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Setting the Stage

The Seven Deadly Sins of UX Research

Most companies would claim to design products and services that are simple to use. But when you ask customers to actually use these products and services, they often find them far from simple. Why is there a disconnect between what organizations think of as "simple" and what users actually experience?

It's fashionable to blame poor usability on firms not doing enough user research. On the face of it, this seems like the obvious cause of poor usability. If firms only did the research, they would realize their product was a dud. But, like most obvious reasons, it's wrong.

In reality, there's never been a better time to be a purveyor of UX research tools. Every organization seems to want to "take the temperature" of their customers. Take a quick look in your email junk folder at the number of times you've been asked to complete a survey over the last month. If it's like ours, it will number in the double digits.

The problem isn't with the *quantity* of UX research. It's with the *quality*: organizations struggle to distinguish good UX research from bad UX research. Here are seven examples of poor UX research practice that we've come across in our work with clients—along with some ideas on how to fix them.

- Credulity.
- Dogmatism.
- Bias.
- Obscurantism.
- Laziness.
- Vagueness.
- Hubris.

Credulity

The dictionary defines credulity as a state of willingness to believe something without proper proof. The form this takes in UX research is asking users what they want (and believing the answer).

A couple of months ago, David was attending a usability study on behalf of a client. He was there because the client thought that the usability tests they were running were not delivering much predictive value. The client was concerned they weren't recruiting the right kind of people or maybe the analysis wasn't right.

As David sat in the observation room, he watched the administrator show three alternative designs of a user interface to the participant and ask: "Which of these three do you prefer? Why?"

Asking people what they want is very tempting. It has obvious face validity. It seems to make sense.

But it's also wrong.

Here's why. Over 40 years ago,[1] psychologists Richard Nisbett and Timothy Wilson carried out some research outside a bargain store in Ann Arbor, Michigan.

The researchers set up a table outside the store with a sign that read, "Consumer Evaluation Survey—Which is the best quality?" On the table were four pairs of ladies' stockings, labelled A, B, C and D from left to right.

Most people (40%) preferred D, and fewest people (12%) preferred A.

On the face of it, this is just like the usability test David observed.

But there's a twist. All the pairs of stockings were identical. The reason most people preferred D was simply a position effect: The researchers knew that people show a marked preference for items on the right side of a display.

But when the researchers asked people why they preferred the stockings that they chose, no one pointed to the position effect. People said their chosen pair had a superior denier, or more sheerness or elasticity. The researchers even asked people if they may have been influenced by the order of the items, but of course people looked at the researchers like they were crazy. Instead, people confabulated: they made up plausible reasons for their choice.

There's an invisible thread joining the study by Nisbett and Wilson and the usability test we've just described. The reason we call the thread "invisible" is because few UX researchers seem to be aware of it—despite the fact

that there's a whole sub-discipline of psychology called Prospect Theory[2] devoted to it—and that Daniel Kahneman won a Nobel prize for exploring the effect.

People don't have reliable insight into their mental processes, so there is no point asking them what they want.

This quotation from Rob Fitzpatrick[3] captures it perfectly: "Trying to learn from customer conversations is like excavating a delicate archaeological site. The truth is down there somewhere, but it's fragile. While each blow with your shovel gets you closer to the truth, you're liable to smash it into a million little pieces if you use too blunt an instrument."

How can we overcome this problem?

Our definition of a successful UX research study is one that gives us actionable and testable insights into users' needs. It's no good asking people what they like or dislike, asking them to predict what they would do in the future, or asking them to tell us what other people might do.

The best way of gaining actionable and testable insights is not to ask, but to observe. Your aim is to observe for long enough that you can make a decent guess about what's going on. Asking direct questions will encourage people to make things up, not tell you what is actually going on.

There are two ways to observe. We can observe how people solve the problem now. Or we can teleport people to a possible future and get them using our solution (a prototype) to see where the issues will arise.

The key point is: What people say is not as useful as what people do, because people are unreliable witnesses.

Dogmatism

Dogmatism is the tendency to lay down principles as undeniably true, without consideration of evidence or the opinions of others. The form this takes in UX research is believing there is one “right” way to do research.

