

The User Experience Team Kit

Hiring A UX Team & Incorporating User-Centered
Research & Design Methods Into Your
Organization's Processes

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About

I originally created this document as a guide for product management and development teams that wanted to incorporate user experience research and design practices into their processes but weren't sure how to do it.

Over the past 10 or so years it's grown to cover new areas including UX and content strategy roles, as well as descriptions of how UX contributors function in agile software development environments.

The most recent update includes minor corrections, updated salary information, and the addition of other publicly-available UX resources.

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Paul Sherman

August 2020

Introduction

This document is a reference for organizations that wish to learn more about incorporating user experience (also known as user-centered design) practices into their product ideation, design, and development processes.

The primary audience is people who are able to drive change in their organizations and have the authority to support those changes with allocation of resources. Typically, these are executives, vice-presidents and directors of product management, marketing and engineering.

The first section is intended to help readers who are interested in gaining a high-level understanding of user experience research and design, or who need UX budget and resource information. Later sections provide additional information about hiring and organizing UX contributors, and how to best utilize UX contributors in the product development lifecycle.

This document provides the following information:

- An overview of UX methods and techniques, and how they are incorporated into UX teams' processes.
- A description of how UX'ers fit into the product/software development lifecycle.
- A detailed breakdown of what it costs to implement a UX team in a single product organization.
- The UX team engagement model – that is, what services the team provides to the organization and when.
- Descriptions of the difficulties typically encountered when an organization decides to build a UX team.

Below is a summary for those who wish to acquire a very high-level understanding of what it takes to start up a UX team:

- Hire at least 3 direct contributors – one user researcher/usability analyst, one interaction designer, and a visual / front end designer. You may need more designers, depending on the size of your product line.
- If you can beg, borrow or steal a content strategist / information designer, even better.

- Last but not least, hiring a manager or a director is also highly recommended. They can advocate more effectively for user needs at the leadership level than a typical contributor can.
- Budget for between \$10,000 and \$60,000 USD in research expenses, depending on the size of your product team and how many products you support.
- You can spend as little as \$1,000 or upwards of \$75,000 USD on usability and user research equipment. In any case, it's better to build the team and budget the research dollars first.
- Be aware that you will have to change your organization's ideation, design and development processes in order to successfully implement user experience practices. If you don't explicitly make room for design research, ideation and iteration in your processes, you will not be successful in implementing user experience practices.

1. About User Experience Design

1.1 What is User Experience Design?

User experience research and design methods and techniques grew out of the fields of human factors and human-computer interaction. From the post- World War II days, researchers and practitioners around the globe focused on applied problems typically found in military, industrial, and commercial projects.

With the growth of the internet, World-Wide Web, and “smart” mobile devices, industry has come to refer to practitioners as user experience (UX) researchers and designers.

1.2 Three Characteristics of UX Processes

The UX approach to product ideation, requirements identification, design, and development has three main characteristics:

- Direct user input
- Defined design stages

- Design iterations

Direct User Input

The first characteristic of user experience design is the incorporation of direct and frequent input from users throughout the development cycle. A critical distinction between the UX research approach and other methods of gathering user input is that effective UX research methods involve observing and understanding users' actual behavior.

UX'ers do this by watching real users both in the field as they perform their actual work tasks, and in lab settings where they perform tasks using prototype or mockup versions of a design. Using field-based observation and in-lab task performance, UX practitioners uncover users' motivations and objectives, learn how they conceptualize and think about their tasks, identify the terminology they use, and discover the workflow they follow.

Field-based observation is often referred to as "contextual inquiry" or "customer observation." The data this technique generates is particularly useful to product managers as they plan for new products or new versions of existing products. It provides rich, qualitative information about people in the target market that cannot be derived solely from survey research or focus group sessions. In-lab task performance on a mockup or prototype is typically known as a "usability test," although some would argue that it's more accurately thought of as a form of design exploration and validation.

With this technique, users from the target market are asked to use a mockup or prototype of the design to accomplish tasks they typically perform. As the participants perform the assigned tasks, the UX researcher compiles a detailed record of what each participant does with the application - how they accomplish their tasks, as well as what tasks participants would like to accomplish. When carried out with as little as five participants per distinct user type, UX contributors and their teammates can discover what's wrong with a design (as well as what's right with it) and identify ways to fix or improve it.

This method is superior to survey- or focus group-based methods of gathering feedback about designs. Why? Because in survey- and focus group-based design research, peoples' attitudes and responses to questions are notoriously unreliable. In general, people unknowingly generate inaccurate explanations for their behavior and attitudes. Also, their stated reasons for liking or disliking a product often run counter to what their actual behavior reveals.

Therefore, when conducting user research and usability testing you should trust what people do over what they say. You should observe and analyze participants' actual behavior rather than their attitudes, to guide and improve the design. That being said, it's often useful to dialog with people during a session to understand what they're trying to accomplish. Just don't ask them to design a feature. Users are not designers. But people have needs, and we as UX'ers know how to design to meet those needs.

Defined Stages of Design

A second key characteristic of UX research and design processes is that designs are created in specific stages, moving from more abstract and conceptual issues such as terminology, workflow and navigation, to more concrete issues such as screen layout and control choice.

