, the criteria by which success will be measured. To avoid costly misunderstandings, some design agencies therefore prefer to supply their clients with a tried-and-tested brief pro forma to make sure that they capture all the essential information in a consistent format that their design team can then quickly and easily interpret.

**Distinctiveness** is the ideal marketing quality for a brand: those brands that are closely clustered in the same area of the matrix will be less distinct and will invariably face the most competition. This level of information commonly relies on 'page tagging', whereby a small piece of code (usually a JavaScript) is inserted into every website page. The cultural probe can be as simple as a paper diary and pen or as sophisticated as a smartphone, which enables participants to take photos, record videos and write diary entries as part of a blog.

**Sketchbooks and blogs** There is still nothing to surpass a traditional sketchbook for ease and simplicity in recording notes, reference materials, thoughts and initial ideas. Most professional photo libraries will allow you to use competing images of their photographers' and image-makers' work for the purposes of producing mock-up designs so long as images are not published or used in any commercial form. Yet, technology and creativity should not be seen as diametrically opposed to one another; each new technical innovation actually brings with it a wealth of new creative opportunities to explore. The relentless pace of technological change does, however, mean that digital media projects are often complex, because how audiences or end users will respond to new developments cannot be easily anticipated without solid research and development. Unlike reading a magazine or watching a DVD, where a certain type of consumer use and responsive behaviour may be assumed, navigating a new website can be similar to handling an unfamiliar appliance for users.

**Top row:** A 'warm-up' exercise identifying car brand values helps to sharpen clients' analytical skills before they then learn to apply them to their own brand. Most web-hosting companies provide some form of web analytics tool when you acquire space, but the most popular free tool is Google Analytics. Web analytics should be used on a continual basis to assess whether

website changes and digital promotions are achieving measurable results. User research Unlike market research methods, which give general overviews of consumer behaviour and market competition, user research methods give detailed insights into user needs and behaviours from both real and imagined end users. The key benefit of a focus group over individual interviews is this element of group discussion, which can lead both to a better understanding of the focus group's perceptions and attitudes, and usefully enables problems to be identified and investigated in more detail. Imagine, for example, shopping for a new online bank account, trawling through discussion forums and comparison sites for advice, before assessing the online application processes for a range of different banks. There is so much to see and learn at the mere press of a search button that the possibility of missing an example of creative greatness can sometimes feel overwhelming. First, we sent the patients sticky notes prior to our visit so that they could tag objects in their homes that they associated with their diabetes or that made their everyday life easier. Bottom row: A brand matrix is a visual way to compare brands using selected criteria. The drawing of customer journey maps helps designers and clients understand how users interact with brand and service touchpoints over time. The goal of the project is to find better practices for the daily administrative routines, such as monitoring presence, and thus free time for the children. Competitor analysis When designing an identity for a TV channel, creating a new app game or redeveloping a website, knowing your competition is very important. Web analytics can tell us a range of information about site visitors, including: the number of unique and returning visitors; the average number of pages viewed; the average length of time spent on a site; the user's location; the flow of pages viewed (also known as 'clickstreams'); and the percentage of visitors who viewed the site from a mobile device. Focus groups In contrast to questionnaires, focus groups allow a researcher to gather qualitative information about a product, service or idea. Cultural probes last a set period of time, during which participants may receive further guidance via text or email. The methods described below represent a small selection of those available that might be used to encourage the investigation, recording and use of visual research for digital media design projects. ED: Yes, Novo Nordisk wanted to gain a more in-depth understanding of the lives of Type 2 Diabetes patients, particularly in the USA where the condition is an increasingly widespread problem. Now that we can watch television on our phones, download movies to our laptops and listen to podcasts on TVs, organizing our social media and personal communication is becoming an ever-more complex and time-consuming job. In this chapter, we will explore a range of research techniques and strategies that may prove vital when performing design research for an interactive project. Questionnaires and surveys Where time (and budget) allows, a questionnaire or survey may be used to gain new quantitative market intelligence. If you do want to ask speculative questions, setting up a focus group might be a more appropriate research method to use, as this will allow you to explore the respondents' answers and motivations more thoroughly. Score the products in a table, take screenshots of their key features and write down their individual strengths and weaknesses. This statistical information or 'web metrics' is important in helping to judge the effectiveness of any changes to the website or increase in traffic resulting from promotional campaigns. Care needs to be taken so that leading questions are avoided and the views of strong characters within the focus group do not unduly influence other participants. They are widely used in web and product design to help clients

and designers visualize their audience when making decisions about design features, user experience and content.

**Cultural probes** Cultural probes are information-gathering kits that allow participants to self-document a design issue that is being explored. The aim of the probe is to collect a plentiful supply of qualitative information that will inform and inspire your design. The aim of a culture hunt is for designers to immerse themselves in places of study in order to gain insights into the design problem and so gain inspiration for a likely solution. Design students are often encouraged to keep personal blogs using Tumblr or Word Press as a means of self-reflection, as well as a way of receiving helpful comments from others.

**Interview with Eilidh Dickson and Helle Rohde Andersen** Eilidh is a Project Lead and Interaction Designer and Helle is an Interaction and Service Designer. This was a way for them to feel confident in their own home and highlight the things that they wanted to show us.

Next, participants placed people or stakeholders who influenced their diabetes care on an axis, some near to them, others further away. Because part of the project was visualization, we went through the mammoth task of transcribing the audio and videos. Technology has been a major driver behind this rapid process of change – but could it possibly simplify things too? On the flipside, as we become more media savvy, advertisers are working harder than ever before to create meaningful dialogues with consumers in order to sell their products and services.

Your design research will use the competition analysis, personas and scenarios outlined earlier in this chapter to provide a list of user-experience requirements for this potential new service. Search for the following terms on YouTube's homepage: Ericsson's 'The Social Web of Things'; and Microsoft's 'Future Vision' videos and 'Our LifeStyle'. These could include a range of services, from email clients and social media organizers, through to interactive television and online entertainment media, such as iTunes, Netflix or Spotify. Score the products in a table, take screenshots of key functions and write down their individual strengths and weaknesses.

Misinterpretation caused by not asking the right questions at the briefing stage, or from not researching the brief thoroughly enough, are common mistakes made by inexperienced designers. When reading a brief, or receiving a briefing presentation, we often look for guidance on three key areas of research: project context, focus and process.

**Context review** A context or literature review is a comprehensive study of corporate literature, articles, papers, reports and books on your client, their industry and their competitors. The difference between a questionnaire and a survey simply comes down to who fills out the form: a participant fills out a questionnaire, whereas a researcher questioning a participant fills out a survey.

**Brand matrices** essentially allow designers and their clients to visualize a brand's values relative to its competition. Two important criteria are chosen for the axes of a matrix and are labelled with appropriate scales.

**Shared inspiration** Inspiration is everywhere in this 24/7, always-online world.