We’re sure you’ve worked with people who think that a survey is “the right way” to understand user needs. Perhaps because we hear about surveys every day in the news, people tend to think of them as being more reliable or useful. The notion of using an alternative method, like a field visit or a user interview, doesn’t have the same face validity because the sample size is comparatively small.

But sadly, having a large number of respondents in a survey will never help you if you don’t know the right questions to ask. That’s where field visits and user interviews come in.

Field visits and user interviews are a great way to get insights into your users’ needs, goals and behaviors. But these aren’t the only solution either.

Recently, we worked with a UX researcher who seemed to think there was no room for any research method other than user interviews. To validate personas, run more user interviews. To identify your top tasks, run more user interviews. To compare two alternative landing pages, run more user interviews.

This kind of dogmatism is unhelpful.

Field visits and user interviews give you signposts, not definitive answers. It’s broad-brush stuff, a bit like the weather forecast. There may be some patterns in the

data, but these aren’t as useful as the conversation you have with users and the things you observe them do. It’s those conversations that help you identify the gap between what people say and what they do—and that is often a design opportunity.

But there comes a point when you need to validate your findings from field visits and user interviews by triangulation: the combination of methodologies in the study of the same phenomenon. Quantitative data tell us *what* people are doing. Qualitative data tell us *why* people are doing it. The best kind of research combines the two kinds of data. For example, you might choose a survey to validate personas you’ve developed through field visits. Or you might choose multivariate A/B testing to fine tune a landing page that you’ve developed by usability testing.

Triangulation is like having different camera angles in a movie. It would be hard to understand the full picture of what is going on in a movie if every frame was shot as a close-up. Similarly, it would be difficult to empathize with the characters if every image was shot as a wide angle view. Like movies, you want your research to show the close-ups but you also want to see the bigger picture.

Bias

Bias means a special influence that sways one’s thinking, especially in a way considered to be unfair.

UX research is a continual fight against bias. There are a handful of different kinds of bias that matter in UX

research, but it’s response bias we want to discuss here. This is caused by the way in which you collect data.

Sometimes the bias is obvious. For example, if you ask poor questions you’re likely to get participants to tell you what you want to hear. You can correct this bias by teaching people to ask the right questions. But there’s an even more pernicious type of response bias that’s much harder to correct. This happens when the development team carries out the research and find that people don’t really have a need for the product or service. It’s tempting to hide this from senior managers because no one wants to be the purveyor of bad news. But if there’s no need for your product, there’s no point trying to convince senior managers that there is—you’ll be found out in the end. It’s a bad idea to cherry pick the results to support what a senior manager wants to hear.

You shouldn’t approach interviews with a vested interest: The UX researcher’s job isn’t to convince people to use a service, or to get the results management want; it’s about digging for the truth. This doesn’t mean you shouldn’t have a point of view. You should. Your point of view should be to help the development team understand the data, not just tell the development team what they want to hear.

Obscurantism

Obscurantism is the practice of deliberately preventing the full details of something from becoming known. The form this sin takes in UX research is keeping the findings in the head of one person.

UX research is often assigned to a single person on a team. That person becomes the spokesperson for user needs, the team's "expert" on users. This approach is a poor way to do research, and not just because the UX researcher doesn't know all the answers. The reason it fails is because it encourages the development team to delegate all responsibility for understanding users to one person.

One way you can prevent this sin on your own project is to encourage everyone on the team to get their "exposure hours." Research[4] shows that the most effective development teams spend at least two hours every six weeks observing users (for example, in field visits or usability tests).

What you're aiming for here is building a user centered culture. You do that by encouraging the whole development team to engage with users. But you also need to design iteratively. And that takes us to our next sin.

Laziness

Laziness is the state of being unwilling to exert oneself. The form this takes in UX research is in recycling old research data as if it's boilerplate that can be cut and pasted into a new project.

Our favorite example of this comes from the world of personas.

We find that clients often approach the process of developing personas as a one-time activity. They will hire an outside firm to do field research with the requisite number of users. That firm will analyze the data and

create a set of beautifully presented personas. Now we already know this is a bad idea because of the sin of Obscurantism. We want the development team doing the research, not an external firm.

