AGILE EXPERIENCE DESIGN

A Digital Designer's Guide to **Agile, Lean,** and **Continuous**

Lindsay Ratcliffe
Marc McNeill

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New Riders
VOICES THAT MATTER™

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FOREWORD

IN A WORLD ENRICHED BY ABUNDANCE BUT DISRUPTED BY THE AUTOMATION AND OUTSOURCING OF WHITE-COLLAR WORK, EVERYONE, REGARDLESS OF PROFESSION, MUST CULTIVATE AN ARTISTIC SENSIBILITY... TODAY WE MUST ALL BE DESIGNERS.

—Daniel Pink,
A Whole New Mind

As it enters its second decade, the agile movement must continue to innovate and adapt to remain relevant. This book by Lindsay Ratcliffe and Marc McNeill continues a string of agile innovations and adaptations. It brings design back into the software delivery equation. “But, but,” agilists might say, “we always do design.” But Ratcliffe and McNeill are not talking about module design or database design; they’re talking about product design, graphic design, experience design, and more. This level of design *is* one of those things that is “hard to define, but I’ll know it when I see it.” As the authors say, great design marries a desirable product with an engaging experience, a combination found in Apple’s iPhone and iPad, for example.

The early agile movement was a reaction to the problems of waterfall development: splintering of roles, piles of documentation, and little collaboration. The remedies to the problems of waterfall included working in short iterations, reducing the proliferation of roles, slashing documentation, and fostering intense collaboration. But, as it turns out, specialisation wasn’t the primary problem—collaboration was. As the agile movement has matured, we’ve added back specialists as we’ve learned to integrate them into agile teams. That’s not to say that having a more general set of skills isn’t very valuable, but in our complex world there is still a need for expertise in certain areas.

Another trend over the last decade has been to show how, in a variety of ways, the statement “agile won’t work for or with xyz” is false. Issues with large projects, distributed teams, database-centric products, legacy systems integration, non-greenfield development, specific technologies, and practices like user-interface and experience design have all been addressed by innovative agilists.

Agile Experience Design: A Digital Designer’s Guide to Agile, Lean, and Continuous continues these trends by showing how experience design can be integrated into agile products and how designers can be integrated into agile teams. The book delves into the many facets of design and how they can be incorporated to create an engaging experience for customers, and brings the critical issues of design to designers and non-designers alike.

Because, to repeat Daniel Pink, “today we must all be designers.”

Jim Highsmith
Executive Consultant and author of the Agile Manifesto and
Agile Project Management

PREFACE

WHY READ THIS BOOK?

This is the book we wish we'd had when we were first introduced to agile methods. We want to show how design and agile are a natural fit together. How bringing together the people who build the products you design with the people who use the products you design will lead to better decisions and better customer experiences. We want to make the experience of designing in an agile environment easier and more compelling. How you no longer need to do all your work 'up front' but work collaboratively and continuously, adapting to the changes that are inevitable in the lifetime of a digital project.

WHO ARE YOU?

This book is primarily aimed at *experience designers* (and related roles) who work in an agile environment. It's for people who are striving to create excellent, customer-centric products and services yet want to be more adaptive, efficient, and collaborative. It doesn't matter if, like us, you have a long tenure as an experience designer and are just coming to agile for the first time, or if you're just starting out as an experience designer.

You'll also benefit from reading this book if you're a *project manager, product owner, developer, tester, or business analyst* working with experience designers in an agile environment. You'll understand more about what experience designers do, what they need, how to get the most out of them, where they fit into the process, and how to collaborate with them.

WHAT TO EXPECT

We're not reinventing the wheel. You won't necessarily find a whole bunch of new techniques. Instead, we've taken some best practises and used them to develop a framework and suggested approach for experience design in an agile context.

There are already plenty of books on agile methods—this isn't another one of those. Instead, we'll give a general overview of agile and then get specific on how to do experience design activities on an agile project. We'll look at the project life cycle and beyond, showing you how to apply experience design to an agile project.

We'll look at experience design as an essential component of a successful, agile, cross-functional project team where customer experience is critical to project or business success. We'll explain why roles are much less important than having the right skills on the project and explore how the different functional roles on a team can collaborate to create and deliver the project vision.

HOW TO USE THIS BOOK

Part One introduces agile—even if you think you know all there is to know about agile, it's still worth reading through to understand how and where experience design fits in.

Part Two is where we'll look at the project process and explore experience design techniques and activities in the context of the agile framework to help you deliver great experiences.

At the end of the book you'll find the Toolbox. Use this as a quick-reference guide to the tools and techniques and how you can adopt them in an agile environment. We hope to add to the toolbox over time on www.agileexperiencedesignbook.com. Let us know your favourite, tried and tested tools and we'll endeavour to share those too.

TIP

Throughout the book you will also see the lightbulb icon to indicate a tip.

TOOLBOX

When we refer to a method, technique, or activity in the main part of the book that is described in the Toolbox, you will see the tools icon.

IT'S A SHARED UNDERSTANDING

Things change. That's a key message in this book. There are a variety of ways that we can keep each other informed of changes to the thinking about agile and experience design. We'll publish and post updates at www.agileexperiencedesignbook.com as and when they occur, but we'd love to hear your stories and thoughts, too.

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SETTING THE SCENE 4

“COMING TOGETHER IS A BEGINNING. KEEPING TOGETHER IS PROGRESS. WORKING TOGETHER IS SUCCESS.” —HENRY FORD

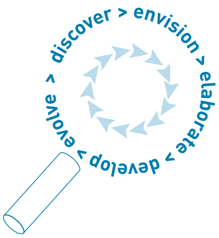
Let’s begin our journey into agile by understanding what makes agile different from other working methods and how all of this affects designers.

Success. Now there's an interesting word. By definition, success means the accomplishment of desired aims or goals. Achieving success is the holy grail of any business or project. The pursuit of success is the reason businesses invest time and money; it's the reason we take risks. This book is about design and we want to look not only at what makes design successful, but also how the involvement of designers on an agile project contributes to the overall project, and ultimately business success.

In this chapter, we'll take an initial look at agile project management, communication styles, rituals, processes, and environments and then talk about ways to improve the chances of both design and project success by integrating design and designers into the agile project framework.

AN AGILE EXPERIENCE DESIGN PROJECT

To get an idea of experience design on an agile project, let's think about what's needed to get us from the start to the finish. Creating a mental model for these activities makes them easier to understand and apply, so we've grouped them into the following five stages (4.1).



