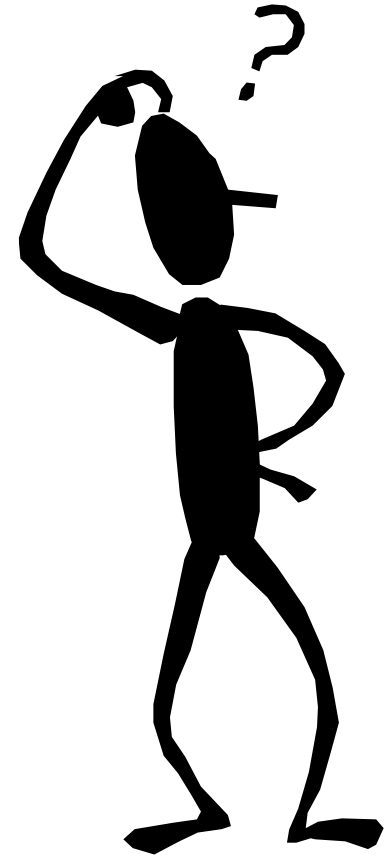


Week 12

Interaction Design in Practice

Overview

- AgileUX
- Design Patterns
- Open Source Resources
- Tools for Interaction Design



Agile development

- Short (one to three week) timeboxes of iterative development (sprint, iteration, cycle)
- Early and repeated customer/user feedback
- Re-prioritization of work based on customer or user so that emergent requirements can be handled
- Many approaches, for example, eXtreme Programming (XP), Scrum, Kanban, and Dynamic System Development Methods (DSDM)

Technical Debt in UX

- Making compromises that are expedient in short term, but cause problems in long term
- Refactoring to correct pragmatic trade-offs
- UX debt arises from trade-offs
 - A history of neglecting UX
 - Large portfolio of products developed independently

AgileUX

- Integrates techniques from interaction design and agile methods
- AgileUX requires balancing research and reflection for good UX with rapid iterations incorporating user feedback
- In Agile iterations, requirements are elaborated and re-prioritized, rather than specified up-front

AgileUX *(continued)*

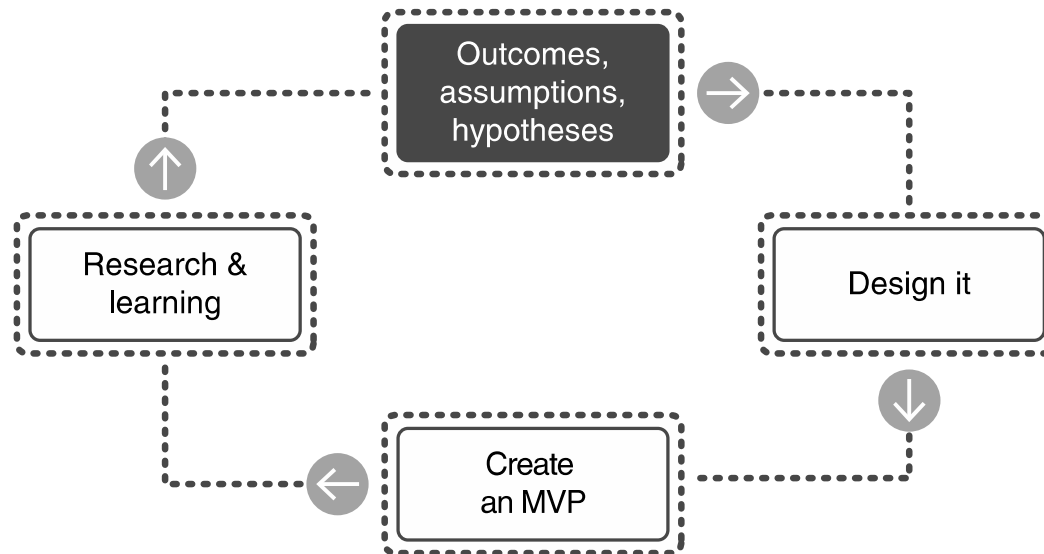
- All techniques in UX are still relevant, but when to use and how much needs careful planning
 - Focus on product, not design, as deliverable
 - Cross-functional teams
- Three practical areas: user research, aligning work practices, and documentation

User research

- Seeks to characterize users, tasks, and context through data gathering and analysis
- Detailed user research cannot be fitted within a limited timebox
 - Some user research can be performed in iteration 0 (zero), before implementation starts
 - Ongoing program of user research over a longer period of time

