References

User Interface Design For Programmers, Joel Spolsky,
http://www.joelonsoftware.com/uibook/fog0000000249.html
Android Screen Sizes in Pixels

- 240*320: Tattoo, LG Etna*, Lancaster*, Heron*
- 320*480: G1, Hero, Pulse, Magic, Galaxy, CLIQ, Moment, Belold 2*, Calgary*, Galaxy lite*
- 360*640: 240*320
- 400*800: 320*480
- 480*854: 360*640
- 480*800: 400*800
- 480*854: 480*854

* rumored or not released

Classic Software Development Mistakes

People-Related Mistakes
Process-Related Mistakes
Product-Related Mistakes
Technology-Related Mistakes
People-Related Mistakes

1. Undermined motivation
2. Weak personnel
3. Uncontrolled problem employees
4. Heroics
5. Adding people to a late project
6. Noisy, crowded offices
7. Friction between developers and customers
8. Unrealistic expectations
9. Lack of effective project sponsorship
10. Lack of stakeholder buy-in
11. Lack of user input
12. Politics placed over substance
13. Wishful thinking
Process-Related Mistakes

14. Overly optimistic schedules
16. Insufficient risk management
17. Contractor failure Insufficient planning
18. Abandonment of planning under pressure
19. Wasted time during the fuzzy front end
20. Shortchanged upstream activities
21. Inadequate design
22. Shortchanged quality assurance
23. Insufficient management controls
24. Premature or too frequent convergence
25. Omitting necessary tasks from estimates
26. Planning to catch up later
27. Code-like-hell programming
Product-Related Mistakes

28. Requirements gold-plating
29. Feature creep
30. Developer gold-plating
31. Push me, pull me negotiation
32. Research-oriented development
Technology-Related Mistakes

33. Silver-bullet syndrome
34. Overestimated savings from new tools or methods
35. Switching tools in the middle of a project
36. Lack of automated source-code control
One Agile Development Practice

Customer ranks features in order of importance

Developer estimates development time per feature

Features implemented per iteration
  Important features first
  Only those features that fit in to the iteration period
Another Agile Development Practice

Always have a working program
Paper Prototype
User Interface Design For Programmers
A user interface is well-designed when the program behaves exactly how the user thought it would.
Importing photos from a digital camera
Who is your user?

Patricia is an English professor who has written several well-received books of poetry. She has been using computers for word processing since 1980, although the only two programs she ever used are Nota Bene (an ancient academic word processor) and Microsoft Word. She doesn't want to spend time learning the theory of how the computer works, and she tends to store all her documents in whatever directory they would go in if you didn't know about directories.
What does the user expect?

What is their mental model of the computer/application
Ask them
Perform usability studies
Choices

Every time you provide an option, you're asking the user to make a decision.

Image from http://www.joelonsoftware.com/uibook/fog0000000249.html
Metaphors
Affordance
Consistency
Designing for People Who Have Better Things To Do With Their Lives

Users Don't Read the Manual

Users don't read anything
Configure Modem

The modems Juno found on your computer are listed below. Please click on the name of the modem you would like to use to connect to Juno. If you would like to add, remove, or configure a modem, click the 'Manage Modems' button. If there are no modems displayed, you will need to install a modem (by clicking on the 'Manage Modems' button) or connect to Juno over a network to be able to sign up and/or use Juno.

Modems

ThinkPad Modem

[Buttons: Manage Modems... Refresh List Turn off modem speaker]

[Buttons: OK Cancel Help]
Users can't use the mouse
Six steps for designing good software

Invent some users

Figure out the important activities

Figure out the user model

Sketch out the first draft of the design

Iterate over your design again and again

Watch real humans trying to use your software.