Summary of Design Lessons from
The Thoughtless Design of Everyday Things
by Karl Wiegers

General

#1.   Focus design on usage, not on product features.
#2.   Design demands iteration.
#3.   Involve real users.
#4.   Certain combinations of design-for attributes present inescapable trade-offs.
#5.   Usability design should accommodate both novice and expert users when relevant.

Design Principle #1: Make the product easy and obvious to use.

#6.   Small design problems can interact to yield unexpectedly significant results.
#7.   Present the user only with unambiguous and useful options.
#8.   When choosing among design trade-offs, provide the maximum benefit to the maximum number of people.
#9.   Understand your target audience well enough to anticipate what they will consider to be intuitive.
#10.   Ensure that the user won't be surprised with unexpected and undesired behavior.
#11.   If you change the state of the user's system, restore the original configuration when appropriate.
#12.   Use context to activate relevant functions.
#13.   A new and unobvious design for a familiar device can frustrate users.
#14.   Let the user take necessary actions in context.
#15.   Provide customers with specific documentation for a particular product.
#16.   Have your documentation reviewed by a fluent speaker of the language in which it's written.
#17.   Provide detailed indexes and rich search capabilities for user manuals.

Design Principle #2: Consider realistic usage scenarios.

#18.   Design the product to perform well in a wide range of realistic usage contexts.
#19.   Override default construction patterns based on actual anticipated building usage
#20.   Select appropriate user interface controls based on the number of user-selectable options
#21.   Make common operations easy to perform.
#22.   Consider the full spectrum of both deliberate and accidental usage when positioning components.
#23.   Design to protect against harmful, dangerous, or destructive users and usage scenarios.

Design Principle #3: Consider a wide range of usage environments.

#24. Ensure the design's usability and safety in a wide range of environments and conditions.
#25. Provide multiple forms of sensing to accommodate diverse lighting conditions.
#26. Understand the capabilities and limitations of the operational environments to ensure the product can be used in them.

Design Principle #4: Make it hard to make a mistake.

#27. Make products easy to use correctly and hard to use incorrectly.
#28. Detect unsatisfied preconditions and erroneous inputs early so the user doesn't waste time on a task they cannot complete.
#29. Notify users of invalid input immediately, clearly describe the problem, and guide them to correct it.
#30. Employ physical or logical constraints to make it impossible for the user to make a mistake.
#31. Provide input controls and processing to minimize the need to report errors.
#32. Make it very hard for a user to take a destructive action by mistake.
#33. Give the user options to exit from a task or to return to a previous step.
#34. Anticipate errors that users might commonly make, assess the user's intent when possible, and help users recover from the errors.
#35. Design device controls that the user can easily distinguish by both sight and touch.

Design Principle #5: Provide meaningful feedback.

#36. Instructions, help displays, and error messages should all match the product.
#37. Communicate input instructions and constraints up front.
#38. Don't waste the user's time and attention with meaningless feedback.
#39. Phrase dialogs to ensure the implications of all options are clear.
#40. Craft messages both to inform the user of a problem and to help them solve the problem.
#41. Trap software errors and provide meaningful descriptions with recovery guidance.
#42. Let the user decide when to clear a message.

Design Principle #6: Don't waste the user's time.

#43. Make it easy for users to access the tasks they perform most frequently.
#44. Let the user take the fewest possible actions to perform a task.
#45. Do not offer the user inapplicable options.
#46. Try using your own product before you inflict it on others.
#47. Make complex user interfaces quickly usable by novices, who can then gradually increase the functionality they exploit.
#48. Provide the user with task options early and in context to minimize the steps required.

Design Principle #7: Design for the user's convenience.

#49. A product that is used as intended should never cause the user harm.
#50. Watch users employ current products to learn how to make them easier to use and more effective.
#51. Let the user customize as much of the product's behavior as they wish.
#52. Have the computer do as much work as possible to enhance the user's convenience.
#53. Provide all pertinent information to the user.
#54. Provide reference points to make indicators meaningful.
#55. Design products to tolerate both technical faults and unexpected, imprecise human behavior.
#56. Digital isn't superior to analog when it reduces the user's control.
#57. Design packaging that customers can open easily and safely.
#58. Design for the benefit of the consumer over that of the business.
#59. Be clear and honest about fees and commitments associated with offers you make to customers.

Design Principle #8: Accommodate the range of human variation.

#60. Design to accommodate the range of characteristics, capabilities, and limitations of the product's users.
#61. Use multiple sensory channels to enable usage by people of all abilities.
#62. Consider ergonomics and human anatomy, including size and strength, when designing physical products.
#63. Any item that must be turned should depart from a circular shape and have a textured surface.

Design Principle #9: Place the minimum mental burden on the user.

#64. Minimize user perplexity.
#65. Conform to established standards and conventions.
#66. Make functionality shared by members of a product family consistent.
#67. Use consistent labels for analogous functions.
#68. Make controls logically fit the words and conventions we use to describe device behaviors.

Practices for thoughtful design

#69. Identify the individuals who will provide the voice of the customer for each user class.
#70. Design systems as integrated wholes.