4.1 Iterative activities grouped together with the agile project framework.

PROJECT ACTIVITIES NOT DEFINITIVE GATES

There are no hard and fast rules about where you should start or when you need to move on to the next set of activities. In fact, you might repeat some activities in each phase, iterating, testing, and building on previous learnings. Rather than being prescriptive about how long and when, we recommend a more lean and agile approach. Just do what you need to do and then move on. If you find you're missing information at any given point, you can simply iterate through the activities again and build on your initial findings.

DISCOVER—ASK WHY

We look to gather customer, business, and technical insights that will provide us with the customer and business goals and identify opportunities for inspiration, improvement, and innovation. Often, you'll find stakeholders entering the process assuming they already know the answers to the *why* and *what* questions. Great if they do! Your objective is to get their thinking out on the table to be understood and agreed to by *all* the stakeholders. Equally, there may be some scenarios where nobody has really stopped to ask *why.* The idea sounds good on paper, but why should anybody care? Who are the customers and why might they use it? What do they *really* want and need? If we can't answer those questions, we're not ready to think about the *how.* There's no point in pulling together a plan if the fundamental proposition isn't going to fly.

Gather customer, business, and technical insights that provide insight into customer and business goals and identify opportunities for inspiration, improvement, and innovation.

ENVISION—ASK WHAT

Now that we've identified the customer and business goals, we can ask what we need to do to meet them. We don't want just one solution at the start. We're looking for a design vision, a direction for the product, with the full knowledge that this may change as the product evolves.

We place the customer at the heart of our design thinking to produce a multitude of ideas to create different opportunities.

We rapidly test these ideas with the people whose lives will be touched by the product we build for them. Those that are promising we'll elaborate on. Those that are duds we'll kill early and cheaply.

The key to our approach is not to spend months thinking. The market is moving on. The decision on how far to go will depend on the context and the maturity of the business. If you're a start-up, you don't have the luxury of testing ideas in a closed environment. You want to get stuff to market as soon as possible and adapt as you go. If you have an established product in an established marketplace, you may wish to build a prototype to test your ideas before committing to costly development.

ELABORATE—ASK HOW

With a design vision in mind we now look to do just enough to start development. We elaborate on the vision and plan what we'll need to do to get a product into production as quickly as possible. We'll agree on a first cut of the project scope: what the desired customer journeys are, sketches to illustrate screens, and user stories that are estimated and prioritised.

DEVELOP—LET'S DO IT

Agile software development is a social activity. No longer does the designer throw artefacts over the fence in the hope that they may be delivered; in the agile process the designer is a member of the team. She works closely with the business analyst to clarify the stories just ahead of when the code is written. Indeed, sometimes the developers start coding *before* the design is done.

We think about the critical path and, as in lean manufacturing, produce our design inventory just in time.

Clearly, we can't always work in this way; we may need to iterate our ideas before coding starts. Alongside the development iterations we're spiking design options, working up different options to test and validate in a safe environment outside the main development effort. Testing is key. Usability testing is not a formal procedure done at the end of the project; it's baked in from the start.

EVOLVE—CONTINUE TO IMPROVE

Once your product is in the hands of your customers, you can really start *learning* how to make it better. Up to this point you only have a bunch of hypotheses about how good it *could* be and how it *should* work. The idea is that you release the first cut of your product and then continuously enhance it, learning what works and what doesn't, and evolve the product to make it ever better.

Unlike the past, when software was brittle and the cost of change meant you had to get it right the first time, today software really is *soft*. Focus on what is important to your business and to your customers and get something to market fast and early, even if it's just a pilot beta with a small, invited panel of trusted loyal customers, and let real behaviour and customer feedback inform your decisions.

> IGNORANCE IS THE SINGLE GREATEST IMPEDIMENT TO THROUGHPUT.
>
> **—Dan North, Agile troublemaker, developer, originator of BDD**

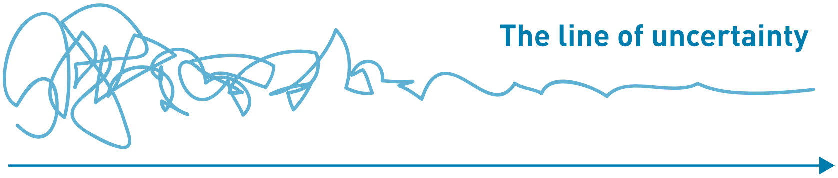
You then seek to continuously improve your product through a process of test and learn.

You can learn subjectively through usability tests, customer surveys, and the like, and objectively through analytics, split testing, and so on.

REMOVING UNCERTAINTY

Think of a time-boxed period where we do just enough to get the project started. Or changed. Or cancelled. We want to create models that we can test and validate at speed. We want to produce a design vision of where we want to go and elaborate on that vision to get us going.

When we start a project it looks something like this (**4.2**).



4.2
The line of uncertainty.

There's a line of uncertainty. In fact, we can only really be sure of three things:

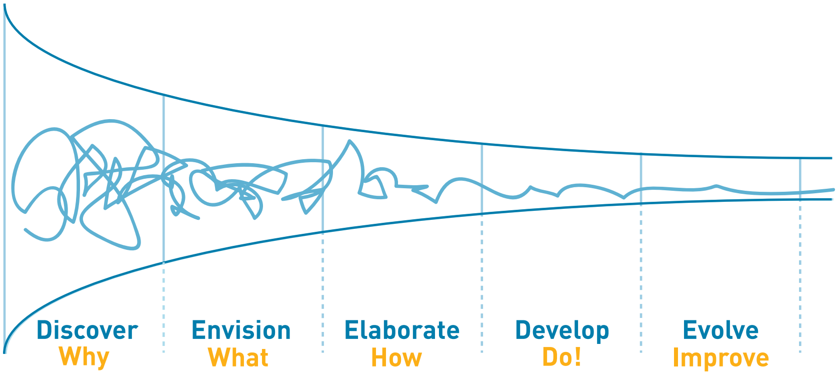
- Change is inevitable and things will go wrong.
- We can't know what will change and what will go wrong.
- When things go wrong or change is required, it will cause us pain and suffering.

Rather than being oblivious to these truths, producing a watertight vision that everyone believes will be delivered in its entirety, or trying to second-guess how things might change or what might go wrong, we should create an environment in which we can explore areas where we have the greatest uncertainty and try to mitigate the risks. Based on this principle we have two options:

- Do just enough *that is good enough* to provide us with a direction that we all agree is the right one based on the information available today.
- Be ready to kill the idea early or change, *pivot*, when the available information tells us this is the right thing to do.