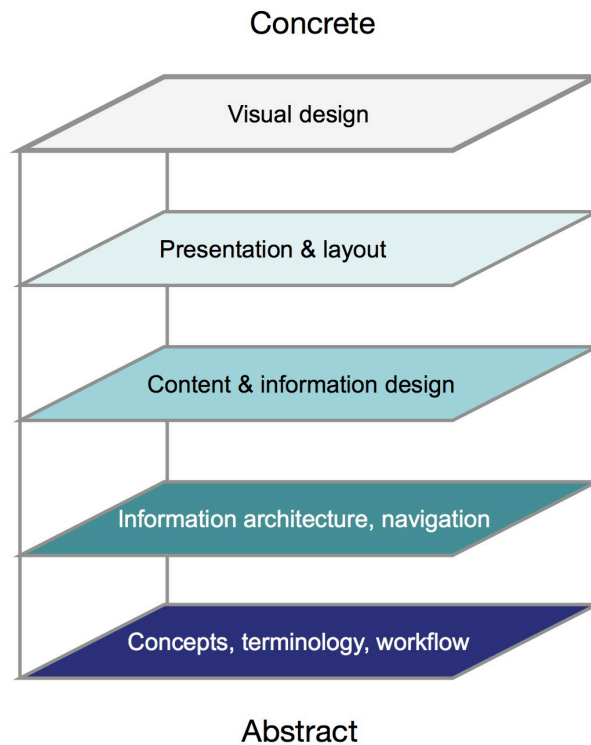
In the early stages, UX contributors employ a number of field-based and lab-based methods to arrive at conceptual representations of tasks, features, and functions that need to be supported by the product. The design process proceeds with the construction of a "terminology taxonomy", or list of terms that reflect the mental models and terminology of people in the target market.

UX contributors then incorporate these terms and concepts into the product's navigation systems ("navigation system" refers to the menus, links, and feature access screens contained in the product). The workflow for key tasks is then defined in an abstract form (such as a task analysis diagram or use case).

Only after these stages of design have been passed through does a contributor (usually an interaction designer or front-end software developer) begin laying out screens. This emphasis on designing in well-defined stages ensures that the application's underlying conceptual model, terminology, and workflow are validated before a screen is ever designed or coded.

Following this process vastly reduces the risk of the design not meeting users' needs and minimizes the risk that an already-coded design will need to be reworked. This process does not significantly lengthen the design phase of the development lifecycle. In fact, following this process can often shorten the design phase. (Read on for information on how long UX activities typically take.)

Defined stages of design in the UX research and design process.



*Adapted from Jesse James Garrett, *The Elements of User Experience*.*

<http://www.jjg.net/elements/>

Design Iterations

The third characteristic of UX research and design is that it is iterative. That is, designs are incrementally improved by repeatedly exposing mockup or prototype versions - and sometimes even working code - to people from the target user group, having them perform representative and exploratory tasks, and incorporating the resulting feedback into design revisions.

No matter how good a designer is, his or her initial designs are flawed. It is just too hard for a designer to anticipate all the reactions users will have when using a new design. The optimal design comes from incorporating user input in each design iteration.

Advantages of Following UX Processes

The key take-away is that following UX research and design processes yields benefits both for the users and the individuals and teams in product organizations. Users benefit because they enjoy the use of products that have been designed to be – and have been validated as – simple, intuitive and efficient. This increases users' adoption and satisfaction with products. And usually, increased user adoption and product satisfaction also help increase key metrics such as sales, active users, etc.

The people and teams that comprise product organizations benefit from following this process because contributors and managers gain the opportunity to observe users work with early-stage versions of products and features. This helps them develop a shared understanding of who the customer is and what they want and need from the organization's products.

This shared understanding among contributors and managers across disciplines is invaluable. It creates cohesive, high-functioning cross-discipline teams. And when teams are cohesive and highly productive, their members are happier and more satisfied.

1.3 How Does UX Fit In Development Processes?

The SDLC / PDLC

Software or product development lifecycle (SDLC or PDLC) is a term that encompasses all the activities that go into creating a software system, from initial establishment of feasibility and marketability through requirements definition, design, development, validation, and deployment.

UX in the Development Lifecycle

UX research and design activities fit into several areas of the SDLC. During the ideation phase, when technical feasibility and market sizing are being established, UX contributors can assist product management by conducting richly detailed observation sessions with people in the target market, identifying their goals, tasks, and workflow.

In the design phase, UX contributors who are skilled at *interaction design*, *visual design*, and *information design* create mockups or prototypes of portions of the system, and contributors who are trained in *usability evaluation* assess the designs by subjecting them to usability testing.

During the development phase, UX contributors are usually called upon in a consultative or interpretive role, meeting with the developers responsible for actual implementation of the product and providing guidance for underspecified areas of the product. In this phase, the UX contributor's role is to remain the consistent user advocate throughout the project. When negotiations must happen during design and development of a feature, the UX contributor reminds the team of the design persona (the "design target", or user group at which the feature is aimed), helps the product manager identify and weigh the risks of leaving off certain areas of functionality, etc.

During validation and release, UX contributors are sometimes called upon to conduct benchmarking usability tests (called *summative evaluations*) that assess the finished product's performance on several dimensions. The metrics of interest in summative evaluations are typically the error rate for users as they use the system, the time it takes to attain proficiency performing a task or operation while using the system, and the time it takes to perform a task once proficiency has been attained.

The table below provides a summary of the SDLC phases and the responsibilities of the disciplines at each phase of the lifecycle.

Roles and responsibilities during the development lifecycle.

