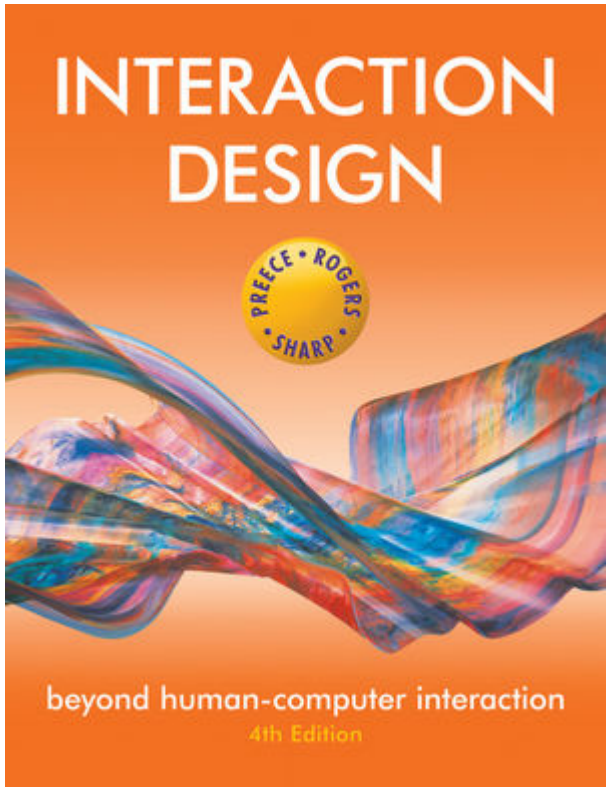
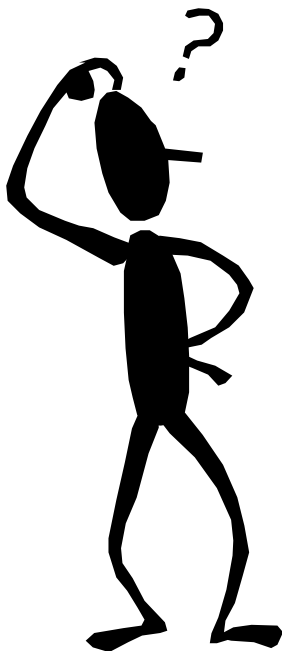


Chapter 12

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-prioritisation of work based on customer/user so that emergent requirements can be handled
- Many approaches, e.g. eXtreme Programming (XP), Scrum, DSDM

AgileUX

- Integrates techniques from interaction design and Agile software development
- AgileUX requires a change of mindset
- In Agile, as implementation proceeds:
  - requirements are elaborated
  - requirements are re-prioritised
- All techniques in UX are still relevant but when and how much needs re-thinking
  - focus on product, not design, as deliverable
  - cross-functional teams
- Three practical areas: user research, aligning work practices, documentation

User research

- Aims to characterise users through data collection and analysis
- Agile's timeboxing approach does not support long periods of user research
- User evaluations and some detailed work can be fitted within a timebox
- Some user research can be performed in iteration 0 (zero), before implementation starts
- Ongoing programme of user research

Aligning work practices

- Designing a complete product upfront causes problems because of re-prioritisation
- 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