But let's ignore that issue for a moment. The reason we're using personas as an example here is because we are often asked by a client if they can re-use their personas. They are now working on a new project, which has a passing resemblance to one on which they developed personas last year. Since their customers are basically the same, isn't it OK to recycle the existing personas?

This idea so misses the point of what UX research is about that it serves as a good example.

Here's a secret many people don't know: *you don't need to create personas to be user centered*. User centered design is not about personas. In fact, personas really don't matter. Creating personas should never be your goal—understanding users' needs, goals and motivations should be your goal. In some ways, a set of beautifully formatted personas is just proof that you met with users, in the same way that a selfie with a celebrity proves you were at the same restaurant.

The world you want to move to is one where the development team knows its users so well that personas aren't needed. You don't get to this world by recycling old research. You do it by making UX research part of the culture.

We've known for a long time now that you achieve user centered design by iteration: you build something, you measure its usability, you learn from it and you redesign. Re-using old data, whether it's in the form of

personas, usability tests or field visits, is not iterating—and it's certainly not learning.

Vagueness

Vagueness means not clearly or explicitly stated or expressed. In terms of UX research, we see it when a team fails to focus on a single key research question and instead tries to answer several questions at once.

This sin is partly caused by the sin of laziness. If you do research only occasionally, you need to answer lots of questions. This means you end up learning a little about a lot. In fact, you can learn an important lesson about UX research from a dishwasher. If you cram a lot in, nothing gets very clean.

With UX research, you actually want to learn a lot about a little. That "little" question is the specific question that's keeping you up at night. To uncover this question, we ask the development team to imagine the most useful, actionable research results possible. What would they tell us? How would we use them?

Everyone on the team should agree on the questions you plan to answer and the assumptions you plan to test. These top questions should be the drivers of every research activity.

This means you need to get specific with your research questions: you should be able to articulate your research questions on a couple of small sticky notes.

In fact, that leads us to an interesting exercise you can do to discover your research question.

Sit the development team in a room. Give each person a set of sticky notes. Tell them to imagine that we have

an all-knowing, insightful user outside the room who will answer truthfully any question we throw at them.

What questions would they ask?

We get the team to write one question per sticky note. After five minutes, we work as a team to affinity sort the sticky notes. Then we dot-vote on the group of questions that are most urgent to answer. This idea works well because we not only identify the high-level theme but we also have a list of the specific questions to which we need to get answers.

Hubris

Last but not least we have Hubris. Hubris means extreme pride or self-confidence.

In UX research, it takes the form of taking undue pride in your reports. All UX researchers suffer from this to some extent, but those with PhDs are the worst. And we say that as proud recipients of a PhD.[5]

UX researchers love data. And when you love something, you want to share it with people. So you create detailed reports packed with graphs and quotations and screenshots and callouts. Look at my data! Look at how beautiful it is!

Sadly, few other people are as fascinated by data as we are. Our challenge is to turn that data into information, and turn that information into insight.

There are two problems with excessive detail.

People don’t read the report. They turn the page, see more data, appreciate how clever you are, get bored, move on.

Overly detailed reports delay the design process. You don't need to do extensive analyses in a spreadsheet to find the top problems. That analysis is useful later, when you want to dig into the details, but the critical findings need to be fed back quickly. This is so the design can be modified and so the build-measure-learn cycle can continue.

Instead, you need to create information radiators (like usability dashboards and one-page test plans) to get teams understanding the data so they can take action on it. Information radiators are essentially advertising billboards that gradually permeate the team's awareness of your results. As a general rule, if people need to turn the page, your report is too long. So ask yourself: how can we capture the results in a single glance?

This could be a concise visual way of presenting research data, like a user journey map, a persona, or a usability testing results dashboard.

What Does Good UX Research Look Like?

As we've reviewed these sins, you may have noticed that many of them appear to have a common cause: the root cause is an organizational culture that can't distinguish good UX research from bad UX research.