Discipline Phase	Product Marketing & Management	Business & Requirements Analysts	UX Contributors	Development	Quality Assurance	Project / Program Management
Ideation	Role: Approver/Driver Responsibility: Target audience definition, business model research, ID of value areas. Create customer use cases.	Role: Contributor Responsibility: Review PM' s assumptions and high-level requirements.	Role: Contributor Responsibility: Investigate target market needs at the level of individual users (workflow, success criteria).	Role: Informed	Role: Informed	Role: Informed
Design	Role: Approver Responsibility: Contribute to design process. Provide content strategy. Validate adherence to customer business model and value.	Role: Contributor Responsibility: Create and maintain business and functional requirements and specifications.	Role: Contributor Responsibility: Design to meet market and user requirements within technical and schedule constraints.	Role: Contributor Responsibility: Manage feasibility and other technical considerations.	Role: Contributor Responsibility: Create test cases and test plan from scenarios, requirements, use cases.	Role: Driver Responsibility: Plan and manage plan for overall program of work.
Development	Role: Approver	Role: Contributor Responsibility: Ensure that development meets requirements, elicit unknown/latent requirements.	Role: Informed Responsibility: Ensure design is implemented.	Role: Driver Responsibility: Implement the solution, meeting requirements within constraints.	Role: Contributor Responsibility: Conduct iteration testing as modules are completed.	Role: Informed
Validation	Role: Approver/ Contributor Responsibility: Ensure that solution meets use case requirements and delivers customer value.	Role: Informed	Role: Driver Responsibility: Conduct customer validation research to ensure solution viability.	Role: Informed	Role: Driver Responsibility: Assure quality – minimal defects, adherence to requirements.	Role: Informed
Release	Role: Approver Responsibility: Approval authority for release signoff.	Role: Informed	Role: Contributor Responsibility: Approve enhancement from customer view.	Role: Informed	Role: Driver Responsibility: Release management.	Role: Informed

Does UX Work With Agile, Scrum, Lean Etc. Processes?

Yes. Many teams who have adapted the agile model of software ideation, design and development successfully practice user research and iterative design within the context of agile. The main characteristics of agile software development are:

- Attaining customer satisfaction by rapid, continuous delivery of useful software.
- Working software is delivered frequently (weeks rather than months).
- Working software is the principal measure of progress.
- Even late changes in requirements are welcomed.

Agile and UX are definitely compatible. To work most effectively together, UX teams working in an agile environment should adhere to these three general principles:

- **Iteration zero.** Thoughtful, value-delivering design needs solid user research to back it up. Teams should explicitly identify a research sprint, aka sprint zero, where sprint team members observe and even help conduct up-front research to identify the target users' goals, workflows, and needs.
- **Work ahead:** When necessary, UX designers can and should work one or more iterations ahead of developers.
- **Test sprints:** For mid-cycle validation via usability testing, teams can designate one sprint as a "test sprint". Below is a model for how a team can conduct multiple usability test sessions and make revisions over the course of a one-week sprint.

A model for a one-week usability testing and design iteration sprint.

Monday	Tuesday	Wednesday	Thursday	Friday
Test 3-4 users	Revise	Test 3-4 users	Revise	Revise & complete

1.4 Costs Associated with Implementing UX Research and Design

As mentioned earlier in this document, incorporating UX research and design into an organization requires a significant outlay of resources. The sections below provide an overview of the hard costs associated with maintaining a UX competency in a typical software organization. As with any discipline working within the SDLC, hard costs are related to headcount, operations, and equipment.

Headcount

Obviously, the largest expense associated with a UX team is the cost of labor. According to a recent salary survey of UX research and design professionals carried out by the User Experience Professionals Association, UX practitioners and managers within the U.S. are relatively well paid. The table below shows the average and median salaries as of 2018 for managers and practitioners with various UX-related job titles.

Median salaries (in USD) for US-based UX contributors, by experience level.

	Entry level	Mid-level, non-supervisory	Mid-level, supervisory	Senior, non-supervisory	Senior, supervisory
Median	~ 60K	~ 80K	~ 100K	~ 107K	~ 126K

Source: User Experience Professionals Association.

https://uxpa.org/system/files/public/UXPA_SalarySurvey_2018v4.pdf

Note that there are significant regional differences across regions of the US. The differences correspond to the general cost-of-living differences found in the Northeast, South, Midwest, Southwest, Mid-Atlantic, etc.

Operating Expenses

At this point in the document it should be clear that in order to gather valid, actionable data, UX contributors must frequently interact with the product organization's customers, potential customers, and competitors' customers. Since customers' time is valuable, user experience project leaders provide incentives to ensure their participation in studies. Money is by far the best incentive.

UX teams typically pay people participating in a usability test anywhere between \$50 to \$150 USD, depending on the length of the test session and the time of year the test takes place. (It is difficult to get people to show up for research studies during the holiday season, so we increase the incentive significantly between Thanksgiving and Christmas.) When performing lab-based research in crowded metro areas, participants might have to be paid as much as \$175 or \$200 USD just to brave the traffic and show up at the lab.

Going rates for participation in field studies are somewhat higher. The UX group typically compensates a business (or person if they are a sole proprietor) at least \$250 USD for a 2- to 3- hour visit, and up to \$500 USD for a full-day visit. Field-based participants are compensated at a higher rate than in-house participants because UX contributors by their very presence can be somewhat distracting or disruptive to others at the site.

It's important to note that recruiting participants for field studies and usability tests is very time-consuming and is a low-value activity for UX contributors. Their time is better spent designing and carrying out research. For this reason, most UX teams outsource recruiting to local market research firms.

Depending on the complexity and specificity of the sample to be recruited, these firms charge anywhere between \$90 and \$150 USD per person recruited. Fortunately, even small- and mid-sized cities in the US usually have more than one market research firm. This allows a UX team to solicit multiple bids.

Using the figures cited above and estimating how many field studies and usability tests are conducted in a given year, a model yearly research budget can be derived for a UX team. An ambitious yet realistic research budget, based on an assumption of 10 usability tests (using 8 participants) and 6 field studies (using 10 participants) per year, is \$51,000 USD. A detailed breakdown of how this estimate is derived is provided in the table below.

Estimated yearly cost of UX field research and usability tests.

Item	Unit Price	Units	Amounts
Usability test participant compensation	\$150	8	\$1200
Usability test participant recruiting fee	\$150	8	\$1200
Cost of a single usability test			\$2400
Cost of 10 usability tests per year	\$2400	10	\$24,000
Field research participant compensation	\$300	10	\$3000
Field research participant recruiting fee	\$150	10	\$1500
Cost of a single field research project			\$4500
Cost of 6 field studies per year	\$4500	6	\$27,000
Per-year cost of 10 usability tests and 6 field research projects			\$51,000

There are additional factors to consider if your product has a comparatively small user base or does not have many users near your R&D organization's locale. If users are few and/or geographically dispersed, a UX team's operating expenses should be increased to account for at least 12 multi-day trips. This can be broken out for estimating purposes into four 3-day trips by 3 people. At a per-trip cost of \$1500 USD per person, this additional expense totals to \$22,500 USD.