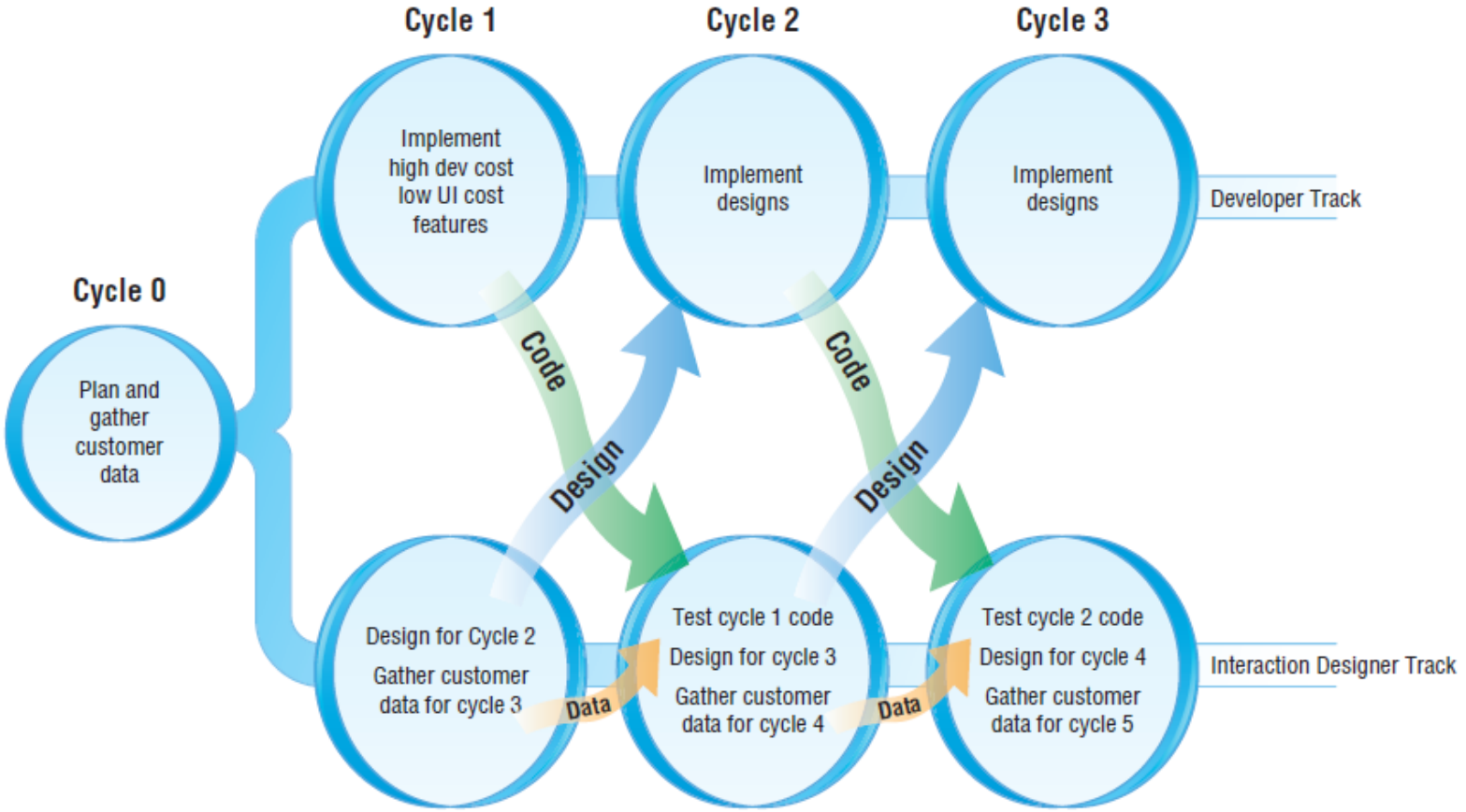


Figure 12.2 Cycle 0 and its relationship to later cycles

Source: Sy, D. (2007) Adapting usability investigations for development, *Journal of Usability Studies* 2(3), May, 112–130. User Experience Professionals Association.