When thinking about a project, we need to be mindful of those three questions—*why*, *what,* and *how*—before we *do* or *evolve*. So let's overlay those questions as a funnel on top of the line of uncertainty (**4.3**).

4.3
Using the model to reduce uncertainty through the product development life cycle.



Unlike the familiar approach to interface design, which can take a leisurely approach to *what* to build, and agile, which is quick to focus on doing the actual build, agile experience design brings together the best of these two approaches, providing a framework to remove uncertainty and do the right thing.

ACTIVITIES, NOT A PROCESS

We use this framework of *discover, envision, elaborate, deliver, evolve* to reduce uncertainty. Don't look at this as Gantt-chart-driven phases with deliverables due before the next phase can commence. These are activities to clarify thinking and product direction, not a prescriptive process. They may happen at the same time; you discover and envision new ideas as you develop. You may spend only a day in research, and a couple of days distilling your insights into a vision and elaborating requirements to start development. How you work will depend on the team and your environment. Take this framework as inspiration and adapt it to what works best for you, continuously improving as you evolve.

THE LAST RESPONSIBLE MOMENT

Whenever you start work on a project there are choices and options that you'll make on the way. Of course you want to make the right decisions. But the right decisions will be based on having the right information, and at the beginning of the project, it's unlikely this will be the case. It's easy to give yourself a false sense of security by basing your design work in detail on assumptions.

Here's an old joke: *A man is driving in the countryside and is lost. He asks a farmer for directions and the farmer says, "If I were going there, I wouldn't be starting here."*

People often think there is only a right decision or a wrong decision. What they miss is the no-decision option. Sometimes we don't need to make a decision at that moment. It is possible to defer it to a later time, when you'll know more and be able to make a more informed decision.

In his book *The Toyota Way,* Jeffrey Liker describes how Toyota developed the Prius. With a tight time frame and a vague goal of developing a "fuel-efficient, small-sized car," the team:

- Tested over 20 different suspensions simultaneously.
- Worked on 80 different hybrid engines before whittling them down to one.
- Started with twenty designs and then, through a design competition, selected two that were revised based on feedback before a final design was chosen.

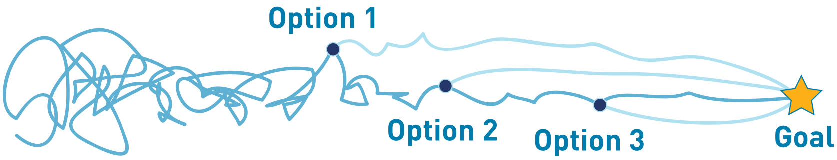
The point is that the team didn't fixate on one particular solution too early. In fact, they simultaneously pursued a number of different options to rule out the bad and go with the good. Sure, there was a short-term cost, but greater rewards were reaped later.

It's all too easy to decide on a particular direction and get fixated on it.

Thinking about our process we could continue to explore different options and only decide which one to take at the last responsible moment.

Beyond that moment the option expires (**4.4**).

4.4
Defer the decision until the last responsible moment.



This is one of the most fundamental concepts in agile experience design. Don't make decisions unless you have to. Don't spec out the user interface in detail until that detail is required.

AGILE TEAM STRUCTURE AND THE ROLE OF THE DESIGNER

As organisations recognise the advantages that agile can deliver, we're increasingly seeing agile and its derivatives as the delivery project management tool of choice. This is especially true in the commercial world of digital product development, where the promises of early working software and a flexible, scalable process that enables an adaptive approach to product development is very attractive.

The world of digital product and service development is one where customer experience is critical to business success. Despite this, the role of experience design has been somewhat underrepresented on agile projects to date. Agile project managers apply project patterns and team structures that are applicable for software delivery projects.

But when the focus shifts to be more experience-centric, those patterns need some adjustment.

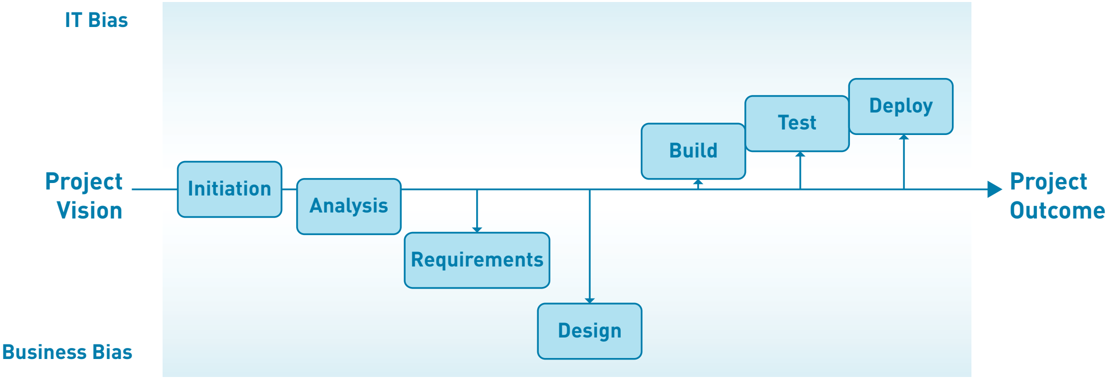
We're here to inject design back into experience-centric agile projects.

So let's have a look at the typical agile team and the role design plays in an experience-centric project. Rather than trying to inject designers into the team, we'll look at a couple of different project requirements and cross-match them with the applicable skill sets, to help agile project managers get the right people for the job. We'll explore options including "design pairing" to increase efficiency, quality, collaboration, and knowledge sharing, and then finish this section with a look at how to avoid some of the pitfalls of cross-functional teams.

SILOED FUNCTIONS VS. CROSS-FUNCTIONAL TEAMS

Most organisational structures are made up of functional silos, and lines of reporting follow functional expertise and authority. In general, there are only two opportunities for cross-functional collaboration. One is at the very top, where the heads of each functional division collaborate on the strategic direction for the organisation. The other is on projects, where expertise from each functional area is required to contribute to project success. However, even within projects, prior to the advent of agile, each phase was assigned to separate functional group of specialists and generally executed and delivered in sequence.