LeanUX

- Create and deploy products quickly to get real user feedback for future developments
- Tight iterations of build-measure-learn
- Minimum viable product tests assumptions

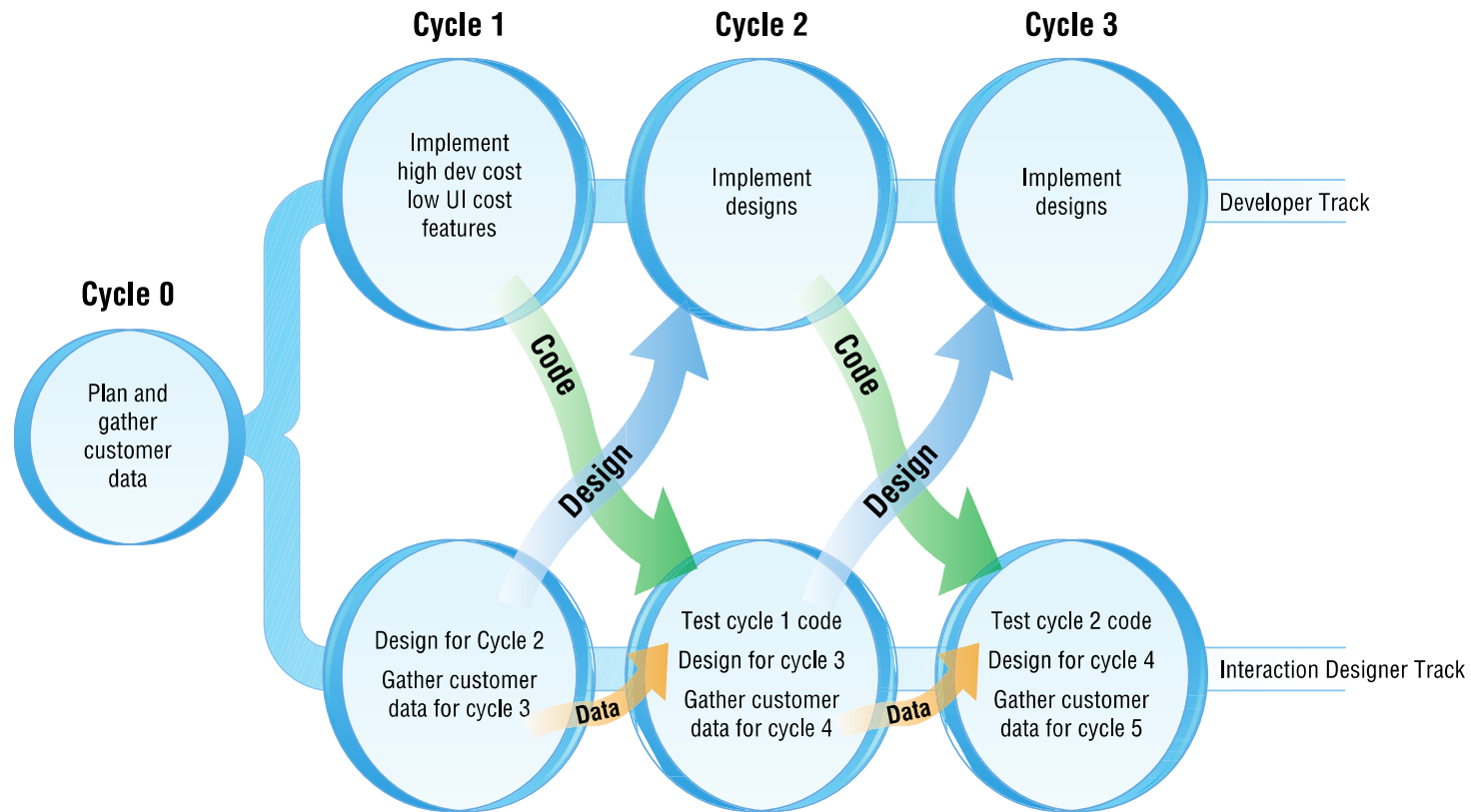


Source: Gothelf, J. with J. Seiden (2016) Lean UX, 2nd edition, O'Reilly.

Aligning work practices

- Designing a complete product upfront causes problems because of re-prioritization
- Some upfront work is needed (technical and UX)
- Use a parallel tracks approach:
 - Create product vision before development starts
 - Do design work one iteration ahead of development
 - Some teams work two iterations ahead

Parallel tracks approach to AgileUX



Source: Sy, D. (2007) Adapting usability investigations for development, *Journal of Usability Studies* 2(3), May, 112–130. [User Experience Professionals Association](http://www.id-book.com).