Companies say they value great design. But they assume that to do great design they need a rock star designer. But great design doesn't live inside designers. It lives inside your users' heads. You get inside your users heads by doing good UX research: research that provides actionable and testable insights into users' needs.

Great design is a symptom. It's a symptom of a culture that values user centered design. Bad design is a symptom too. It's a symptom of an organization that can't distinguish good UX research from bad UX research.

And perhaps that's the deadliest sin of them all.

THINK LIKE A UX RESEARCHER

- Think of a recent project you worked on where UX research failed to deliver the expected business benefits. Were any of the "seven sins" a likely cause? If you could return to the beginning of that project, what would you do differently?
- We introduce the notion of "information radiators" in this essay: an at-a-glance summary of UX research findings. Thinking of the last UX research you carried out, how might you present the findings on a single sheet of paper?
- We talk about the difficulty of delivering bad news to senior managers. What prevents your organization hearing bad news? How can you help your organization learn from its mistakes?
- Every UX researcher has their favorite UX research method, be it a field visit, a usability test or a survey. This becomes a problem when you use the same tool to answer every research question. Identify your favorite and least favorite UX research methods and question if this "favoritism" affects your practice. Identify two research methods you would like to learn more about.

- We define a successful UX research study as one that gives us actionable and testable insights into users' needs. What makes an insight "testable"?

The Two Questions We Answer with UX Research

Fundamentally, all UX research answers one of two questions: (a) Who are our users and what are they trying to do? (b) Can people use the thing we've designed to solve their problem? You answer the first question with a field visit and you answer the second question with a usability test.

Field Research Answers the Question, "Who Are Our Users and What Are They Trying to Do?"

A field study focuses on the big picture: how people currently solve their problem. With field research, you examine the workflow across multiple channels and observe user behaviors, needs, goals and pain points. Field research is fundamentally outward looking: your aim is to find out what's happening in the real world.

The typical research location is a participant's home or workplace. You're looking to discover how people achieve their goals right now, before your system has been built or invented. What problems do users face? What needs do they have? What are their skills and motivations?

Lean Startup[11] researchers characterize this as "getting out of the building" but getting out of the building isn't enough. A field visit is much more than a pop-up user interview in a coffee shop. To use the analogy of animal behavior, an interview is like a visit to the zoo whereas field research is like going on safari (this is an analogy we will return to in the next essay). With field research you observe real behavior: you see what people do, not just listen to what they say they do. In short, you go where the action happens.

Without field research, you're designing in the dark. With field research, it's like someone has turned on the room lights.

Again, to use the language of Lean Startup, field research helps you validate the *problem hypothesis*. Is the problem that you're trying to solve for users really a problem? This is important because development teams often experience a kind of groupthink where they believe they are solving a real user need but in fact few people are bothered by the problem.[12]

The other issue you'll uncover with your field visit is how serious a problem this is. Some problems aren't so serious for people that they are willing to spend time or money solving them. You may have discovered an itch, but a field visit will show you if your customers are happy with their current way of scratching.

Usability Testing Answers the Question, "Can People Use the Thing We've Designed to Solve Their Problem?"

A usability test focuses on how people do specific tasks and the problems they experience when using a particular system. Traditionally it takes place in a lab, but in practice it can take place anywhere (including the field). Typical research locations include:

- A participant's home or workplace.
- Public spaces, like coffee shops and libraries (so called "pop-up research").
- Research studios or labs.
- Meeting rooms.
- Your desk (using a laptop or phone for remote research).

Usability testing is fundamentally inward looking: you give your users a prototype and a set of tasks and you see if they can complete those tasks.

The key difference between a usability test and a field visit is that with a usability test you're evaluating a specific design idea with your users. If a field visit is like turning on the lights, then a usability test is like looking under the microscope. Field visits give you the big picture whereas a usability test lets you evaluate a specific solution.

To use the language of Lean Startup, a usability test helps you validate the *solution hypothesis*. Does your proposed solution work?

Should You Run a Field Visit or a Usability Test?