One problem with this approach is it can introduce functional bias. This is where a functional team, undertaking their functional project phase, pulls the project in a particular direction relevant to their area of expertise, without considering other functional areas. The subsequent function receives the outputs from the previous phase, and with limited appreciation for the previous functional expertise, then pulls the project in a different direction, adding alternative bias toward their own functional area (4.5).



4.5
Potential functional bias on a sequential project.

The best way to avoid this situation is for cross-functional teams to collaborate to create a solution. Agile uses the cross-functional team approach primarily because it offers many advantages, including:

- **Efficiency:** A collocated team comprising functional experts collaborating to reach a common goal will succeed far more quickly than a team separated by function, acting in a sequential manner.
- **Knowledge sharing:** The communication, team learning, and knowledge sharing process is much more efficient in a cross-functional team. Furthermore, members of the cross-functional team then cross-pollinate knowledge and communication with their original functional group.
- **Innovation:** By bringing together people from diverse backgrounds you're providing the stimulus for multidisciplinary thinking, a potential catalyst for increased creativity and innovation.
- **Holistic success:** A cross-functional team is more focused on a common directive rather than siloed functional success.

However, bringing a bunch of people together from different backgrounds, disciplines, and areas of expertise and just expecting them to get on with it, get on well, and be successful is a tall order. A cross-functional team needs both a strong leader (not manager) and members of the team to be self-directed. To be self-directed, roles and responsibilities need to be clear and individuals and the team need to be empowered to make the right decisions at the right time. They also need to share a common directive or vision.

THE TYPICAL AGILE PROJECT TEAM

In most books about agile you'll find an amorphous description of the agile project team. This is because agile is less prescriptive about who does what and is more concerned with getting the job done. In his book *The Agile Samurai,* Jonathan Rasmusson suggests that "roles blur on agile projects and they are going to be expected to wear many hats…there are people who know what needs to be built…and people who can build it…agile is less concerned about who plays what role and more worried about the right roles being played." [1]

It's much less about roles and much more about activities and the appropriate skills to do the activities. This means that a developer can write tests or undertake analysis of a user story with a product owner without other team members getting territorial. In common practise though, for reasons of efficiency, individuals stick to the activities that they have expertise in. But when a blockage in the delivery pipeline occurs, team members can apply themselves to other functional activities with which they are not traditionally involved.

THE ROLE OF THE EXPERIENCE DESIGNER ON AN AGILE PROJECT

The responsibility of an experience designer (or design pair) on an agile team is to create the design vision and drive the design direction for the experience that a customer will have when engaging with a product, service, or whole system.

So what do all these cross-functions and blurred roles mean for design and designers? Well, in the same way that a developer still writes code, and analysts still analyse information, designers still design. It just means that potentially, where time and skills allow, designers can also do other activities and other team members can get involved in some aspects of design. But don't let this put

[1] Rasmusson, J. The agile Samurai, The Pragmatic Programmers, 2010.

you off. This doesn't diffuse quality or undermine the expertise of the designer; we still have a very important job to do. Let's look at that in a bit more detail.

The responsibility of an experience designer on an agile team is to work alongside the product owner and business analysts to create the design vision and design direction for the customer experience and define what will be built. The designer also works alongside the developers and testers to figure out how it can be built. You have the whole team or specific members or functions within a team who can input to design and help with problem solving.

Once the design vision is drafted, designers are then responsible, again with other team members, for the design detail. With a design vision in place, the details can emerge throughout the life cycle of the design development. However, and this is where we diverge from some more purist views of agile, design detail should not be emergent without a design vision to hold it all together. It is absolutely essential that time is spent before development of the experience layer on thinking holistically about the design vision.

Create a design vision that will provide focus for the rest of the design activities and guide design detail as it emerges.

SKILLS VS. ROLES: TIPS FOR PROJECT MANAGERS

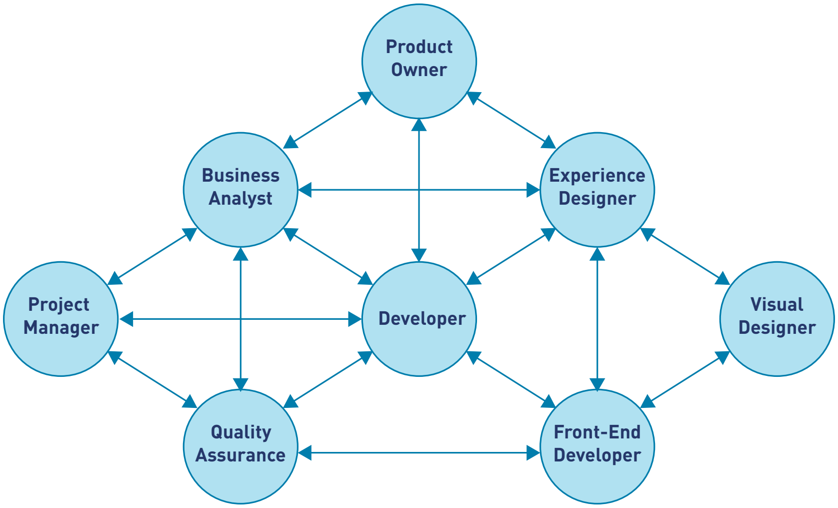
There are a number of distinct skill sets that come under the umbrella of *design*; non-designers might be forgiven for thinking that all designers do every sort of design. However, that is not the case and a project manager who makes that assumption will be in as much trouble as one who believes that all developers know how to code in Java.

The best way to avoid problems and make sure that the team have the correct competencies and capabilities is to think about the skills needed rather than thinking about the roles. What's the difference? "The designer" is a role, but there are many different areas that a designer might specialise in (4.6).

content analysis
interaction design
user research
rapid prototyping
ethnographic research
user-experience design
product design
guerrilla testing
sketching
usability testing
user profiling
ideation
collaborative design
process flows
information architecture
visual design
competitor analysis
GUI design
service design
design thinking
customer journey mapping

4.6
Experience design skills.

You can see from the word cloud that a broad range of skills is available, and even if you don't necessarily understand what each of those skills involves, you can probably appreciate that it's hard to find all of those skills in a single designer. Some of the skills listed above are not exclusive to designers either. Talk to all the people on the team to see who has skills and experience in particular areas (4.7).



4.7
Agile team roles.

GENERALISTS VS. SPECIALISTS

Which is better: generalists or specialists? The answer depends on the breadth and depth of the problem. The deeper the problem goes into a specific area, the more it requires specific skills and the more you're likely to need a specialist in that area.