Other operating costs incurred by UX teams include consumables such as videotapes (for recording field visits or usability test sessions), as well as brainstorming and prototyping materials such as flipchart pads, markers, and other office supplies. The total annual cost of these items is approximately \$1,000 USD.

Equipment

Many teams build a user experience lab in one of their company facilities. In-house labs can be quite expensive. The cost of sound and video capture and mixing equipment alone can range from less than \$1,000 to as much as \$50,000 USD. Room modifications such as installation of one-way glass, special wiring, and sound amplification can add as much as \$20,000 USD to the lab cost.

A team can take a more cost-effective approach by purchasing a “mobile lab” (a self-contained audio/video recording unit that can be used in the field or in a meeting room onsite), and slightly modifying a meeting room for in-house test sessions.

Whatever your budget is, I recommend against spending money on equipment first. Those dollars are better spent on a couple of contextual inquiry projects or usability tests. Acquiring actionable, valid data is much more important than having a fancy lab.

2. A Model for Implementing a UX Team

The key to creating a successful team is building support for the team at the top *and* at the bottom of the organizational structure. The GM, VPs, and directors in an organization must strongly support the implementation of UX research and design and help drive the changes necessary to incorporate it into the organization’s processes. At the same time, first-line product managers, R&D managers, and project/program managers must be held accountable for changing existing processes and procedures, and successfully incorporating UX methods and processes.

It’s particularly important for the product management team to strongly support and buy into UX processes. Product management represents “the business” and therefore is the driver and approver for almost all initiatives taken up by R&D. UX teams cannot be fully

effective without the explicit support of product management. Conversely, UX teams are almost always given the time and resources to work effectively when product management sets the explicit expectation that the R&D team must design and implement a product that is proven to be usable by people in the target market.

2.1 Organizational Structure of a UX Team

A team can be structured in several ways, depending on resources and budget. While it is usually true that “some UX is better than none at all”, I’ve found that minimum thresholds of headcount, resource allocation, and process change must be met for a team to be even marginally effective.

At a minimum, a team should include a manager, at least one interaction designer, and at least one user researcher/usability analyst. It is highly desirable to also have a visual designer who is responsible for translating the interaction designer’s low- or medium-fidelity mockups into final designs. Finally, depending on how much your product line produces information for user consumption, hiring a content strategist / information designer would be advantageous.

Ideally, a full team will be comprised of a director, manager, user researcher/usability analyst, interaction designers, a visual designer, and content strategist / information designers. How many of each are needed is addressed in Section 2.2 below.

Director / VP

The director or vice president is the lead evangelist for UX in the product organization. The person in this role is responsible for driving adoption of UX in the product organization and helping product management plan long-term research objectives and projects. The director may also be responsible for evangelizing UX research and design across multiple product lines and business units.

Manager

The UX manager is responsible for ensuring that teams working on product features have been given adequate resources. The manager gauges project priority and resource availability and assigns resources to tasks as appropriate. The manager is also responsible for helping the director and the product management group plan and resource long-term projects.

User Researcher / Usability Analyst

The user researcher/usability analyst functions as the “voice of the user” by determining what users of the product (or of a particular feature) are trying to accomplish, how they conceptualize their work in this area, and their pain points. Then they must represent this information within the product organization during the ideation and design phases. During the development phase, these contributors assess the usability of the interaction designers’ designs by subjecting them to usability tests. In this way, the usability analyst/user researcher ensures that user needs, limitations, and attitudes are accounted for in the design.

UX Strategist

UX strategists typically work at the level of the entire product, and can have responsibility for the entire customer experience, including both in-product and outside-the-product experiences such as prospect and customer communications and the design of multi-channel experiences (i.e., videos, community experiences, etc.).

Interaction Designer / Information Architect

The interaction designer / IA determines how a feature (or the entire product) should work for the users and designs the user-application interactions as appropriate. On the IA side, this includes the terminology used in a particular feature or area of the product, and where the feature is accessed within the product.

Someone in an interaction design role would typically design the flow of screens associated with the feature, the controls displayed on the screens, and how the application would respond to user inputs. Interaction designers must possess an understanding of the product and its features, the requirements for new features and most importantly the characteristics of users who will utilize the feature.

Content Strategist / Information Designer (also known as UX Writer)

The content strategist / information designer is typically responsible for inventorying, producing and managing content that is central to their organization's offerings. The content could be community postings, help content, tutorials, web-based information, etc.

At the strategic level, they will create and implement content plans, manage content calendars and editorial responsibility matrixes, as well as measure, track and seek to improve customer engagement with content.

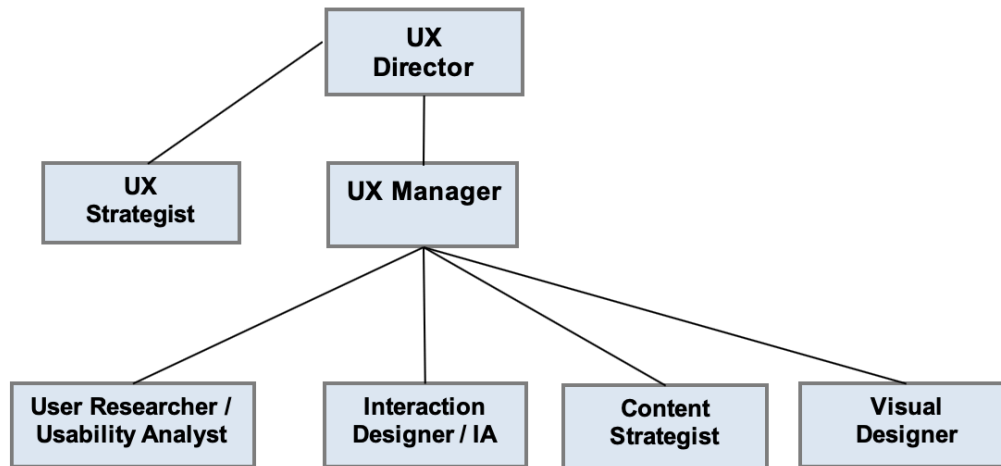
The past several years has seen the growth of a related role called "User Experience Writer" whose practitioners are responsible for ensuring the quality of content ranging from microcopy to editorial tone.

