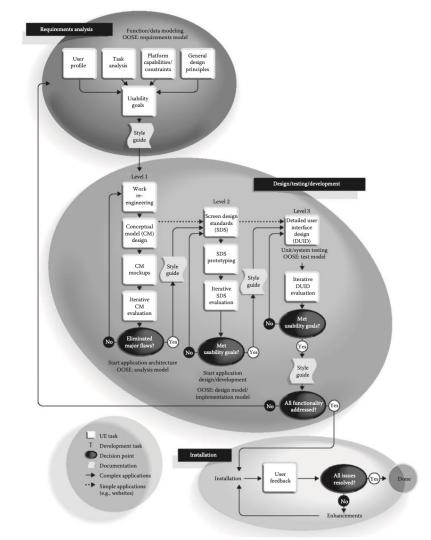
Interactive systems design processes

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UX engineering lifecycle

(Mayhew and Follansbee, 2012)



Agile Culture and UX (Beyer, 2010)

- There is only one team
 - > UX leverage point: UX designers and developers are part of the same team.
- The user is on the team
 - UX leverage point: UX designers' dreamworld.
- Plans and architectural work are a waste of time
 - UX leverage point: Sprint 0 and parallel stream.
- Face-to-face communication is better than documentation
 - > UX leverage point: Direct dialog between UX designers and developers.

Agile Culture and UX (Beyer, 2010)

- Short sprints are good. Shorter sprints are better
 - > UX leverage point: UX work is part of the definition of done (DoD), design debt.
- Continual feedback guides the project
 - > UX leverage point: UX designers get user feedback from user studies.

Agile UX: Best Practices (Beyer, 2010)

- Get user feedback from real user in context
- A sprint 0 to define system scope and structure
- UI design done one iteration ahead
- Validation done one iteration behind
- Parallel UX stream
- Programmer/designer "holiday" (to deal with technical/design debt)
- Architectural spikes (whole sprint to study a technology problem) for difficult issues
- UX as a full team member



Phase 0: Initial user research, visioning, paper prototype testing

Release planning

Sprint

Sprin^a

Sprin^a

- Contextual Inquiry
- Affinity Diagram
- Work Modeling
- Personas
- Visioning
- Storyboards
- User Environment Design
- Paper Prototyping



Phase 0: Initial user research, visioning, paper prototype testing

Release planning S_I

Sprint

Sprint

Sprin^a

- Contextual Inquiry: User interviews in their workplace
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Sprint

Sprin



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Sprin

Sprin[®]

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Sequence 1: Monitoring incoming customer email

- U1-1-1 Intent: Be sure priority customers and sales opportunities are handled quickly
- U1-1-2 Trigger: Realize that mail hasn't been checked over an hour
- U1-1-3 Go to tech service mail box and scan the senders and subjects
- U1-1-4 Set priorities for how to work through the email
- U1-1-5 See a request for a recommendation for replacement part

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Equivalent to task models

Personas:

Phase 0: Initial user research, visioning, paper prototype testing



"We think we are a modern employer"

Al Johnson, Reluctant HR Expert

Al Johnson is the finance director at a small manufacturing firm. He'd really prefer to spend 100% of his time overseeing finances and operations but he usually needs to devote almost half his time to HR issues. He's not trained for it and has no particular HR expertise, and the laws are so complex that though they try to treat their people well, Al constantly worries about whether his firm is at risk. He tries to keep on top of the latest updates in HR law and regulations, but there's so much information it's easy to miss things.

Al Johnson's time is stretched thin at his small manufacturing firm. Not only is he its full-time financial director. he's also the only one who can act as an HR expert in the firm. As a result, he is forced into the position of working on HR issues for which he is ill-trained.

Recently, for example, an employee got sick just before a planned vacation. Does his time out qualify as sick leave or vacation time? Another employee wanted to take vacation right before her maternity leave started, leaving a big hole in the staffing of this small firm. Should this request be honored?

And yet the firm wants to treat their employees well. For example, they have generous flex-time policies and participate in Britain's bike-to-work program. Al worked extra hard to make sure the pregnant employee, a recent Iragi immigrant, understood the process and her rights.