A specialist is someone who concentrates primarily on a particular subject, activity, or field, and his expertise is based on years of experience dedicated to that particular cause. A generalist is a person who has competencies in one or more fields.

In his book *Ten Faces of Innovation,* IDEO General Manager Tom Kelley describes "T-shaped individuals," who he says, "enjoy a breadth of knowledge in many fields, but…also have depth in at least one area of expertise."

Pabini Gabriel-Petit, Founder, Publisher, and Editor in Chief of UXmatters, provides the following definition: "User experience design takes a holistic, multidisciplinary approach to the design of user interfaces for digital products. It integrates interaction design, industrial design, information architecture, visual interface design, user assistance design, and user-centred design, ensuring coherence and consistency across all of these design dimensions. User experience design defines a product's form, behaviour, and content." And he goes on to suggest that "a UX designer is, by definition, one example of a T-shaped person."

Whether you decide to plug for a specialist, a generalist, or a T-shaped person the key is to match that person's skills with the understanding of your project's requirements. If you have limited understanding or limited budget, then the safest option is to find a generalist and set his expectations. A good generalist will let you know if additional expertise in a particular area is needed and will even help you build a case to justify the additional resource if necessary.

GIVE UP CONTROL TO GAIN CONTROL

Designers are used to controlling all the aspects of a design, from the start of the design phase to the end. Since the dotcom era, some of the more enlightened organisations have recognised that it is not enough to do design in a vacuum. Instead, they recognise and embrace the notion of customer-centred design: the idea that the design should be focused on the customer's wants, needs, and context of use. If the process is truly customer-centred, then customers should be involved throughout the design development. From the outset, where you spend time understanding the customers' world: who the customers are, what they do and how they do it, to getting them involved in collaborative design or user testing throughout the process.

So the point here is while it's good to understand the users of the system and their context, it's equally essential to add the business and technology concerns into the mix too. Now we're not expecting that on top of being experts in design that designers should also become business experts and technology experts. We are, however, advocating that designers collaborate with business representatives and developers throughout the project life cycle. This collaboration, together with the continued application of user-centred design methods will help to ensure that any designs deliver business value, provide an engaging and desirable experience for the customers, and are feasible from a technology point of view.

It's not enough to just engage with these different stakeholder groups at the onset of the project; you need to be in constant consultation with them throughout the project. As you know, things change frequently in design, and so too they change frequently in business and technology. The design needs to be continuously recalibrated to reflect the fluid nature of the age in which we live.

AVOIDING PITFALLS: TRIBAL BEHAVIOUR

Projects would be great if it weren't for the people, right? Team dynamics can make or break any situation and all the benefits of collocation definitely ring true when the team members play nicely together. However, for teams to work well together, the individual team members must all contribute to or buy into the vision and feel that they are making a worthwhile contribution that is valued by the other team members.

Having a collocated team can help to break down tribal behaviours associated with functional groups, as the functional group identity is not preeminent in a cross-functional team. However, to avoid tribal behaviour it is important that each of the functions is represented and not disadvantaged. DK Matai, writing about digital tribes, says:

> "The predominant characteristic of tribes throughout time is the need to share and to communicate ideas, thoughts, observations and views."[2]

TRIBAL IDENTIFICATION

Janelle McGuinness, Head of eBusiness at an international direct retail bank

By nature, individuals have a "tribal" identification with their particular discipline and are often protective of the teams they have come from. So when they are thrown into a new cross-functional team they may not fully appreciate the skills and perspective of other specialists. Whilst each team member can provide opinions and suggestions, to keep delays to a minimum it should be clear who has responsibility for decision making in particular areas as well as deciding when to escalate, and to whom. Ultimately, making the team responsible for their collective success, and rewarding the team—not individuals—helps to ensure the teamwork necessary to achieve the desired outcome. ■

Tribal behaviours can still occur where team members are in a functional minority and escape back to their home tribe whenever they can for a sense of belonging. Or the opposite can occur when team members are in a functional majority and form a clique to the exclusion of some of the minority functional team members.

While team dynamics are ultimately the responsibility of the project manager, it's obviously the individual team members who contribute to the dynamic. Be mindful of tribal behaviours and avoid reverting to tribe when things don't quite go your way.

[2] Digital Tribes: Rising Asymmetric Power. DK Matai, Chairman, Asymmetric Threats Contingency Alliance (ATCA).

THE AGILE PROJECT ENVIRONMENT

This chapter's opening quote perfectly summarises the work ethic that we want to explore in this chapter. Henry Ford is of course famous as the proprietor of Ford automobiles, but he also invented the assembly line used in car manufacturing. The assembly line is an excellent example of essential teamwork, where each member contributes to the delivery of the vision. But almost as important as teamwork is an environment in which the team can work together.

A SHARED WORKSPACE IMPROVES INTERPERSONAL AND PROJECT COMMUNICATION

We have already said that to improve chances of success design should not happen exclusively in one phase, or be performed exclusively by designers. We also recommend that design not be done exclusively in a creative environment. To make design inclusive, integrated, and continuous it must also be collaborative and therefore the designers need to be collocated with the rest of the team. A face-to-face conversation is usually the most efficient form of communication, especially when time is of the essence. Therefore, project communication is most efficient when the team members work in a shared space.

Where teams are collocated there is no need for complex project reporting tools as the wall becomes the project dashboard and the project repository. Design artefacts work best when they are shared and understood by the rest of the team. Rather than burying design detail in documents that no one ever has time to read, design artefacts in an agile environment are displayed on the wall as a constant visual prompt to the whole team.

WHERE DOES A PROJECT TEAM CALL HOME?

Life on an agile project can be quite different from that of other project structures. To facilitate “individuals and interactions over processes and tools,” it is preferable to have shared project space where the team members are collocated. Ideally, this is in a single space or a group of spaces in close proximity.

COLLOCATION IS KEY

Collocation is a critical success factor on an agile project. It makes sense for functional teams working on the same project to sit together. So of course it’s going to make sense for cross-functional teams who are working on the same project to sit together. The key benefits are efficiency and quality of both communication and problem solving.

Collocation is key for cross-functional teams delivering a project together. Benefits include efficiency and quality of both communication and problem solving.

To be truly effective, collocation requires a certain amount of discipline from the team members. Complex thinking takes much longer when the thinking process is constantly interrupted or there are too many distractions.