Visual Designer

The visual designer is responsible for overall look and feel of the software. They create the final user interface based on the interaction designers' mockups and specifications. If the organization maintains a user interface style guide, they often maintain this resource.

Below is a sample UX team organizational chart.

Sample UX team organization chart with one manager for research and design functions.

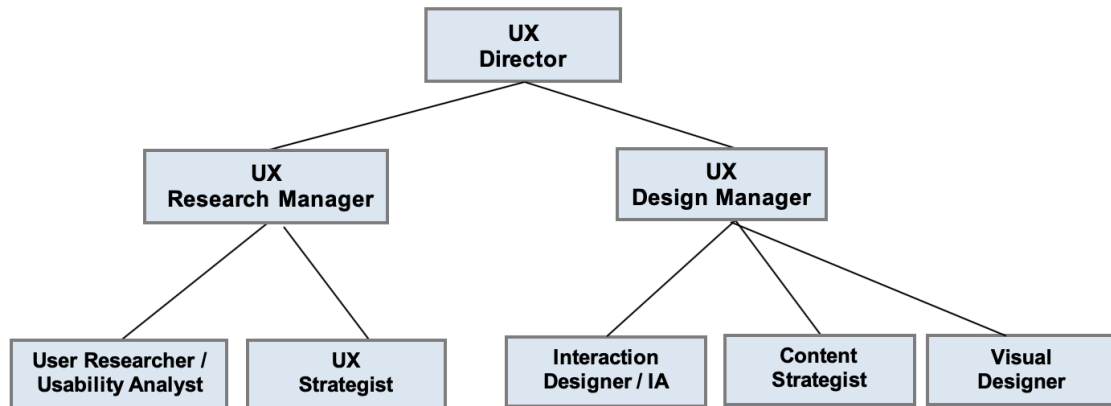


For larger groups, it may make sense to appoint a separate manager to support the user research / usability analysts. This is because product management typically asks these contributors to study issues that may be addressed one or two releases in the future.

Researcher/analysts are also asked to perform exploratory projects in support of new product development. In these cases, it makes sense to have a dedicated manager to coordinate this work. This option is depicted in the figure below.

It's also worth noting that a UX strategist could function equally effectively in the research or design reporting structure. In any case the person in this role will be liaising with both teams as well as product and engineering.

Sample UX team organization with separate managers for research and design functions.



Position descriptions for the roles described above are provided in an appendix to this document.

2.2 Team Size

As mentioned above, at a minimum an organization should staff a UX team with one manager, a user researcher / usability analyst, an interaction designer, and a visual designer. There is no hard-and-fast rule regarding team size. But a good-enough estimate for team size can be generated by interpolating (or extrapolating) a team size given the number of UX contributors servicing a typical multi-product software product organization.

Consider a team with the following members:

Position	Count
User researcher / usability analyst	1
UX strategist	1
Interaction designer	1
Visual designer	1
Content strategist / information designer	1
Manager	1
Director	1
Individual contributors	5

Total team	7
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This team serves within a product team of approximately 100 people. (Note that “product team” is defined as the combined group of people who contribute materially to the production of the product, such as product managers, requirements analysts, developers, QA analysts, etc.) The ratio of others on the product team to UX in this case is approximately 13:1.

Another way to look at it is to compare the UX team against the number of developers in the product team. Say the product team contained 25 developers. This yields a developer-to-UX contributor ratio of about 5:1.

2.3 The Engagement Model: What Services Does UX Provide?

Up to this point, activities performed by the UX team have been organized into two groups: field-based and in-lab. This section provides a more detailed description of the services a UX team can provide at various points in the development lifecycle.

The table and figure below depict the service or activity the team can provide, and where in the SDLC it is typically utilized.

Services typically provided by a UX team.

Service	Phase	Provides:
Contextual inquiry	Ideation	Users' goals, objectives, tasks, and limitations/constraints.
Task analysis	Ideation	Step-by-step description of users' current tasks and processes.
User profiling	Ideation	Detailed reports of real users; what they do, and how they do it, etc.
Persona creation	Ideation	An abstracted description of users, based on the attributes of real users.
Role / task / object matrices	Ideation	Additional details about who does what in a particular environment, as well as the importance of particular tasks.
UX strategy & vision definition	Design	How the product will support adoption, continued use and (if applicable) upgrade and recommendation business objectives.
Content strategy & creation	Design	Assessment, cataloguing, and organization of product content (content inventory). Development and tracking of new content development (content management).
User journeys & experience maps Task scenarios & process flows	Design	Descriptions of how the product and user interact with each other.
Information architecture	Design	Terminology / nomenclature, hierarchy, and navigation schemes for the product.
Early-phase usability testing	Design	Testing of the process flows and scenarios to ensure that they meet users' needs.
Wireframes, mockups, storyboards & prototypes	Design	Low- or medium-fidelity representations of product features and how users interact with them.
UI / interaction specifications	Validation & documentation	Formal, documentation of the feature or product's user interface.
Visual design specifications	Validation & documentation	Formal documentation of the visual design for the product.
Late-phase usability testing	Validation & documentation	Usability testing of a working prototype or mockup.
Summative usability testing	End-of-cycle validation	Usability testing of a finished version of the product, measuring key indicators such as average time-on-task, error rate, etc.

