Reprint of paper from *IPCC 2005 Proceedings*
the annual conference of the IEEE Professional
Communication Society. ©2005 IEEE.

Helping Users to Use Help: Results from Two International Conference Workshops

Stephanie Rosenbaum
Tec-Ed, Inc.
stephanie@teced.com

Laurie Kantner
Tec-Ed, Inc.
laurie@teced.com

Garett Dworman
Tec-Ed, Inc.
garett@teced.com

Abstract

All too often, users fail to use the help systems available to them. This paper presents the results of two workshops that drew members from the information and the interaction/interface design communities together, from four different countries, to focus on effective integration of help systems into users' environments.

Keywords: *help systems, information architecture, user interface design, embedded help*

Background

All too often, computer users fail to use the help systems available to them. This may be the fault of predecessor help systems, whose content or information architecture (IA) proved unhelpful. However, users also fail to use help systems that do contain useful and well-organized information. The cause may be not the help content and IA, but rather how users notice and access help systems.

The documentation and information architecture communities have written extensively about the structure and content of help systems, as well as on help delivery mechanisms. But even if architecture and content are perfectly suited to users' needs and tastes, a help system may still fail to engage users, because they don't interact with the help system in the first place.

A large body of existing literature addresses help systems, their implementation, and their integration into user environments. Some of this literature describes help system delivery mechanisms including context-sensitive help [8], hypertext help [15], task-oriented help [12], and dialog-based help [14]. Other literature provides advice on how to build help mechanisms based on principles of design and usability [1, 5, 13, 15] or research data [3, 6, 9].

Nevertheless, the authors believe that the challenge of getting users to access help still remains, in part because this is an issue of interaction and interface design, while most expertise (and literature) about help resides in the information communities of practice.

This paper summarizes the results of two workshops, held at the 2004 ACM SIGCHI and Usability Professionals' Association Conferences. The idea for the workshops emerged from the CHI 2003 SIG on Information Usability, where many participants expressed frustration with the difficulty of getting people to use a help system, even during usability assessments [16].

The workshops were attended by a total of 11 participants and three facilitators, and focused on the effective integration of help systems into users' environments. Our goals were to supplement the existing literature with insights and guidelines from the participants, and to

identify potential directions for new research that could validate, revise, or enhance the guidelines.

Defining the Help Access Problem

For the UPA and CHI workshops, participants submitted "position papers" in advance, which provided a basis for discussion throughout the workshop. We asked participants to provide at least one example of access mechanisms for a help system, with discussions of the strengths and weaknesses of each example.

One of the CHI workshop participants, Rolf Molich, had previously conceived and coordinated the comparative usability evaluation studies (CUE), where dozens of usability teams tested the same application [10]. The studies showed that usability test results are hard to reproduce, and that more focus should be put on quality assurance in usability work. Rolf suggested that these workshops continue the line of CUE studies by having all participants solve a realistic exercise in evaluating help access and then compare the different approaches.

Therefore, as part of the preparation for each workshop, the participants designed improvements to how users access the help information for the OneScreen reservation interface at the website *www.hotelpenn.com*. Our discussions of the exercise solutions led to some of the issues and conclusions of the workshops.

The position papers, the examples they described, and the design exercise elicited the following help access issues:

- Context sensitivity
- Ability to answer real user questions
- Integration into the user interface (UI)
- Access mechanisms
- Labeling of the access point
- Barrier of previous bad experiences
- Perception of help size
- Customization of help information

These qualities recurred throughout the discussions and fed into the guidelines and areas for research.

Major Issues Identified

The participants attending both workshops were a mixture of user experience designers, information architects, technical communicators, and usability specialists. Parallel and divergent issues emerged among the two workshops. Taken as a whole, the issues represent a core set of concerns about improving users' access to help.

Note: This paper uses the term "help" to refer concisely to the online information support at peoples' fingertips as they use technology products and services, including web-based applications. Many organizations are switching to the term "user assistance." Nomenclature is one of the issues discussed below.

Personas of Help Users

Every product or website has its specific audiences. Workshop attendees attempted to characterize help user personas to ensure that we were considering all kinds of relationships between users and help systems in considering the help access problem. The personas that made sense were users who:

- Are unaware help exists
- Never try help but are aware it exists
- Try help once or twice
- Frequently or always use help

To increase use of help through better access design, people who "always use help" might be considered the least critical persona. However, members of this group may become the "support persons" in their work areas because they seek knowledge from help systems. Improving access may assist them in training others to use help.