Here’s a summary of the key benefits of collocation of cross-functional teams:

- Closer physical proximity
- Shorter feedback cycles
- Less time spent traveling between floors and sites
- Less time spent in less frequent but longer-duration meetings where individuals benefit from only a small proportion of the total meeting time
- More rapid establishment of team building, familiarity, and trust
- Cross-functional problem solving, rather than solutions that are biased toward one particular functional area
- Tribal behaviours break down where functional groups are not prevalent

DISADVANTAGES AND PROBLEMS WITH COLLOCATION

We don't want to be idealistic. Collocation of cross-functional teams isn't for everyone or every project, so what follows are some of the main issues that come up and ways that you can solve them.

SEPARATION FROM FUNCTIONAL TEAMS

If an individual has a stronger sense of belonging to a functional group than to the project team, especially if he is in a minority on the project team, he may be reluctant to separate from the functional team. You won't solve this problem by decree; instead, acknowledge the importance of the functional tribe and allow the individual the opportunity to reconnect with his functional group. This could mean letting him attend his functional group weekly meeting, which was established long before the project team, or allowing him one day a week to work with his home-team environment to reconnect and reestablish his position in the group. Be cognisant of the fact that if the individual is having tribal issues, it might have nothing to do with the project and everything to do with his own tribal politics. He might feel that his position or value will be undermined by sustained periods of absence from the tribe.

WORKING ON MULTIPLE PROJECTS AT ONCE

Where certain capabilities are in scarce supply or where a particular functional role is not required full time on a project, some individuals may need to work on multiple projects simultaneously. Regardless of project utilisation though, individuals still need to feel that they are making a worthwhile contribution and that their contribution is recognised by the team. Simple gestures such as confirming or acknowledging a team member's attendance prior to his arrival on the project site are worthwhile. Arrange an adequate space, even if it's a "hot desk" for him to work at while he is on the project site as opposed to having him crash at someone else's space. Confirm his requirements prior to his arrival—there's nothing worse than having a limited window of opportunity and then finding that other essential contributors are unavailable.

RESISTANCE FROM THE FUNCTIONAL GROUP MANAGER

There will always be the insecure middle manager who thinks you're trying to poach his team and who doesn't understand the need for collocation. First try reason and logic. If that doesn't work, try to appeal to his better nature and reason that it's necessary for the greater good of the organisation and its customers. If all else fails, then escalate. Appeal directly to the manager's direct boss. If you've gone as high as you can go and he's not giving in, you've probably got bigger problems than getting individuals to collocate.

WHEN COLLOCATION IS NOT POSSIBLE

Collocation is ideal but not always possible. Just because you can't collocate the entire team doesn't mean that you should abandon agile. You can adapt and adopt and do the best you can with the opportunities and constraints that you have. There are many reasons why you might need to work in a more distributed fashion. It could simply be that parts of your team (functional areas, for example) are located elsewhere in the region, country, or world and the cost-benefit ratio of moving the teams to a single location is too high.

Again, the wheres and hows of collocation are probably the primary concern of the project manager, but in cases where you're the person or part of the team who cannot be collocated, here are some ideas to make your project life easier:

- **Up-front collocation:** If you can't be there for the whole of the project, is it possible to attend the initial part (inception) where the team come together to build a shared understanding of the project? If you can't have the whole team attend the inception, can you delegate to one or two individuals who will be responsible for imparting the key messages to the home team on their return?
- **Part-time collocation:** If you can't be there for the whole of the project because you have commitments elsewhere, can you consider part-time collocation? You can agree on the frequency and duration of your involvement with the other team members who need your input and the project manager.

- **Videoconferencing:** If you can't be there in person, can you attend remotely via videoconferencing? You don't need any fancy equipment; a free Skype account and a webcam work quite effectively.
- **Instant messaging:** One of the key benefits of collocation is being able to get an answer from the team when you need it. If you can't be there in person, consider using the next best thing, such as instant messaging. Don't rely on e-mail as it can take too long to get an answer, plus you can't always see from e-mail if a person is actually available. If you have a complex issue, you can use instant messaging to invite a team member to attend a videoconference.
- **Collaborative tool sets:** We've spent a fair chunk of this chapter talking about the collaborative workspace and the value of the visual wall. This is not such a great metaphor if you have distributed teams. There are any number of virtual collaborative tool sets available, such as Mingle from ThoughtWorks.
- **Collocation at each site:** Where you have distributed teams it still makes sense to have team members collocated on each of the project sites so they have the benefit of working together.
- **Adjusted work schedules:** You might need to consider adjusting the work schedules, especially if your distributed teams are in different time zones. This will ensure that no one team is persistently disadvantaged.

Stick with agile practices—you might not be collocated, but it shouldn't stop you from adhering to some of the other agile practices and tools such as using a card wall and daily stand-ups.

AGILE PROJECT COMMUNICATION

Communication, as with design, doesn't just happen by chance. Agile places emphasis on verbal communication and interaction rather than documentation. Therefore it's essential that everyone on the team understands the communication objectives and protocols. It's important to be clear about how each function and individual is expected to interact, and deliver and communicate outputs to the team and the wider business.

Agile takes a no-surprises approach. The general principle is when something needs to be said, say it. It's better to say it when you see it, rather than potentially compounding an issue by ignoring it and hoping it will go away. The earlier a possible issue is dealt with, the better the chances of recovering from the situation with minimal impact. As a result, there are a number of communication protocols that agile project teams use to provide ample opportunity for insight into the team and individual progress:

- **Feedback** is a way of communicating with individuals on the team to help them improve competency or social interaction. The structure is based on Pendleton's rules[3]—what was done well, what was not done so well, and what could be improved. The main objective is to provide the opportunity for growth in a positive and constructive manner.
- **Stand-ups** are a team communication protocol used within the development phase. They are short, succinct daily meetings that keep the team informed of progress being made, current and intended activities, and any roadblocks.
- **Showcases** provide the opportunity to demonstrate and get feedback on the working software at the end of an iteration or sprint. Showcases are often attended by stakeholders from beyond the core project team.
- **Retrospectives** are the team version of feedback. They provide a measured forum for looking at aspects of the project that went well, those that didn't go so well, and those that might be improved.