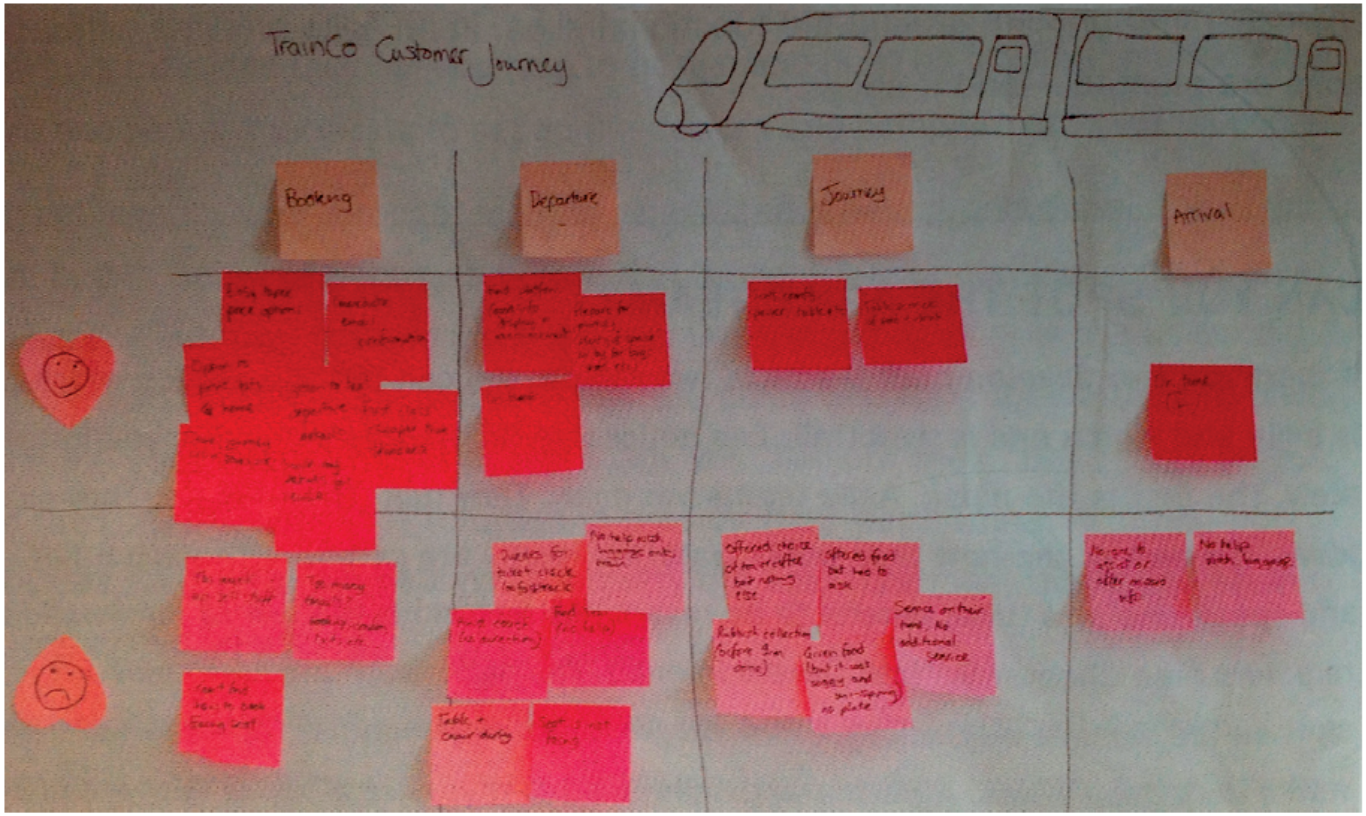
Aligning work practices

- 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

- Most common communication approach for UX designers
- Agile discourages this kind of communication, in favour of discussion
- Only use documentation where needed. Ask:
  - Who will read it?
  - Who will use it?
  - What is the minimum needed?
  - Is there duplication anywhere?
  - How polished does it need to be?

Documentation: how polished?