Field visits and usability tests are complementary research techniques so you need to do both. A field visit

tells you if you're *designing the right thing*. A usability test tells you if you've *designed the thing right*. For example, your product might perform fine in a usability test but it would still fail in the market if people don't really care about the tasks you've asked them to complete.

Your choice of method depends on where you are in your development lifecycle.

If you're in the discovery phase, you should be carrying out field visits to turn on the lights. This is because you want to answer the question, "Who are our users and what are they trying to do?"

Later in the development lifecycle, it's time to get out your microscope and usability test your design solution with users. This is because you want to answer the question, "Can people use the thing we've designed to solve their problem?"

In summary, you simply need to ask two questions:

- Is there a user problem to be solved? (If unsure, carry out field research).
- Have we solved it? (If unsure, carry out usability testing.)

THINK LIKE A UX RESEARCHER

- As you'll see from some of the examples in this book, we have worked with more than one development team who believe they are designing a useful product but in practice there is no user need for it. Thinking of the product you are working on at the moment, what evidence do you have that it is solving

a user need? If you were to play Devil's advocate, how would you critique that evidence?

- It's not uncommon for a development team to be given a solution by senior management or marketing and then told to build it. This skips validation of the problem hypothesis. Does this happen in your own organization? How could you push back against it?
- The world is awash with waste materials and waste products. Do you have an ethical responsibility to insist your organization first validates the problem hypothesis before developing a product that may ultimately fail and cause yet more waste?
- If your organization follows an Agile development process, like Scrum, does it include sufficient time in early sprints to validate the problem hypothesis? How would you adapt the process to ensure there was sufficient time allocated to "discovery"?
- How easy or difficult would it be to adapt a usability test to also include questions around the participant's need for the product? In the first essay in this book ("The seven deadly sins of UX research") we pointed out that simply asking people if they need a product is flawed. So how would you find out if the user genuinely needed your solution in the context of a usability test?

2

Planning User Experience Research

Defining Your UX Research Problem

Without a clear understanding of a research problem one cannot expect UX research to deliver useful findings. Here are four techniques to help better define a research problem and sharpen your research question.

"If I had 20 days to solve a problem," observed Albert Einstein, illuminating an approach to research that may come as a shock to some in the corporate world, "I would take 19 days to define it."

In a culture somewhat preoccupied with solutions, the idea of deliberating over a research problem may seem heretical to some. Of course, logic and common sense tell us that you can't arrive at a solution if you don't understand the problem. And that's a rather worrying thought because companies spend a lot of money on customer and UX research and it would be nice to think it was solving something.

According to the Council of American Survey Research Organizations[1] (CASRO) an estimated $6.7 billion is spent each year in the USA, $2 billion in the UK, and $18.9 billion spent globally on just one method—survey research (research concerned with

measuring the opinions, attitudes, perceptions, and behaviors of population samples).

Alas, most of the research is inadequate because it doesn't move knowledge forward. In fact, Rohit Deshpande,[2] Harvard Business School professor and former executive director of the Marketing Science Institute, estimates that 80% of all customer research serves only to reinforce what companies already know, rather than testing or developing new possibilities.

Can we identify such inadequate research? Yes we can. Brace yourself, this might ring some bells. In his book *Research Strategies*, William Badke[3] explains that inadequate research:

- Merely gathers data and regurgitates it.
- Deals in generalities and superficial surveys, avoiding depth and analysis.
- Asks no analytical questions.
- Does not advance knowledge, but is happy to summarize what's already known.
- Is boring.

Shake Out the Issues

UX research can require a sizable investment in time and costs. Because the outcome will dictate the direction of a project and influence its success, there's too much at stake to risk mishaps or misunderstandings happening during the research. Although it seems increasingly common in the corporate world to skip this step, you should always conduct a pilot study prior to commencing the full research project.

The term “pilot” derives from the Greek word for rudder, and refers to steering and adjusting the course of something. TV shows are always piloted to get early audience reaction; engineers test jet engines on the ground before they use them to fly aircraft; and military leaders send out an advanced scouting party to check the lie of the land before any major action, all so that they can make adjustments to the plan. Doing research is no different. In fact, we would be remiss in our obligations to our client or development team if we jumped straight in to a “stage production” study without first giving everything a good shake down.