TEAM COMMUNICATION AND SETTING EXPECTATIONS ABOUT DESIGN AND AGILE

Designer's perspective: If you're a designer who has never worked on an agile project before, it's worthwhile getting to know the project manager before you start. This is your opportunity to let the project manager (PM) know that you're new to the agile environment and that you'd like to know generally what's expected of the project team members. You might discover that you're not the

[3] Pendleton D, Schofield T, Tate P, Havelock P. The Consultation, An Approach to Teaching and Learning. Oxford: Oxford Medical Publications, 1984.

only newbie. Often, a project team consists of members with varying degrees of agile experience and that should be of little concern. If the PM is aware there are agile newbies on the team, then he can dedicate some time to covering the process and the protocols. He may choose to run informal agile coaching sessions, or even assign an agile coach to the project to help the newbies get up to speed.

While you're getting to know the PM it's also worth asking what experience he has with agile projects with a design component and how he has integrated design with development. If the PM has only worked on delivery projects that did not have an integrated design, ask if he already has a plan for integrating design activities and design tasks and, if not, if he would be willing to work with you to make a plan. If the PM does have design and agile project experience, ask him how he intends to include design activities and tasks in the plan. Allow him time to explain the process and make notes about any areas of concern. At the end of his explanation relay any concerns you might have about the process, pointing out the possible impact to the project if the concerns are not addressed. Again, ask if he would be willing to work with you to address the concerns and adjust the plan accordingly.

Project manager's perspective: If you're a project manager, spend some time getting to know your designers and understand what their agile experience is. As with all functional team members, if the designers have only worked in a waterfall-style project environment, the agile framework for design might take some getting used to. You make need to make provisions for agile training or for an agile coach to work with the team.

If you haven't had experience with design on an agile project, ask if your designers have. If they have agile experience, take the time to understand what they need and what specific design tasks and activities they need to do, but also look out for the other project activities that will either affect design or that will be affected by design.

If neither you nor the designers have had agile design experience, take some time to understand the tasks and activities that the designers consider critical and invite them to help you plan how to incorporate them into the project.

Obviously you have bigger concerns than just the designers on the team, but it's certainly worth canvassing the other roles to see who else has worked with designers on an agile project. Run a mini-retrospective with the designers to uncover what worked well in the past and what didn't work well. By identifying pains early on hopefully you can avoid problems and functional conflict biased by a poor prior experience. Look for opportunities to get cross-functional team members working closely together to improve collaboration. It's essential that business analysts work closely with the designers to uncover the user stories and the narratives.

At the beginning of the project you'll need to communicate with the entire team about everyone's roles and expected responsibilities. Let them all know how you expect design to be integrated and how collaboration is everyone's responsibility. The project will suffer if even one of the functional representatives doesn't pull his weight. Let the project team know how design tasks will be tracked and how they will feed into development.

Also communicate the project plan, highlighting to the entire team where functional activities should occur so that the whole team can decide what is relevant to them and what they need to do about it. So, for example, a lead developer might decide that he doesn't need to attend the wider business design review meetings, but he might want to attend the customer-review planning sessions so that he can agree to the scope of development work for customer testing.

AGILE PROJECT MANAGEMENT

There are many books and training courses on agile project management, but to our knowledge there are none that address the management of design and design activities on an agile project. This is a major oversight in our opinion, because good design does not happen by accident. Design needs to be baked into the process, thought through, planned, and managed.

Traditionally, the designer or design team takes care of the design management, where design activities are contained in a design phase. When design is tightly integrated with delivery, as it should be on an agile project, then the agile project manager must be much more actively involved with design management. Where this is not the case and design is treated separately to the rest of the team, design can become a bottleneck because design and development are working to different priorities and schedules.

Agile is quite a different way of working for designers, and integrating design with delivery on agile projects is a fairly immature process for agile project management. Therefore, there needs to be a bit of give and take on both sides for it to work.

MANAGING DESIGN AND DESIGNERS: TIPS FOR AGILE PROJECT MANAGERS

If you're an agile project manager, or even a lead designer on a team of multiple designers, you'll need to help the designers and other team members understand the collaborative design approach, collocation, and communication methods. Expect some resistance to start with, as humans by nature are opposed to change. However, the key to successful adoption of this new way of working is to offer it as a flexible framework, then any good, self-organised team can adopt and adapt the approach that is best suited to them and to the project.

To determine whether you have the correct design resources for your team, you need to consider a number of factors, including:

- Is the user interface/customer experience critical to the success of the project or organisation?
- Is the product or service well-established in the marketplace?
- Is the brand well-established in the marketplace?
- Will the product/service attract high traffic?
- Is the product being released into a mature market, with lots of competition?

The more questions that you answer with yes, the more you need to increase the volume of design effort. You also need to understand what kind of designers you need on your team.

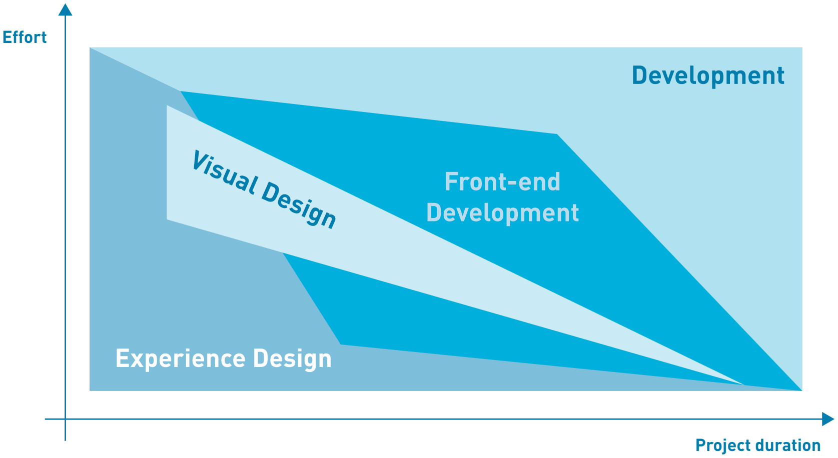
You'll need to ascertain what the designers know about the agile process, tools, and techniques, and, if necessary, run some introductory sessions. You'll need to help them understand how they fit into and feed the development life cycle.

More importantly, you'll need to help them understand that design is no longer all done up front. This may well be one of the biggest challenges for the designers: working out how to create a design vision and then letting the design vision emerge throughout the development process.

SUPPLY AND DEMAND

Once you've determined what kind of designers you need, you need to think about when to get them involved and for what duration. As a general rule, you'll probably need more design involvement at the beginning of the project than you will at the end. This is not to be confused with big, up-front design. The difference is that there will be a finite number of design challenges on any project, and once the solutions for the design patterns have been established, the details can be applied by the business analysts and developers as the user stories are played out (**4.8**).

