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**

Introduction

- **Online materials**
  - **Online manual**
  - **Online help**
  - **Context-sensitive help**
  - **Online tutorial**
  - **Animated demonstration**
  - **Guides**
  - **FAQs**
  - **Online communities, newsgroups, listservers, e-mail, chat, and instant messaging**

User's Goal	**Paper**	**Online**
I want to *buy* it	Sales brochure, fact sheet	Animated demonstration
I want to *learn* it	Tutorial	Manual, tutorial, guide, animated demonstration
I want to *use* it	User manual	Manual, help, context-sensitive help
I want to *solve* a problem	FAQ	Help, FAQ, online community

Paper versus online manuals

- **There are many reasons to have online manuals**
  - Physical advantages
  - Navigation features
  - Interactive services
  - Economic advantages
- **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

User manual guidelines based on practice and empirical studies

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.

Organization and writing style

- Precise statement of educational objectives
- Present concepts in a logical sequence with increasing order of difficulty
- Ensure that each concept is used in subsequent sections
- Avoid forward references
- Construct sections with approximately equal amounts of new material
- Need sufficient examples and complete sample sessions
- Choice of words and phrases important
- Style guides for organizations attempt to ensure consistency and high quality
- Writing style should match users' reading ability

Online manuals and help

- **Kearsley's guidelines for online help systems:**
  - **Make the help system easy to access and easy to return from.**
  - **Make help as specific as possible.**
  - **Collect data to determine what help is needed.**
  - **Give users as much control as possible over the help system.**
  - **Make help messages accurate and complete.**
  - **Do not use help to compensate for poor interface design.**

Online manuals and help

- **Online Manuals**
  - **Reproduction of printed manuals online**
    - **paper page layouts may not convert well**
    - **dealing with figures problematic**
    - **attractive if users have large enough display (full page)**
    - **close match between printed and online versions useful**
  - **Enhanced by special online features**
    - **string search**
    - **multiple indices**
    - **multiple tables of contents**
    - **tables of figures**
    - **electronic bookmarks**
    - **electronic annotations**
    - **hypertext traversal**
    - **automatic history keeping**

Online manuals and help

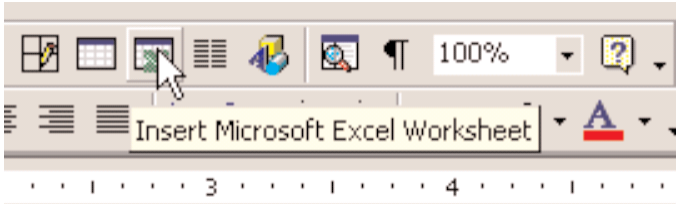
- **Online Manuals (cont.)**
  - **Most effective if manuals redesigned to fit electronic medium to take advantage of**
    - **multiple windows**
    - **text highlighting**
    - **color**
    - **sound**
    - **animation**
    - **string search with relevance feedback**
  - **Properly designed table of contents that can remain visible to side of text page vital**
  - **Novices need tutorials**
  - **Intermittent knowledgeable users can handle concise descriptions of interface syntax and semantics**
  - **Keyword lists improved by clustering into meaningful categories**

Online manuals and help

- **Online Help**
  - **Traditionally, little information about how to assemble actions to perform tasks**
  - **Users expect to be able to search the full text of online documents**
  - **Expanding and contracting table of contents can be combined with search**
  - **The online help and support center for Microsoft Vista contains articles/topics and search options**
  - **An answer wizard can respond to natural language requests**

Online manuals and help

- **Context-sensitive help**
  - **User-controlled, interactive object help**
    - **Small pop-up box**
    - **Dedicated portion of the display**



  - **Intelligent help: users interaction history, a model of user population, and a representation of their tasks to make assumptions about what users want**
    - **Development of intelligent help systems face serious usability challenges**
  - **Hybrid approaches**
    - **Initiative is shared between the user and system**
    - **Unobtrusive advice from system, but requires space**

Online tutorials, demonstrations, and animations

- **Online tutorials**
  - **Does not have to keep shifting attention between the terminal and the instructional material**
  - **Practices the skills needed to use the system**
  - **Can work alone at an individual pace and without the embarrassment of mistakes made before a human instructor or fellow students**
  - **Start-up tips**

Online tutorials, demonstrations, and animations

- **Demonstration systems**
  - **Distributed on CD-ROM/DVD or over Internet**
  - **Designed to attract potential users**
  - **Typically show off system features using animation, color graphics, sound, etc.**
  - **User-interface requirements are to**
    - **capture and maintain user interest**
    - **convey information**
    - **build positive product image**
  - **Typical controls**
    - **automatic or manual pacing**
    - **length of demonstration (short versus in-depth)**
    - **stop, replay, skip**
  - **A screen capture animation is easy to produce with standard tools such as Camtasia**
  - **Games often have a 30 second demonstration**

Online communities for user assistance

- **Help networks using email**
  - **sent to designated help desk or staff person**
  - **sent to general list within organization**
  - **users must publicly expose their lack of knowledge**
  - **risk of getting incorrect advice**
- **Communal approach means low cost for software maintenance**
- **Microsoft actively encourages it**
- **Frequently asked questions (FAQ) lists for newcomers**

Development process guidelines

- Seek professional writers and copywriters.
- Prepare user documentation early (before implementation).
- Set up guidelines documents and coordinate and integrate across all involved departments.
- Review drafts thoroughly.
- Field-test early editions.
- Provide a feedback mechanisms for readers.
- Revise to reflect changes regularly.