Typically, a research pilot test is conducted quite late in the preparation stage and resembles the kind of full dress rehearsal that theatrical actors would perform. It is typically used to check that the test design will return valid data, give the test administrators and data loggers an opportunity to practice, make sure the timing and logistics are in order, and check for any potential glitches in testing or recording equipment.

But we can also run a much earlier and much less formal pilot to help us better understand the research problem. This “pre-pilot” is more akin to actors doing an early read-through of a script. It requires no costumes or stage props. It requires virtually no budget and no recording equipment or testing lab. It’s not about collecting real data, it’s just about airing the research problem and getting it in front of some users to help flush out any issues before advancing further.

The Chinese have a phrase: “Hitting the grass to startle the snake.” This is the same thing. It’s a way of “hitting” the problem to see what jumps out, and it can be a useful

way of testing any assumptions you might have made, and discovering any previously unknown facets to the problem, prior to moving on to the test design step.

It's also a good way to identify any stakeholders you might have missed. For example, a while back Philip did a UX research study for an organization that required store visits to generate personas. During the planning phase he made sure that senior managers were aware of the research. At the time, the organization was in the middle of a merger. As he started preparing for the pre-pilot, word came back down the chain to delay the store visits because store managers were concerned that their staff would see Philip's team as management consultants in search of cost savings. If staff thought this was a time and motion study as part of a downsizing exercise this would create confusion and anxiety, and we would be unlikely to get any good data. By planning an early pre-pilot, we created an opportunity for this potentially damaging issue to reveal itself.

If you're planning a pilot test or a pre-pilot, remember to include members of the development team and invite them to join you so they can give you feedback and help shape the final test design.

THINK LIKE A UX RESEARCHER

- If we take the Albert Einstein quotation literally, he would spend 95% of his time planning a project and 5% of his time executing the plan. Although we wouldn't recommend such a dramatic split, it does raise the question of what proportion of your time you should spend planning a project. Thinking of a project

you are working on at the moment, what percentage of time has been, or will be, spent in the planning phase? Do you think this is sufficient? In an ideal project, what split would you aim to achieve? Might some projects require a different split between planning and execution—and if so, which ones?

- We list five indicators of inadequate research, as defined by William Badke. Assume you have been asked to audit a project to assess the quality of its UX research. Choose one of those indicators and identify two assessment criteria that would indicate good or poor quality research.
- We point out that the development team are important stakeholders, as are your users. Sketch a diagram illustrating the range of stakeholders on your project. Use a circle to indicate each stakeholder and vary the size of the circle to indicate that stakeholder's relative importance. Does this visualization help you consider who you should involve in defining the research problem?
- We discuss the notion of breaking down a construct (like "quality") into a set of sub-components (like performance, features and reliability) that can be separately evaluated. Try applying this idea to a research question on your current project (for example, "Is our mobile app easy to use?") Identify five sub-components that you could assess and that would answer your research question.
- Remembering that a pre-pilot is about "hitting the grass to startle the snake," what would a pre-pilot look like on your current project?

How to Approach Desk Research

Desk research is another name for secondary research. Broadly speaking, there are two types of research activity: primary research (where you go out and discover stuff yourself); and secondary research (where you review what other people have done). Desk research is not about collecting data. Instead, your role as a UX researcher carrying out desk research is to review previous research findings to gain a broad understanding of the research question.

Before carrying out a field visit, developing a prototype, running a usability test, or embarking on any project that you want to be user centered, it makes sense to see what people have done in the past that relates to the product domain. Although it's unlikely that anyone has carried out the exact research activity you're planning, someone has almost certainly tried to answer related questions. Reviewing this research is the quickest and cheapest way to understand the domain.

Carrying out desk research is a critical first step, for at least three reasons:

- If you don't know what has gone before, you won't know when you've discovered something new.
- You'll sound credible when you get face-to-face with users and stakeholders. If you've not done this "due diligence" you'll ask silly or irrelevant questions

and may find your participants cut your sessions short.