4.8
Experience design involvement on an agile project.



Ideally, the lead experience designer should be on the project from the start, especially where customer experience is critical to success. However, you probably won't need to introduce some of the other design resources until later on. Visual designers may not need to get involved until the general experience design direction has been set. Equally, front-end developers may not be needed until after some of the initial visual design work. Although the front-end developers can start the HTML structure in advance of any CSS and visual presentation layer work, and they can also help test design concepts in presentation layer code, so it can be fruitful having front-end developers around earlier.

WHEN YOU NEED TO BRING IN DESIGN HELP

Cross-functional teams are all well and good, but what do you do when you're lacking capability in a particular functional area that is essential? As with all projects you have to beg, borrow, steal, or buy it. However, agile is such a different way of working that it can be difficult to plug people and resources into the process. Most of the agile project pains we hear about involve agile teams having to work with service providers who are not agile. Incompatible methods and processes can create a world of hurt for everyone.

If there's no design capability within the project team and you need to outsource it, choose a design organisation or individual who is flexible. It doesn't matter if they don't have agile project experience, but they must be willing to work on-site with the project team, collaborate to develop the design throughout the process, and produce design artefacts that are lightweight and facilitate conversation, rather than rely on heavy documentation. Determining the design credentials of your design supplier is essential, but you also need to consider the process and cultural fit. Here are some things to consider:

- Talk to the designers/design manager before they start on the project to get an understanding of how they like to work.
- Ask them if they are willing to collocate; if not, think very hard about whether they are the right supplier.
- Ask if they intend to work on your project full time, and if not, how they will ensure their availability during critical decision-making points.
- Ask about their experience collaborating with business stakeholders and developers throughout the process. If they have no experience, probe deeper about their willingness to collaborate.

Don't be convinced by suppliers who tell you that they need to work at their offices because they have the kit and the support they need. No matter how great the intent at the start of the project, the relationship will break down over time. Designers who work off-site tend to want to produce pixel-perfect designs before revealing anything. No matter how quick they are, it's still wasted effort producing pixel-perfect designs if they are wrong. It is much more efficient to work in a low-fidelity way to start with and to get frequent feedback about work in progress so that the designer can adjust and adapt as he goes. Also, it takes much longer and much more effort to send an e-mail with attachments and words to explain the design intent than to have a quick face-to-face conversation.

The same can be said when you source design capability from within your organisation. You really need the designers to collocate with the project team for the duration of their involvement. If you get any resistance, remind them that you're not asking them to make a permanent move away from their department. Most designers understand the benefits within a very short period of time.

MANAGING DESIGN AND DESIGNERS: TIPS FOR DESIGNERS ON AN AGILE PROJECT

Agile project managers are not the taskmasters and shepherds that other project managers need to be; they are more like leaders. Agile projects are much more self-directed and agile teams are self-organising. An agile project manager does not need to assign tasks to team members because they can do that for themselves when they are ready to work on the next thing. Instead, the role of the project manager on an agile project is to:

- Inspire and motivate the team and to help them focus on the project vision.
- Remove blockers or anything that is impeding the progress of the project.
- Ensure that communication is free-flowing.
- Promote the use of the agile principles, tools, and techniques.

As a designer, the project manager should become your new best friend because he can help you communicate to the rest of the team about the value of design and how it affects the success of the project. But before he can do this, he needs to understand the value, the activities, and the effort required, and you need to help him with this. Get to know your project manager and understand what experience he has had in managing agile projects with a design component.

If you're new to agile and the PM has experience managing design on agile projects, talk to him about his previous projects to understand where design activities fit in and how to work collaboratively with analysts and developers.

If you're new to agile and the PM has no experience managing design on an agile project, talk to the PM about what you aim to achieve with design and how you have worked previously. With his agile experience and your design experience, you should be able to come up with a plan that will work for you both. You'll have to adjust and adapt; try to be flexible and think creatively about the design process. Remember, you don't have to compromise on design quality because you're changing your approach. The more you can help him understand about design and what you need, the more he can help you and help the rest of the team help you.

If you're experienced in design on agile projects but the PM is not, then simply help him understand what has worked well in the past and what did not work well. Tell him about some of the problems you had that blocked your progress so that he knows what to look out for. If the project manager is aware of potential issues like this he can make it happen, which takes some of the pressure off you.

If both you and the PM have experience with design on an agile project, then happy days. Well almost—it's still worthwhile having a conversation and making sure that you have matching expectations because, as we've mentioned, there is no one-size-fits-all agile process. Compare notes about what worked well in the past, what you would like to keep doing, and what that caused problems.

TIP

Ask the PM to help get content from outside providers to populate a design. This helps everyone.

DESIGN ACTIVITIES TO BUILD INTO THE PLAN

These are design-orientated activities that you may wish to build into the project process and planned for:

- **Regular end-customer feedback** is about engaging with end customers to find out what's not working in the design so that designs can be adjusted before they are developed. Techniques range from "guerrilla testing" to formal lab-based testing, and the time and effort increase accordingly. Ideally, feedback should happen as frequently as possible, such as once an iteration for one to two cycles, or multiple times an iteration where the iterations are longer.

- **Regular feedback from business stakeholders** who may or may not be directly involved in the project team. This gives everyone who has a stake in the design the opportunity to give input and feedback about the designs. These meetings will likely need to happen once or twice within an iteration.
- **Frequent interaction with developers** to ensure that the design ideas are feasible and also to get input about what the technology can do to enhance the designs. These need not be formal meetings but the conversations need to happen frequently.
- **Frequent interaction with business analysts (BAs)** to ensure that the designs cover all the user stories and that the user stories describe the full extent of the design. Again, this is not a formal session, but conversations need to happen regularly—multiple times a day.
- **Interaction with QAs** on the project to make sure that the tests reflect important interaction, visual design, and usability criteria too.
- **Cross-functional conversations** can encompass all the points listed above. When BAs, designers, and developers all need to have conversations with the business, it makes sense to have these conversations once and have cross-functional input. Discuss with a representative from each functional area to find out the most efficient way of discussing areas of common ground.

IN SUMMARY

In this chapter, we looked at the agile experience design project process and how design and designers fit in. We looked at what this means for designers who are new to agile, and for agile project managers who are new to design.

COMING NEXT

Now that you have a high-level understanding of the agile process, we're going to look at the specific activities you need to do to get ready to start.

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