SUMMARY

In the Introduction, I stated that applying interaction design guidelines in real designs is not simple and mindless. Constraints happen and force tradeoffs. Sometimes designers have to violate one guideline to follow another one, so they must be able to determine which guideline takes precedence in that situation.

That’s why interaction design is a skill, not something that anyone can do by following a recipe. Learning that skill amounts to learning not only what the design guidelines are but also how to recognize which rules to follow in each design situation.

The purpose of this book was to provide a brief background in the human perceptual and cognitive psychology that underlies interaction design guidelines. Now that you have that background knowledge, hopefully any user interface guidelines you have been following will make more sense—they should no longer seem like arbitrary edicts by some user interface guru. It should also now be clearer that the basis of all sets of user interface design guidelines (see the Appendix) is the same. Finally, you are now better equipped to interpret, trade off, and apply user interface design guidelines in real-world design situations.

CAVEAT

Technology—especially computer technology—advances quickly. The state of the art of computer-based interactive systems changes so quickly that it is difficult to get a book out before some of the technologies and designs mentioned in it are obsolete.

On the other hand, the fundamentals of how people perceive, learn, and think do not change quickly. The basic operations of human perception and cognition
have remained fairly stable for tens—perhaps even hundreds—of thousands of years. In the long term, human perceptual and cognitive function will continue to evolve, but not in the time span during which this book will be in circulation. However, people already use technology to improve our perception, memory, and reasoning; that trend will continue. Thus, human perception and thinking will change in a matter of decades, as our tools proliferate and improve and our reliance on them increases.

On the third hand, humanity’s knowledge of human perception and cognition is, like computer technology, advancing rapidly. The past 20 years, especially, have seen a tremendous surge in our understanding of how the human brain works, aided by research tools such as functional MRI, eye-tracking systems, and neural network simulations. This has allowed cognitive psychology to move beyond “black box” models that merely predicted behavior to ones that explain how the brain processes and stores information and produces behavior. In this book, I have tried to digest and present some of these exciting new findings because of their value to designers. I do this knowing that, like the state of the art of computer technology, the state of knowledge of human cognitive/perceptual psychology will continue to advance, possibly rendering some of what the book says obsolete. It is better for designers to proceed using mostly correct knowledge of how people perceive and think than to design with no knowledge.