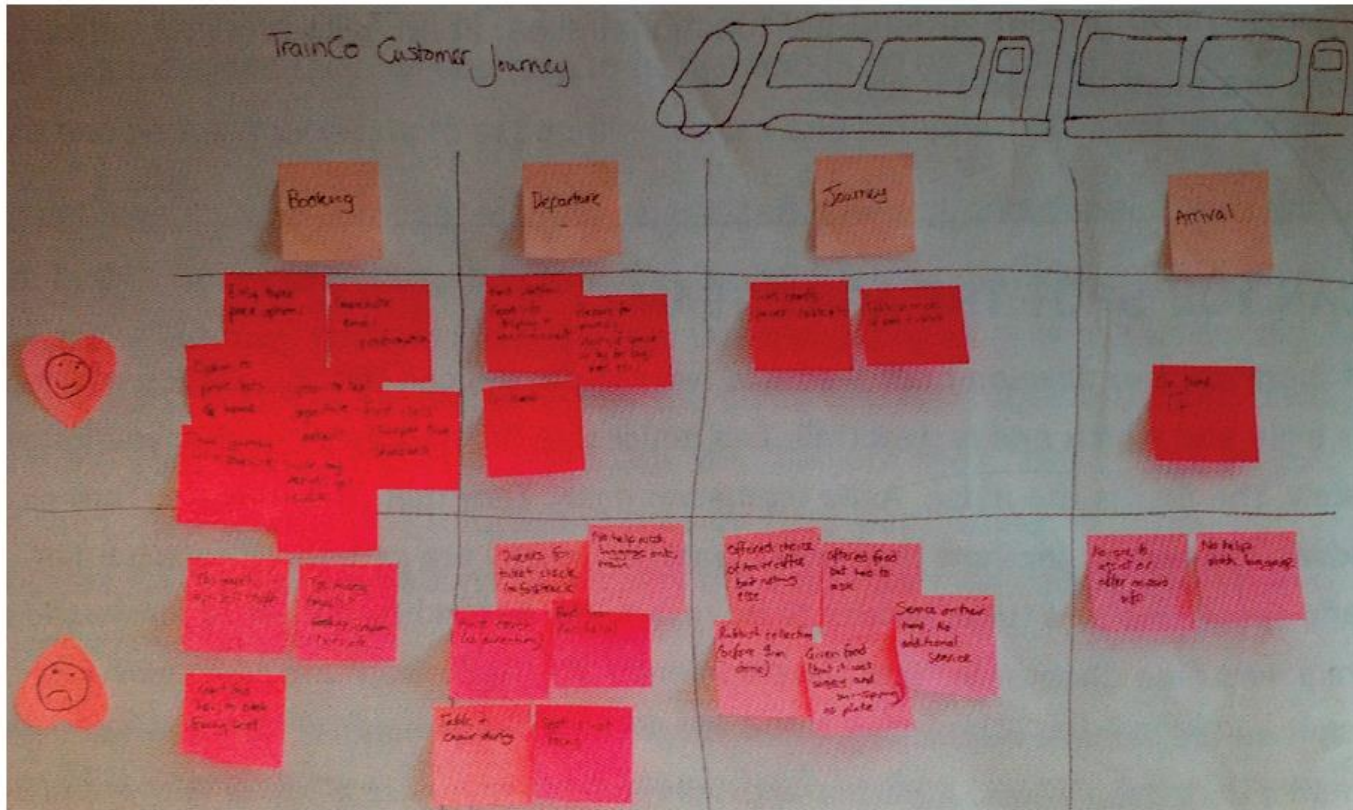
Aligning work practices

- Advantages of parallel tracks approach:
 - No design time wasted on features not implemented
 - Usability testing and contextual inquiry could be done on the same customer visit, saving time
 - Timely feedback on the designs was received from developers and customers
 - Agile flexibility supports schedule changes if a problem is found
- Parallel tracks is commonly used