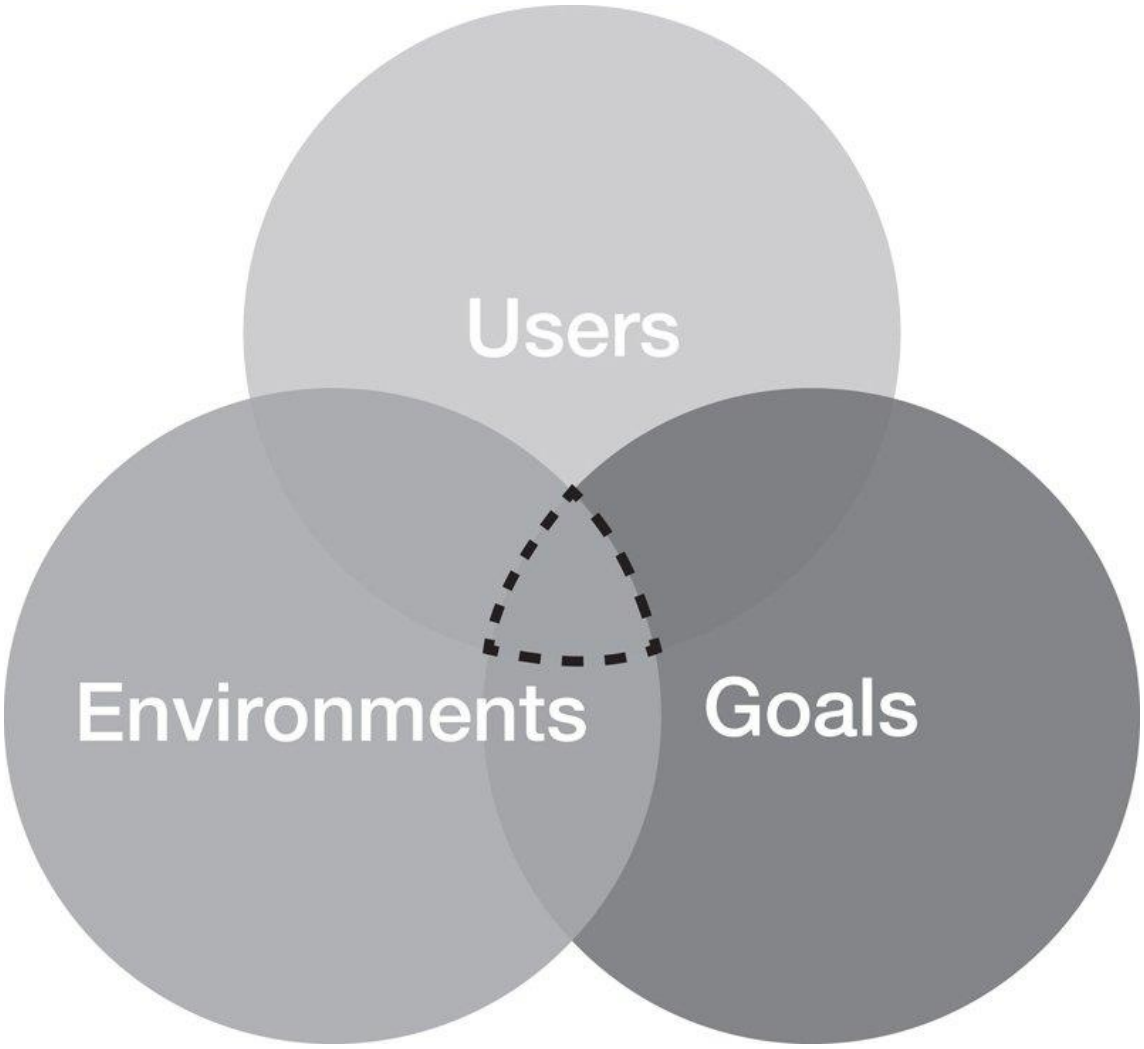
- Failing to do preparatory research is disrespectful of your participants' time. You may get less than an hour with a user of your system. Do you really want to waste half that time understanding the domain issues that you could have covered elsewhere?

How Do You Approach Desk Research?