Keeping on top of HR law and best practices is an ongoing headache for Al. He subscribes to an HR news services, but they send much too much information and very little of it is relevant to his specific situation. It is easy to miss important issues—it was his factory manager who noticed and told Al about the last increase in minimum pay

All does work with an external HR firm to augment his own knowledge. But he often doesn't think to bring them into a problem right at the beginning, which reduces their effectiveness.

- · Focus on his "real job" of finance and operations, minimizing time spent on HR work
- · Make sure his firm is not at risk because of how they treat employee issues
- · Make a good employment environment for his people
- . Stay on top of the "right way" to execute HR

- · Oversee HR processes: Hiring, firing, discipline, and other employee issues · Review proposed employee policies to ensure
- they meet HR regulatory requirements
- · Work with external HR experts on handling
- · Track employee absence, vacations, and sick leave

Roles

- · Finance Operations Overseer
- · Regulation Compliance Ensurer
- · Disciplinary Process Manager · Dismissal Process Manager
- · HR Documents Maintainer

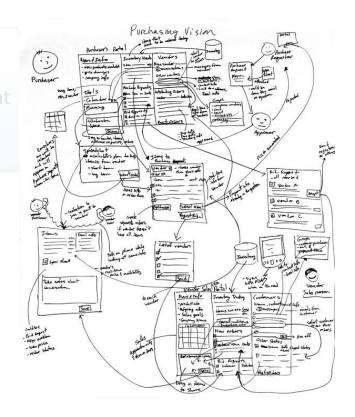
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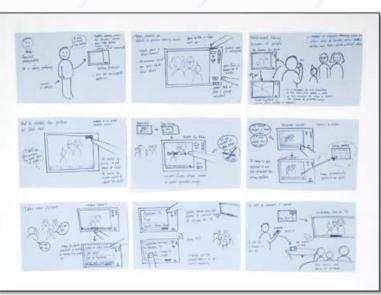
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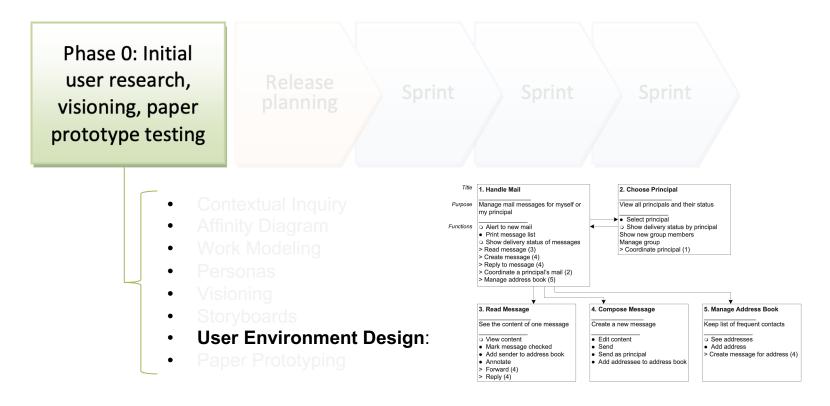
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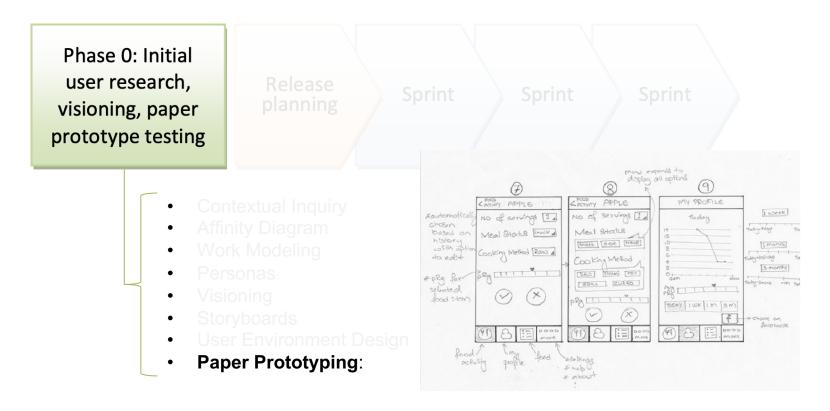
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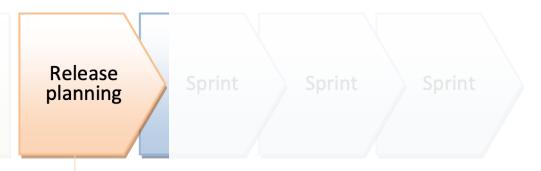
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Remember: Results and artifacts of user research must be evaluated (tested) with users