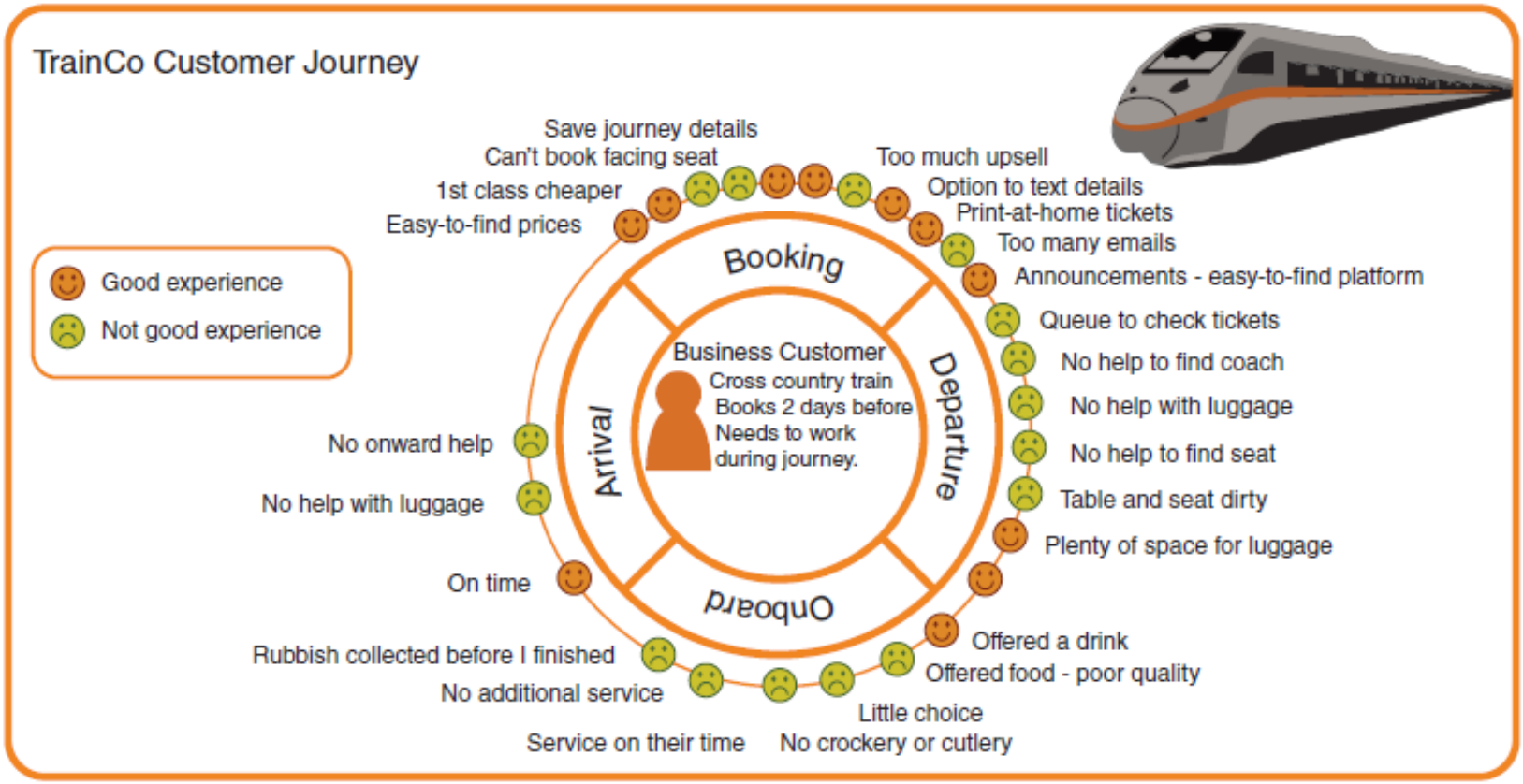


(a)

Figure 12.3 (a) A low-fidelity user journey

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

Documentation: how polished?



(b)

(b) A high-fidelity user journey

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, e.g. Github or platform websites
- Carousel pattern as example:

Design Patterns

(a)

Figure 12.5 Two example carousel navigation styles (a) showing pictures of a house for sale. Note the arrows to the left and right of the row of photos at the bottom.

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

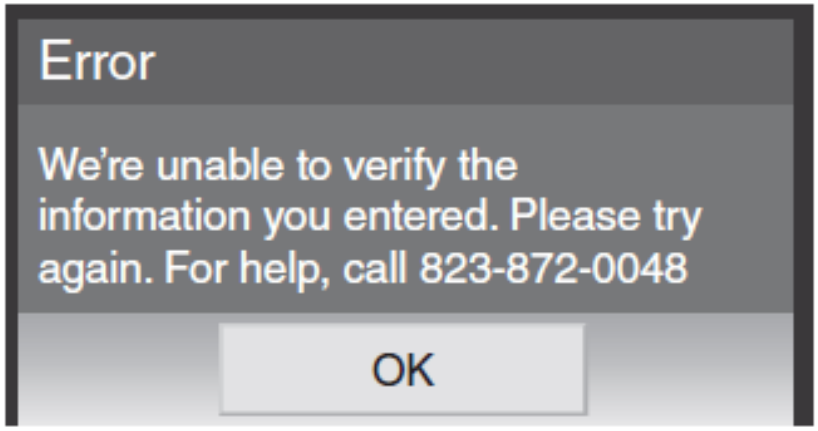


Figure 12.6 An untappable phone number for help when smartphone installation goes wrong

