

11.7 Support for Design

From reading this chapter, you may have got the impression that designers create their designs from scratch with little or no help from anyone except users and immediate colleagues, but this is far from the truth. There is a range of automated tools to support the construction of prototypes, wireframes, interface sketches, icon design, and so on, together with support for specific sets of guidelines. There is also a range of existing components – from screen widgets and source code libraries to full systems, and from motors and sensors to complete robots – that can be modified and integrated to generate prototypes or full products. For example, the LilyPad Arduino kit was developed by Leah Beuchley (see Figure 11.23 and interview at end of Chapter 6) and is a set of sewable electronic components for building fashionable clothing.

In this section we give you a flavor of the different kinds of support available for design.

11.7.1 Design Patterns for Interaction Design

Design patterns capture experience, but they have a different structure and a different philosophy from other forms of guidance or specific methods. One of the intentions of the patterns community is to create a vocabulary, based on the names of the patterns, that designers can use to communicate with one another and with users. Another is to produce a literature in the field that documents experience in a compelling form.

The idea of patterns was first proposed by Christopher Alexander, a British architect who described patterns in architecture. His hope was to capture the ‘quality without a name’ that is recognizable in something when you know it is good.

But what is a *pattern*? One simple definition is that it is a solution to a problem in a context, i.e. a pattern describes a problem, a solution, and where this solution has been found



Figure 11.23 The LilyPad Arduino kit. It comprises sensors, actuator boards, and conductive thread. Online tutorials are available that enable anyone to build their own (see web.media.mit.edu/~leah/LilyPad/build/turn_signal_jacket.html)