The next table arrays the tasks by typical UX contributor roles. It's important to note that each title does not necessarily correspond to a single person. Many contributors possess skills in two or even three UX skill concentrations.

UX roles with typical activities and deliverables.

Role	Typical Activities & Deliverables
User Researcher / Usability Analyst	Contextual inquiry Task analysis Role / task / object matrices User profiling Usability testing
UX Strategist	Personas UX strategy and vision User journeys, experience maps, task scenarios, process flows
Interaction Designer / Information Architect	Wireframes Prototypes Interaction specifications Site structure, labeling, navigation
Content Strategist / Information Designer	Content strategy Information design and content production Content management
Visual Designer	UI designs Visual design specifications UI style guide

2.4 How Long Do UX Team Activities Take?

Like any activity undertaken during the development lifecycle, it is sometimes difficult to accurately estimate the length of time needed for a given activity. However, certain activities can be accurately estimated with very little knowledge of the specifics of a feature or product.

The short answers to the “how long” question are: about three weeks for a field-based customer observation project or a usability test for a set of features. However, many of the preparatory tasks for both of these activities can occur in parallel with other activities carried out by product management and R&D. When the time savings from avoided late-stage rework is factored in, it becomes clear that UX activities have little to no negative impact on the overall length of time allocated to a product release’s program of work.

For example, both early- and late-phase usability testing usually requires a lead time of approximately three weeks. The first week is spent identifying the appropriate target users, securing a vendor for recruiting a group of these users (if this task is handled externally), and creating a draft usability test plan. The second week is spent developing a mockup or prototype, iterating the test plan, gathering the needed equipment and materials, and inviting team members to observe the test. During the third week, the test sessions are carried out and the design is iterated and improved upon.

However, the activities of the first two weeks can be carried out in parallel with other activities in the project plan. The project is mostly affected by the time that elapses during the third week, when the design is tested and modified. For all but the most complex features, each early- and late-phase usability testing effort adds a little more than a calendar week to a project schedule. (Some designs that completely miss the mark during early-phase usability testing require additional time for ground-up redesign and subsequent validation.)

It should be noted that these elapsed time estimates do not include the effort necessary to produce the interaction design specification and final visual design. Those activities require unique estimation for each project, because every feature - and thus each design challenge - is different.

3. Expect Changes to Processes...and to Culture

The experiences I've had at a number of software vendors and consultancies has taught me that successfully incorporating UX processes into a product team triggers significant changes in how the organization thinks about, organizes, and carries out its work. When UX processes are deployed, the organization almost always finds that wide-ranging changes must occur as a result:

- Product management must learn to incorporate the UX team's qualitative research in their planning and decision-making for features and products...but the benefit is that product plans become much more connected to customer needs, and final products deliver more value as a result.
- Project / program management must explicitly make room for user experience activities (such as usability testing and iterative design) in the schedules.
- Software development and whoever was previously designing the user interface must cede authority over the user interface to the UX team.
- All disciplines must learn how to collaborate with a new set of people who have unfamiliar methods and techniques.

Culture and Change

When these types of changes occur simultaneously, it's fair to say that they represent a significant culture change. Acknowledging this will help prepare senior leadership for the conflict and churn that are invariably associated with wide-ranging changes such as this.

Large-scale changes of any type are always disruptive in the work environment. Elemental changes to how people organize and carry out their work are probably among the most disruptive changes people encounter in the workplace.

Following these guidelines helped us minimize stress and disruption within your organizational culture:

1. **Staff the team first, and staff it right.** Get your UX team in place and ready to go. And appoint a strong, knowledgeable manager at the outset.
2. **Measure your senior staff on how successfully they incorporate UX into processes.** Don't let "UX" become a simple checkpoint at the end of the development lifecycle. Incorporate them fully into processes, and ensure your senior staff is on the hook to deliver on this.
3. **It's OK to take a trial approach to process change in the beginning.** If you're in the middle of a release cycle, start working within the new process model using a single feature or two at the most. Then completely cut over to the new process model at the beginning of the next release cycle.

Skillsets and Talent

Adding user-centered design talent to an organization isn't as simple as hiring completely from the outside and dropping a newly formed team into the organization. A number of people in your organization are likely to be performing job functions that are similar to the ones described earlier. It is also highly likely that some people in your organization have already taken an active interest in usability, human-computer interaction, and user-centered design.

I strongly recommend leveraging any in-house talent and enthusiasm that may be present in your organization. When constructing the UX team, you will almost certainly be able to reassign some current contributors to the team. The most likely candidates for this type of

“repurposing” are graphic designers (who often are interested in visual or interaction design), documentation specialists (who may possess user research, usability or interaction design skills), requirements or business analysts, and even software developers.

For senior positions within the UX team, I suggest bringing in outside talent, preferably individuals who have been exposed to a number of development environments, knowledge domains, and product types. Breadth of experience in UX leaders often helps them to develop good judgment and sound organizational instincts, both of which are vital to successfully implementing these new processes in your organization.

4. Appendix A: UX Team Position Descriptions

This section of the document describes in greater detail the competencies and qualifications associated with the various members of a typical UX team. In certain organizations, UX practitioners may perform the duties of several roles.

4.1 Director of User Experience

The UX Director is responsible for creating and maintaining a team of UX research and design professionals, ensuring that product management and development teams are receiving the desired services and service levels, setting the strategic vision for UX practices at the organization, and ultimately for ensuring the quality of the product or service's user experience.