Open Source Resources

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

Open Source Resources

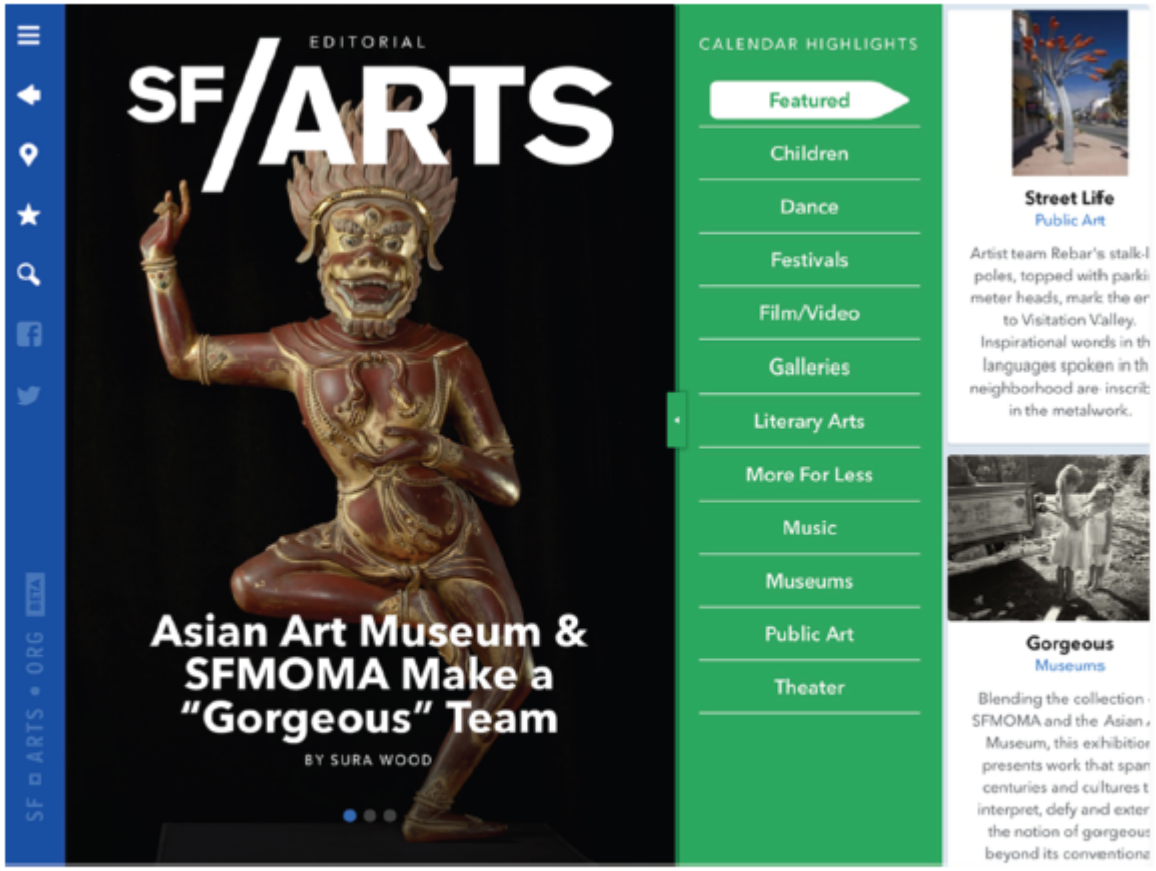


Figure 12.7 An example website built using the Bootstrap framework http://www.sfarts.org.

Source: Didier Garcia/Larson Associates.

Tools for Interaction Design

- Tools support all aspects of the design process:
  - creativity, sketching, simulation, brainstorming, library search, mindmapping, video capture
- Tools integrate together to speed up prototyping
- Interactive wireframes or mockups can be produced using, e.g.
  - Balsamiq©
  - Axure©
- Higher fidelity prototype can be produced by linking interactive wireframe to design pattern library with software components

Summary

- AgileUX refers to approaches that integrate UX design and agile development
  - it requires a change in mindset by designers and developers
  - requirements are repeatedly re-prioritised, which aims to avoid wasted effort
  - UX design activities need rethinking: when, how much, and how to take forward
- Design patterns present a solution to a problem in a context
- Open source resources, e.g. on Github, make development of standard applications easier and quicker
- A range of automated tools to support interaction design in practice is available