

UX Analysis and Planning

Embedded Interface Design

with **Bruce Montgomery**



Learning Objectives

Students will be able to...

- Understand the importance of the analysis and planning phase
- Consider the variation in content and approaches for starting projects
- Understand what elements are key for starting UX projects
- Consider the impact of multidisciplinary teams on UX projects



Analysis and Planning

Analysis: a detailed examination of anything complex in order to understand its nature or to determine its essential features: a thorough study [1]

Plan: a method for achieving an end; a detailed formulation of a program of action [2]

“Change should be a friend. It should happen by plan, not by accident.” – Phil Crosby

UX Analysis and Planning



- Why?
- Starting a Project – the PMI way
 - Waterfall
 - Agile
- UX Project Considerations
- Multidisciplinary UX Teams

Analyze and Plan: Why?



- When you think of UX, you may think more of the design elements, like sketching or prototyping, or of the testing with users.
- But really, setting a good foundation for a project is a key initial step.



Analyze and Plan: Why?

- Set the Scope
 - What's being developed? What is the function and purpose of the device or system?
 - Identify target audiences: Who is it for? Internal, specific customer, or the world?
 - How will the analysis and research you do affect your plan? Can you respond to changes?
- Set Measurable Objectives
 - User's goals – what tasks will they use the device to achieve?
 - Usability goals – how will you assess or measure the device's usability?
- Set Alignment and Authorize Work
 - Agree on what you're doing, and how you're planning to do it (even though it will change)
- Reference [3]



Starting Projects: PMI

- The PMI (Project Management Institute) sets the primary guidelines and best practices in a book called the PMBOK (Project Management Book of Knowledge)
- The PMBOK 6th Edition [4] now includes the Agile Practice Guide
- PMI recognizes
 - That some projects run in a traditional waterfall process, from stage to stage, from stage gate to stage gate, meeting sequential milestones to complete the effort
 - Other projects run in an agile fashion, where the engineering team may change deliverables and priorities periodically, perhaps daily, in partnership with product owners

PMI Waterfall Projects



- For starting formal waterfall projects, the PMI recommends a project charter, as a way to formalize authorizing and kicking off the project
 - A charter includes purpose, objectives, success criteria, high-level requirements, risks, milestones, stakeholders, etc.
- The next step is to develop a Project Management Plan
 - This includes management plans for project scope, requirements, schedule, cost, quality, resource, communications, risk, procurement, stakeholders, change control, performance measurement, and more
- Formal projects are often controlled with Work Breakdowns, Gantt Charts, Budgets, and other reporting mechanisms and rhythms

PMI Agile Projects



- The Agile Practice Guide [also in 4] also uses charters for project kickoffs
 - Charters include project vision, purpose, release criteria (what does done mean), and work flow
- Agile projects use iterative cycles of retrospectives, backlog review, daily standups, demonstrations, and other planning elements
- Often this is based in established agile processes like Kanban, Scrum, Extreme Programming, or other agile management methods
- In both cases, agile and waterfall, understanding the why, who, when, and how of a project right at the start is a key to success



Starting UX Projects

- A recent article on starting UX projects outlines key considerations to understand prior to kickoff [5]
- Defining Success – how is it measured for you, your company, and the company that needs the project?
- About the Organization – culture, decision making, stakeholders
- About the Team – strengths, capabilities, skills, expectations, what makes them successful or satisfied
- About the Brand (look, image, etc.) - key brand elements, resources, decisions

Multidisciplinary UX Teams



- Ideally, when a UX project kicks off, the design team will include any number of experts in different areas
 - Usability, human factors, marketing, graphic design, technology, engineering, QA, and performance support
- Most projects have stakeholders (management), peers (people working on other similar projects), team members, and customers (who may be users or may not)
- Users and user surrogates must also be identified for input along the way

Multidisciplinary UX Teams



- Collaborating and informing across all the team roles is a difficult task for a focused project manager, it will also be a challenge for any UX design or improvement project
- It may be necessary to use project management techniques such as stakeholder management, roles & responsibilities reviews, and careful communications plans to maintain a successful support structure
- For more information, see PMI on Stakeholder and Communications Management, as well as Role & Responsibility Charting (RACI Matrix) [4]

Summary



- Upfront planning, regardless of the project management style, increases the chance of success of any project, including UX work
- The PMI is a great source for best practices for waterfall and agile, but many UX books and processes also include methods for this initial project stage
- Like formal and discount UX processes, the level of project oversight and the formality of management may vary based on the situation
- Much of the effort in project management is keeping people engaged, informed, and part of the process – certainly a key to successful UX projects
- Next up – UX analysis and planning methods

References

- [1] <https://www.merriam-webster.com/dictionary/analysis>
- [2] <https://www.merriam-webster.com/dictionary/plan>
- [3] <https://www.usability.gov/how-to-and-tools/methods/develop-plan.html>
- [4] <https://www.pmi.org/pmbok-guide-standards/foundational/pmbok>
- [5] <https://uxdesign.cc/a-comprehensive-ux-guide-to-project-kickoffs-1782e07bc8e6>