Key Job Responsibilities

The UX team provides user research, interaction and visual design, and usability testing services to the business. To facilitate this, the UX Director does the following:

- Develops, maintains, and continually improves processes for providing research needed during feature/product ideation and prioritization.
- Develops, maintains and continually improves processes for how designers and usability analysts engage with feature teams during feature/product development.
- Ensures that research, design and usability test roles are adequately resourced.
- Ensures that UX staff is delivering high-quality and timely research, design, and usability engineering services to product management and R&D.

The UX Director is also responsible for guiding staff and managers' professional development. This includes providing opportunities for training and education, and challenging UX staff to learn and apply skills and methods to help the organization achieve its goals.

Qualifications

- Experience in user interface design, information architecture, usability testing, human factors, and other related disciplines within a consultative or corporate environment.
- Experience managing UX research and design practitioners.
- Proven ability to instill UX research and design as a core value within an organization's culture.
- Outstanding communication, organization, time management, and interpersonal skills.
- Thorough knowledge of the software development lifecycle.
- Employee hiring and retention experience.

4.2 User Experience Manager

The UX Manager is responsible for ensuring that the product or service achieves customers' specified goals with efficiency, effectiveness, and satisfaction. The manager establishes UX research and design best practices and standards within the organization. Research-focused managers are responsible for coordinating and leading user research within the organization, and work closely with product management to ensure that that user needs and expectations are the key driver for new feature and product direction.

The manager recruits, hires, and mentors UX contributors and oversees their deployment and performance on software development projects. The UX Manager may also contribute as a reviewer on projects as necessary.

Key Job Responsibilities

- Define and implement effective and efficient processes and tools for developing usable and satisfying user interface designs on supported projects.
- Manage and review research and design activities to meet project schedules with high quality and within budget.
- Identify and hire resources/skills needed within the organization.

- Responsible for the mentoring, performance management, and training of staff.

Qualifications

- Experience in user interface design, information architecture, usability testing, human factors, and other related disciplines within a consultative or corporate environment.
- (Optional but desirable) Experience managing UX research and design practitioners.
- Outstanding communication, organization, time management, and interpersonal skills.
- Thorough knowledge of the software development lifecycle.
- (Optional but desirable) Employee hiring and retention experience.

4.3 User Researcher / Usability Analyst

The User Researcher / Usability Analyst is primarily responsible for designing and conducting user-centered design research and usability testing for products and services. The research includes identification of user needs and goals, as well as task and workflow modeling. Usability testing includes rapid iterative usability testing and more in-depth validation and summative testing.

The ideal candidate will also possess some interaction design skills, including the ability to create and document navigation structures and information design. The candidate does not have to create final visual designs but should have the ability to create detailed screen wireframes to effectively communicate designs to product management, design, and development.

Key Job Responsibilities

Usability analyst:

- Conduct rapid iterative usability testing of wireframes, mockups, and prototypes.

- Translate research findings into design recommendations to quickly improve product designs early in the design cycle.
- Perform validation usability testing to determine whether features and products have met business and usability objectives.

User research:

- Prepare research proposals:
 - Clarify research goals based on input from product management and other business stakeholders.
 - Develop innovative strategies to answer research questions with limited resources.
 - Design research protocols and prepare research plans.
 - Plan user research activities such as participant recruiting and scheduling, materials production, lab preparation, and other logistics.
 - Create research materials as necessary.
- Manage projects:
 - Establish and socialize success criteria for projects, ensuring shared vision of the project's goals and objectives.
 - Establish achievable schedules and manage to them.
 - Regularly communicate status of projects and other key information to business stakeholders.
- Perform data analysis:
 - Perform qualitative and/or quantitative analyses.
 - Prepare initial results and share with key stakeholders.
- Synthesize, report, and advocate:
 - Translate research findings into actionable, prioritized recommendations.

- Document and present findings and recommendations to stakeholders and technologists.
- Strategize with stakeholders on how to act on research finding.

Qualifications

- Extensive experience in methodologies for uncovering user needs and product opportunities. A background in ethnography and cognitive science methods is helpful.
- 3+ years of experience in user research, user interface design, information architecture, usability testing, human factors, and other related disciplines within a consultative or corporate environment.
- Outstanding communication, organization, time management, and interpersonal skills.
- Knowledge of the software development lifecycle.
- Bachelor's degree in a related area such as psychology, human factors or HCI; a Master's or PhD in is an advantage.

4.4 UX Strategist

UX Strategists typically set direction for the entire customer experience of a product or service. This includes both in-product and outside-the-product experiences such as prospect and customer communications and the design of multi-channel experiences (i.e., videos, community experiences, etc.)

Key Job Responsibilities

- Gather and synthesize customer, competitor and industry data to guide product / service design.
- Ensure that UX teams align their direction with their organization's business plan.
- Facilitate strategic, customer-centric decision making.

- Build relationships across the organization to build relationships that help the UX design effort succeed.

(Adapted from “What Does A UX Strategist Do?” Paul Bryan, 2012.

<http://www.uxmatters.com/mt/archives/2012/03/what-does-a-ux-strategist-do.php>)

Qualifications

- Experience in user interface design, information architecture, usability testing, human factors, and other related disciplines within a consultative or corporate environment.
- Experience working within UX teams and across discipline boundaries to deliver high-quality user experiences.
- Knowledge of how to best design to solve business and user problems. Ability to understand the needs of customers.
- Strong design fundamentals including information design, visual design, industry UX/UI standards across platforms, and ease of use best practices.
- Ability to articulate and design high-level, cross-channel experiences both within and outside the product.

4.5 Interaction Designer / Information Architect

The Interaction Designer is responsible for creating navigation structures and information designs, as well as constructing prototypes, storyboards, and mockups to effectively communicate designs to product management and development.

The interaction design role depends greatly on user-centered design research and usability testing to guide their designs. The candidate will possess the ability to create compelling, efficient and enjoyable designs for the target users.