Phase 0: Initial user research, visioning, paper prototype testing



- Writing User Stories
- Estimating Cost
- Planning the Release

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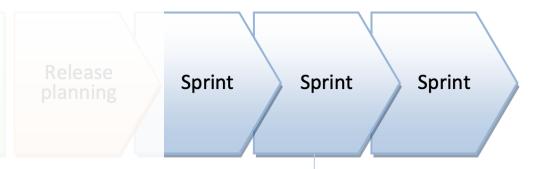


Table 5.1: The UX work on a story interleaves with development of the story, with design done one sprint ahead of implementation and user testing one sprint behind.

	UX Team	Development Team
Sprint 1	Design UI for story 1; prototype and iterate with users	Put development system in place; implement low-UI stories
Sprint 2	Design & iterate UI for story 2 Consult on implementation of story 1	Implement story 1
Sprint 3	Test implementation of story 1 with end-users Consult on implementation of story 2 Design & iterate UI for story 3	Implement story 2



- <u>UX team: 3 jobs</u>
- Sprint Interview Preparation
- The Sprint Interview
- The Interpretation Session

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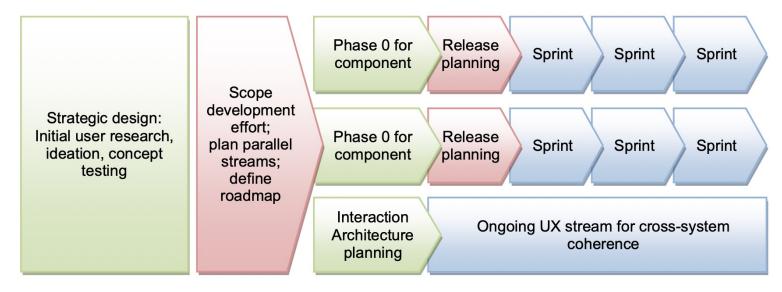
- Jumping on a moving train
 - ➤ No Sprint 0
 - > Do user **tests** in the **users' workplace**
 - Work towards designing a sprint ahead
 - Start gathering work practice data
 - Use a project break to step back



- System extension
 - > Sprint 0 is used to **learn** about the existing system and the new tasks
 - User interviews lead to design insights
 - User interface most likely will need to be extended and/or adapted:
 - Should be designed and tested using paper prototypes
 - UX designer should not assume the existing UIs are the right ones

- Major new release
 - Requires strategic design to understand the domain and envision an overall solution: sprint 0 is usually not enough.

• Major new release



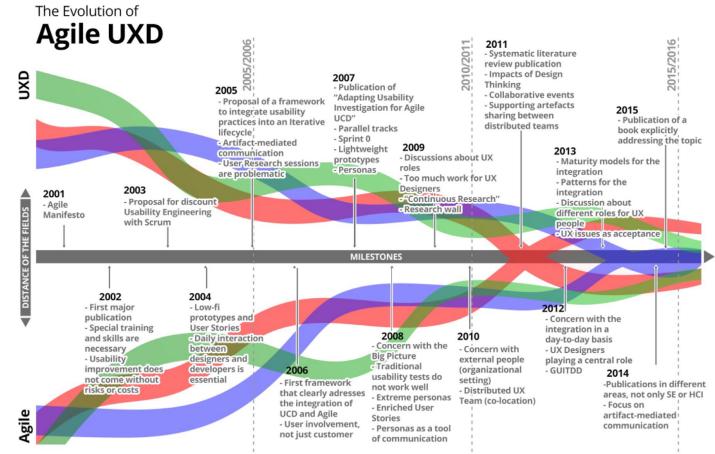


Agile UXD

(Da Silva et al., 2018)

Technology/Artefact
People/Social

Process/Practice





Discussion

 How does prompt engineering interactive systems with large language models affect the current user-centered design processes?