Documentation

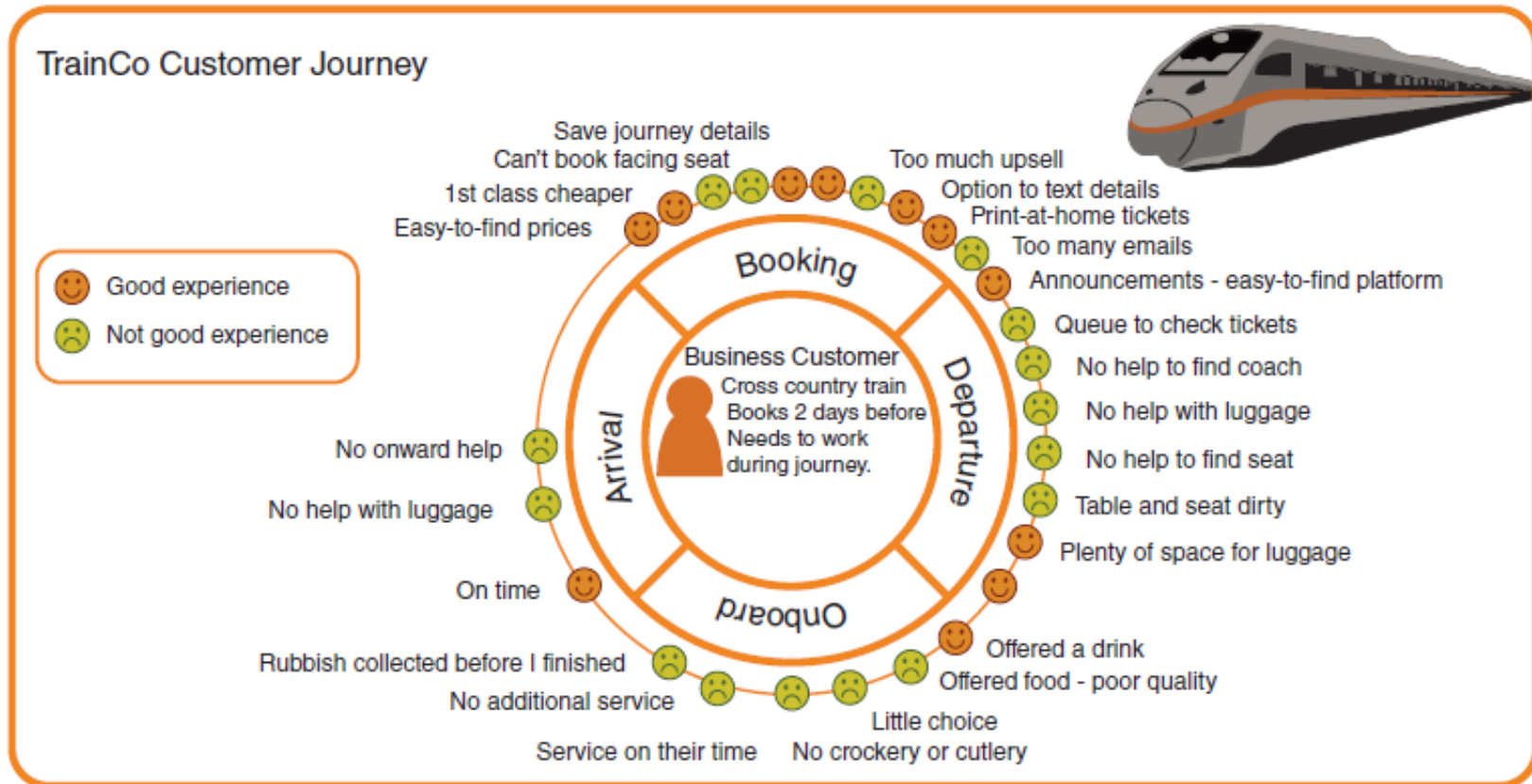
- Common communication approach for UX designers
- Agile encourages minimal documentation so more time can be spent on design and discussion
- Only use documentation where needed. Ask:
 - Can the amount of time spent on documentation be reduced?
 - Who uses documentation?
 - What is the minimum needed by customers?
 - How efficient is the sign-off process?
 - Is there duplication anywhere?
 - How polished does documentation need to be?

Documentation: How polished? (low fidelity)



Source: Ratcliffe, L. and McNeill, M. (2012) Agile Experience Design. New Riders.