Key Job Responsibilities

- Assist product management and feature teams in defining functional interaction requirements specifications.
- Create mockup and prototype interaction designs, including user interaction models, information architectures and navigation models, wireframes and screen flows.
- Work with other UX practitioners to conduct customer studies of mockups, prototypes and existing interfaces; and iterate designs based on usability test results.

Qualifications

- Experience designing interactions and user interfaces.
- Experience collaborating with usability and user research specialists.
- Knowledge of how to best design to solve business and user problems. Ability to understand the needs of customers.
- Design fundamentals including information design, visual design, industry UI standards for desktop and web-based applications, and ease of use best practices.
- Experience with industry-standard technologies and design tools.

4.6 Content Strategist / Information Designer

The Content Strategist / Information Designer typically draws on the business goals and user needs to audit existing content and create a comprehensive plan for future content. This includes what needs to be created, edited, or removed; how, when, by who, and where. (Adapted from “Content Strategists: What Do They Do?” 2012.

<http://contentini.com/content-strategists-what-do-they-do/>)

Someone in this role will usually but not exclusively deal with digital information such as: web pages, blog posts, multimedia, social media conversations, and email newsletters. Often the scope can include off-line content as well.

Key Job Responsibilities

- Create and implement content plans.
- Create and manage content assets.
- Create and manage editorial and content calendars and schedules.
- Track performance of content through various channels via analytics and metrics.

Qualifications

- Experience in marketing communications, editing, community management, content production, technical writing or other related experience.
- Familiarity with user experience research and design methods.

4.7 Visual / UI Designer

The Visual / UI Designer is primarily responsible for translating wireframe interaction designs and storyboards into final visual designs for an application. The visual / UI design role depends greatly on user-centered design research and usability testing to guide designs.

The user interface designer is often responsible for documenting designs in a specification document or online style guide.

Key Job Responsibilities

- Work with product specialists, usability specialists and interaction designers to develop and iterate user interface designs based on research and usability test results.
- Produce final user interface designs and deliver the designs in a format or formats that team members can use for development and testing.

Qualifications

- Experience in product development teams designing user interfaces.
- Experience working with user-centered design/human factors specialists.
- Knowledge of how to best design to solve business and user problems. Ability to understand the needs of customers.
- Design fundamentals including information design, visual design, industry UI standards for desktop and web-based applications, and ease of use best practices.
- Experience with industry-standard technology and design tools.

Appendix B: Resources

Since the original release of this document I've created several other resources for UX practitioners.

UX Project Planner & Tacker Template

I created this resource as a tool to document a user experience project in an efficient and collaborative manner, as well as give clients/stakeholders visibility and accessibility into various aspects of the project.

We all know the importance of setting appropriate stakeholder expectations, attaining alignment among contributors and stakeholders, and ensuring that your project schedule, process and data are accessible by all involved.

The planner / tracker is my solution to these challenges. It's not perfect, but it functions well as a "one place for everything" resource. You can use it to frame up the project, identify contributors and approvers, lay out the schedule, design and document your recruiting and session protocols, record your project meeting notes, and even enter your raw notes from observations or interview sessions.

Best of all, your client or stakeholder can comment inline on whatever section you need reviewed. Because I've utilized document headings and subheadings, you can do neat things like tell the client (via email, Slack, semaphore, etc.) something like:

Hi all, I've drafted the recruit request and put together an initial schedule of session times and dates. Could you please review these and provide comments and/or approvals?

The recruit request text is here:

<https://docs.google.com/document/foo#heading=recruitheadingID>

And the participant schedule is here:

<https://docs.google.com/document/foo#heading=scheduleheadingID>

Some other thoughts:

- Leave the outline sidebar on. It's incredibly useful for jumping between sections.
- I'd like to add a section for initial data synthesis, and possibly analysis. I just figured getting this out in the world was more important than making it perfect.
- As you read it, you'll see references to other tools that I employ for project work, such as Slack, Google Drive, Moqups, etc. Obviously, use what works for you. But I highly recommend including direct links to any external resources in the project planner itself.
- I've set permissions for this as "viewable, copyable and downloadable by all." You should be able to just save a copy to your own Google Drive or download it to use in Word. Fair warning: I make no claims regarding formatting fidelity outside of Google Docs.
- I've licensed it under the Creative Commons Attribution-ShareAlike 4.0 International License. As a Creative Commons work, it's yours to use, modify, adapt, etc. Please share it, improve it, and enjoy.

The template is here:

https://docs.google.com/document/d/1VqgNCnlwG89WVjI7wjK3SD_6AMhKGMjUhpBW6zkdYjs/edit?usp=sharing

Daily Research Recap Template and Example

I created this template as a way to quickly communicate research results to team members and stakeholders on a daily basis.

One of the more important lessons I've learned during my UX career is that it's vital for UX practitioners to keep team members and stakeholders informed and aligned. Another lesson I've learned is speed of communication is critical in this brave new world of agile/lean product ideation, design, and development.

As the people who glean insights from users and customers, we should strive to communicate our results quickly. At the same time, we need to be clear that daily recaps should not take the place of considered analysis.

This template is intended to communicate “here’s what we’re seeing after n user sessions” as opposed to “here’s the results, now go write stories and code to this information.” When you use it, you should ensure that this understanding is shared.

It’s set up as an email, but you could just as easily drop it into Slack, Jira Agile, etc.

The template is here:

https://docs.google.com/document/d/1VqgNCnlwG89WVjl7wjK3SD_6AMhKGMjUhpBW6zkdYjs/edit?usp=sharing

Rapid Contextual Innovation Guide

The guide includes an overview of how organizations can conduct ongoing rapid innovation using UX methods and product management best practices. As you might expect, the process guide incorporates some concepts covered by Lean and Agile UX proponents.

Get it at <http://www.shermanux.com/docs/rapid-contextual-innovation-v2.pdf>