
The interaction design process

Interaction design is an iterative process where users interact with designers and interface prototypes to decide on the features, organisation and 'look and feel' of the system user interface. Sometimes, the interface is separately prototyped in parallel with other software engineering activities. More commonly, especially where iterative development is used, the interaction design proceeds incrementally as the software is developed. In both cases, however, before you start programming, you should have developed and, ideally, tested some paper-based designs. The overall interaction design process is illustrated in Figure 29.13. There are three core activities in this process:

- **User analysis** In the user analysis process, you develop an understanding of the tasks that users do, their working environment, the other systems that they use, how they interact with other people in their work and so on. For products with a diverse range of users, you have to try to develop this understanding through focus groups, trials with potential users and similar exercises.
- **System prototyping** Interaction design and development is an iterative process. Although users may talk about the facilities they need from an interface, it is very difficult for them to be specific until they see something

Jane is a religious studies student writing an essay on Indian architecture and how it has been influenced by religious practices. To help her understand this, she would like to access pictures of details on notable buildings but can't find anything in her local library. She approaches the subject librarian to discuss her needs and he suggests search terms that she might use. He also suggests libraries in New Delhi and London that might have this material, so he and Jane log on to the library catalogues and search using these terms. They find some source material and place a request for photocopies of the pictures with architectural details, to be posted directly to Jane.

tangible. Therefore, you have to develop prototype systems and expose them to users, who can then guide the evolution of the interface.

- Interface evaluation Although you will obviously have discussions with users during the prototyping process, you should also have a more formalised evaluation activity where you collect information about the users' actual experience with the interface.

The scheduling of interaction design within the software process depends, to some extent, on other activities. Prototyping may be used as part of the requirements engineering process and, in this case, it makes sense to start the interaction design at that stage. In iterative processes, discussed in Chapters 2 and 3, user interface design is integrated with the software development. Like the software itself, the user interface and user interactions may have to be refactored and redesigned during development.