Documentation: how polished? (high fidelity)



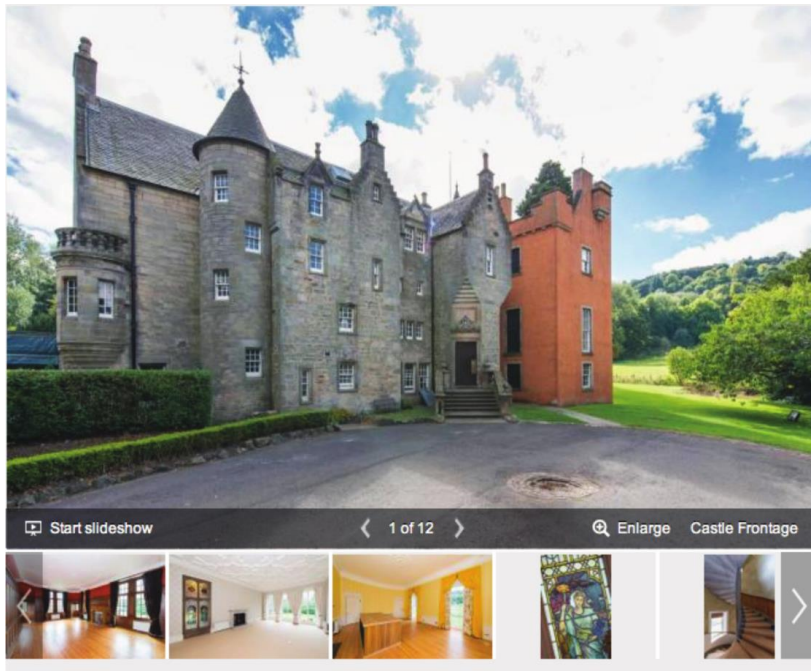
Source: Ratcliffe, L. and McNeill, M. (2012) Agile Experience Design. New Riders.

Design Patterns

- Capture design experience:
 - A solution to a problem in a context
 - Can be instantiated in many ways: generative
- Patterns may be individual, in languages, in catalogues, galleries, or libraries
- Patterns often are associated with software components, for example, GitHub or platform websites

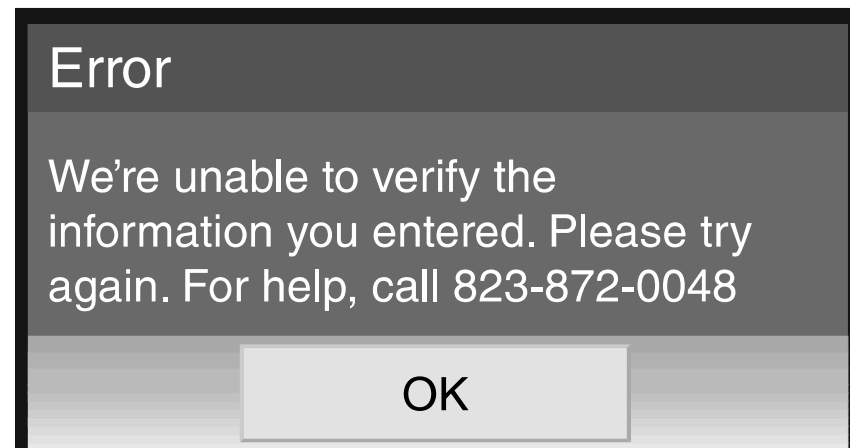
Design Patterns: Carousel

Carousel pattern as example



Bad Design Patterns

- Capture design experience – but that doesn't necessarily mean good design:
 - Anti-patterns: Don't do it this way!



- Dark patterns: deliberate tricks

Open Source Resources

- Components, frameworks, systems available free of charge
- Community-driven
- Available for interaction design:
 - Design pattern libraries
 - Bootstrap framework

Open Source Resources



Source: Didier Garcia/Larson Associates

Tools for Interaction Design

- Tools support all aspects of the design process:
 - Creativity, sketching, simulation, brainstorming, library search, mind mapping, and video capture
- Tools integrate together to speed up prototyping
- Tooling landscape changes all the time
- Interactive wireframes or mockups can be produced using, for example:
 - Moqup©
 - Balsamiq©
 - Axure©
- Higher-fidelity prototypes can be produced by linking interactive wireframes to design pattern library with software components

Summary

- AgileUX refers to approaches that integrate UX design and agile development
 - Needs a balance between research and reflection, and rapid iterations
 - Requirements are repeatedly re-prioritized, which seeks to avoid wasted effort
 - UX design activities need careful planning: when, how much, and how to take forward
- Design patterns and implementation libraries support good user experience design
- Open source resources, for example, on GitHub, make development of standard applications easier and quicker
- A range of automated tools to support interaction design in practice is available