At this point, we've had many UX researchers tell us that they're working on a bleeding edge design project so there isn't any desk research to do. There's a common misconception that no research exists.

In our experience, there is almost always something you can build upon. Here's an approach we take to go about finding it. It helps us stay focused but also makes sure that we remember to check all the possible nooks and crannies where relevant research findings may be hiding.

Figure 2.1: A Venn diagram showing users, goals and environments. Where these three overlap is the sweet spot for UX research



The Venn diagram (Figure 2.1) describes the context of use: your users, their goals and the environments where the action occurs. The best kind of research is where all three of these dimensions overlap: field visits that focus on your users trying to achieve their goals in context. This kind of research is so specific and relevant to your project that it may be hard to find, so don't get discouraged if you can't turn anything up in this area.

But there is potentially useful research in the other areas of overlap on our Venn diagram (Figure 2.2). This falls into three broad areas:

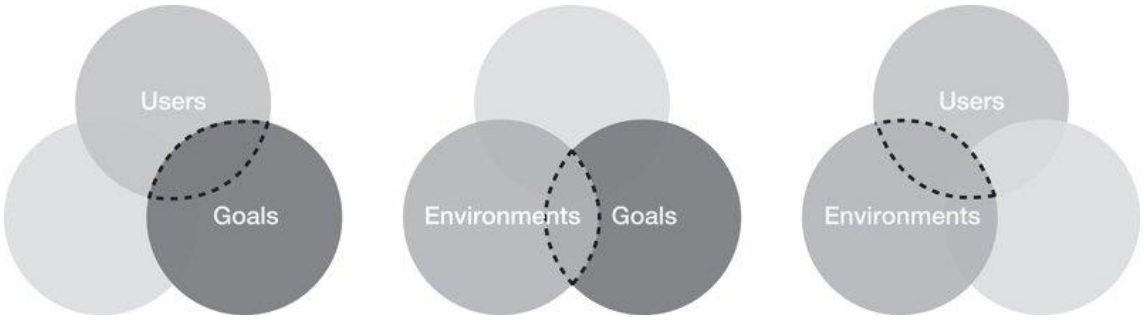
- Research about your users and their goals, but that was not carried out in context. This kind of research

will take the form of surveys, user interviews and focus groups.

- Research that addresses the goals your system will support and the environment it will be used in, but doesn't tell us much about users. Examples include call center or web analytics.
- Research that uncovers information about your users in their environment, but that may not address the goals that your system will support. This will take the form of field research by teams who are designing a product for the same kinds of user but to meet different needs.

The most likely place you'll find customer and user research is within your own organization. But you need to be prepared to dig. This is because research findings, especially on Agile projects, are often treated as throw-away by-products that apply to a specific project. The findings aren't shared outside the development team but typically make a fleeting appearance on a research wall or end up buried in someone's email inbox. Even when research findings are written down, and even when the report is archived somewhere, people typically don't know how to go about finding it. Organizations are generally poor at creating a shared repository of knowledge and rarely teach staff how to use the intranet or where past reports might be located. The result of these obstacles is that companies waste time and money either doing research that already exists or asking the wrong research questions.

Figure 2.2: This set of Venn diagrams shows that research into the overlap between users and goals, environments and goals and users and environments can also yield useful insights



So within your organization, you should:

- Talk to your stakeholders. Get to know the product owner and understand their goals, vision and concerns.
- Examine call center analytics or web analytics (if there is an existing service).
- Talk to front line, customer-facing people who currently interact with users.

Once you've covered the areas of overlap, your next step is to look for more generic information about your users, the environment in which they'll use the system, and the kinds of goals your system will support (Figure 2.3).

- What research has been done with your users, even if it's not directly relevant to their goals when using your system?
- What research has been done on the kind of goals your system will support, even if the research has been done with a different user group?

- What research exists on the kinds of environment where you expect your system to be used (environment means hardware, software and the physical and social environments in which your system will be used).

Figure 2.3: In almost every project, you'll find some research that exists into users, goals and environments. This may not be directly relevant to your specific research questions but it will help you become knowledgeable about the domain