Module-5

User Documentation and Online Help

Topic Covered

User Documentation and Online Help
Introduction, Online versus paper documentation, Reading from paper versus Displays, Shaping the content of the Manuals, Accessing the Documentation, Online Tutorials and animated demonstrations, Online Communities for User Assistance, The Development Process.

Information Search and Visualization
Introduction, Search in Textual Documents and Database Querying, Multimedia document searches, Advanced filtering and Search Interfaces, Information Visualization: Introduction, Data tyoe by task taxonomy, Challenges for information visualization.

User Documentation and Online Help

Introduction

- When it comes to learning about computer systems many people experience anxiety, frustration, and disappointment
- Even though increasing attention is being paid to improving interface design, complex systems can still benefit both paper and online help
- Forms of paper user manuals:
  - Install manual
  - Brief getting-started notes
  - Introductory tutorial
  - Thorough tutorial
  - Detailed reference manual
  - Quick reference card
  - Conversation manual
- Online materials
  - Online manual
  - Online help
  - Context-sensitive help
  - Online tutorial
  - Animated demonstration
  - Guides
  - FAQs
  - Online communities, newsgroups, list servers, e-mail, chat, and instant Messaging

Taxonomy of user documentation, online help, and tutorials

Domain covered by help system
- Description of interface objects and actions (syntactic)
- Sequences of actions to accomplish tasks (semantic)
- Task-domain–specific knowledge (pragmatic)

Degree of integration in the interface (from less to more integrated)
- Online documentation and tutorial: independent interface, even possibly developed by a different company
- Online help: integrated into the interface, separate window usually invoked from a "help" button
- Context-sensitive help: a) user-controlled—depends on where the user points (pop-up box, balloon, tool tip, or ScreenTip), or b) system initiated—the system makes suggestions and sometimes takes action
- Animated demonstrations: usually integrated into the interface

Time of intervention
- Before starting (quick guide, manual, and tutorial)
- At the beginning of the interaction (getting started, animated demonstration)
- During the task (context sensitive, either user- or system-initiated help)
- After failure (help button, FAQs)
- When the user returns the next time (start-up tips)

Media
- Text (paragraphs, with a list of steps)
- Graphics (screen prints can illustrate explanations)
- Voice recording
- Video recording of someone using the interface
- Animation
- Recording of the interface itself in action, with or without annotations
- Simulation environments for computer-based training

Extensibility
- Closed system
- Users can add more information (annotations, synonyms, or translations)

Online versus paper documentation

There are many reasons to have online manuals

1. ***Physical advantage:***
   - Information is available whenever the information appliance or computer is available. The harsh reality is that many users lose their paper manuals or do not keep them current with new versions of the software.
   - Users do not need to allocate physical workspace to opening up manuals. Paper manuals can be clumsy to use and can clutter a workspace.
   - Information can be electronically updated rapidly and at low cost.
2. ***Navigation features***
   - Specific information necessary for a task can be located rapidly if the online manuals offer indexes, tables of contents, lists of figures, glossaries, and lists of keyboard shortcuts.
   - Searching for one page in hundreds can usually be done much more quickly on a computer than in a paper manual.
   - Linking within texts can guide readers to related materials; linking to external materials such as dictionaries, encyclopedias, translations, and web resources can facilitate understanding.

3. ***Interactive services***
   - Readers can bookmark and annotate the text and send text and annotations by e-mail.
   - Authors can use graphics, sound, color, and animations that may be helpful in explaining complex actions and creating an engaging experience for users.
   - Readers can turn to newsgroups, listservers, online communities, e-mail; chat, and instant messaging for further help from other users.
   - Blind users (or busy users on the move) can use screen readers and listen to instructions.
4. ***Economic advantages***
   - Online manuals are cheaper to duplicate and distribute than paper manuals.

However, these advantages can be compromised by potentially serious negative side effects

- Displays may not be as readable as paper manuals
- Each display may contain substantially less information than a sheet of paper
- The user interface of online help systems may be novel and confusing to novices
- The extra mental effort required for navigating through many screen may interfere with concentration and learning, and annotation can be difficult
- Splitting the display between work and help or tutorial windows reduces the space for work displays
- Small devices such as cell phones do not have enough display space to provide online help

Reading from paper versus Displays

- The technology of printing text on paper has been evolving for more than 500 years. The paper surface and color, the typeface, character width, letter sharpness, text contrast with the paper, width of the text column, size of margins, spacing between lines, and even room lighting all have been explored in efforts to produce the most appealing and readable format.
- **Potential Disadvantages in Reading from Displays:**
  - *Fonts* may be poor, especially on low-resolution displays. The dots composing the letters may be so large that each is visible, making users expend effort to recognize characters.
  - *Low contrast* between the characters and the background and *fUZZY character boundaries* also can cause trouble.
  - *Emitted light* from displays may be more difficult to read by than reflected light from paper
  - *Small displays* require frequent *page turning;* issuing the page-turning commands is disruptive, and the page turns are unsettling, especially if they are slow and visually distracting.
  - *Reading distance* is easily adjustable for paper, while most displays are *fixed* in place, and display *placement* may be too high for comfortable reading
  - *Layout and formatting* can be problems-for example, improper margins, inappropriate line widths (35 to 55 characters is recommended)
  - *Reduced hand and body motion* with fixed-position displays, as compared to paper, may be more fatiguing.
  - *Unfamiliarity of displays* and the *anxiety* of navigating the text can increase stress.

Shaping the content of the Manuals

- Traditionally, training and reference material often written by junior member of development team
  - manuals were often poorly written
  - were not suited to the background of the users
  - were delayed or incomplete
  - were not tested adequately
- The benefits of well-designed manuals include shorter learning times, better user performance, increased user satisfaction, and few calls for support

Choose an action-oriented approach

- Provide an immediate opportunity to act.
- Encourage and support exploration and innovation.
- Respect the integrity of the user's activity.
- Show numerous examples.

Let users' tasks guide organization

- Select or design instructional activities that are real tasks.
- Present task concepts before interface objects and actions.
- Create components of instructions that reflect the task structure.

Support error recognition and recovery

- Prevent mistakes whenever possible.
- Provide error information when actions are error-prone or correction is difficult.
- Provide error information that supports detection, diagnosis, and correction.
- Provide on-the-spot error information.

Support reading to do, study, and locate

- Be brief; don't spell out everything.
- Provide a table of contents, index, and glossary.
- Keep the writing style clean and simple.
- Provide closure for chapters.

Towards minimal manuals

- Minimal manuals encourage active involvement with hands-on experiences
- Carroll's *guided exploration*
  - choose an action-oriented approach
  - anchor the tool in the task domain
  - support error recognition and recovery
  - support reading to do, study, and locate
- Show numerous well-chosen screen prints that demonstrate typical uses (*predictive model*)
- Table of contents and index required
- Glossaries for clarifying technical terms
- Appendices for error messages