Types of Help

We can define help as descriptive support for functionality. Help content can be:

- Procedural information describing how to achieve a goal—for example, Word help describing how to make labels
- UI instructions on how to use a widget—for example, Penn Hotel's description of how to use its reservation calendar
- Domain information—for example, TurboTax help on tax codes

- Supplemental information—for example, a glossary
- Meta-instructions—help on how to use help

The boundary between functionality and descriptive support is important when organizing UI design work and prioritizing the importance of elements. Functionality receives top billing on the interface, whereas descriptive support may be one or more clicks away.

What is considered functionality versus descriptive support may depend on the user goals for the application. For example, TurboTax includes a large body of information about tax codes. If TurboTax user goals are limited to the completion of tax forms, then this tax code information is domain help and therefore descriptive support. However, if TurboTax's user goals include learning about tax codes, then this information may be considered functionality itself and receive more prominence on the user interface.

Help Access Mechanisms

Types of help access The UI boundary between an application and its help is fading as applications integrate help more seamlessly, through such access mechanisms as:

- Embedded help: Instructions labeling the UI itself
- Context-sensitive help: Instructions in a persistently visible Help pane or one click away that are relevant to the user's current location
- Hover help: Quick definitions or tips that appear temporarily when the user holds the mouse over a UI element
- Message help: System responses to user actions that contain complete information about the user's current situation and the means for moving forward

Traditional help system design assumes separate user steps for representing the problem, accessing the help system, and selecting a help topic [2]. However, help perceived as a separate "application" that must be "learned" and "navigated" dissuades people from accessing it.

Modes of help access For each type of help access, we can consider whether its access is user initiated (the user clicks or hovers), system initiated (the system displays a message), or built in (the information is already on-screen). These three modes of help initiation have analogous examples in how a professional conference provides assistance to attendees:

- User initiates help interaction: Analogous to when an attendee stops a conference volunteer to ask directions.
- System initiates help interaction: Analogous to a conference volunteer noticing an attendee looking confused and asking "do you need directions?"
- Built in (system anticipates help requirement): Analogous to conference signs providing directions for attendees.

Help that the system displays in an "embedded help pane" is, nonetheless, system-initiated. Users' acceptance of system-initiated help has not been high when it interrupts the task flow. While it can be argued that the embedded help pane does not interrupt the task flow, users must interrupt current tasks to see what the pane is offering.

Users refer to most types of help—procedural, supplemental, and instructional—to answer "quick questions," and accessing help for on-screen reading is consistent with that use. However, for help that provides highly conceptual domain information, users may access it simply to print it out.

Labeling of the access point We believe that most users don't click on "Help" buttons [4,11]. Yet even recently published guidelines still advise using the word Help as the access point [7]. The word "help" requires the user to accept a position of defeat or impasse, when in fact the user may be willing to continue muddling through, but would welcome a small piece of advice.

One workshop participant offered an example of an interface with a Help tab, which server log analysis indicated received no use. When the

product team renamed the tab "Can't Find It?," the tab received significant use.

Labeling of the access point should invite the user to seek more information. For example, the neutrally worded links "tip" and "info" both indicate that some additional information is available, should the user want it.

Answering Real User Questions

Even with embedded help, when the opening topic is not in fact helpful, the user must delve further into the help content. If their next view of the help content seems like "turning on the fire hose," only very persistent users press on to find desired information. The opening help topic must steer the user directly to the next most likely sought topic(s) to maintain the user's confidence and comfort in seeking help.

How do we learn what real questions turn users to help, and at what places users ask those questions? Here is where help *content*, an issue that was easy to focus on but defined as tangential in the workshops, has a direct impact on "helping users to use help." Understanding what content users frequently seek determines what the top layer of help should be, where in the interface to place the access point, and what to label the access point. It may even suggest wording embedded directly in the UI to save the user from "looking it up."

Workshop attendees suggested the following methods for learning real user questions:

- Interview customer support, look at call logs
- Refine structure of customer support logs to collect better data
- Analyze chat files, e-mails to collect user terminology
- Collect "Did this topic answer your question?" feedback when people receive help, and ask them what their question was
- Ask what users were trying to look up in indexes
- Collect customized help that large customers create to support their end users
- Read customer forums
- Talk to training people
- Attend training classes and listen to user questions
- Note problems while observing users
- Conduct diary studies
- Collect what people enter into natural language boxes, do content and frequency analysis
- Count hits on the knowledge base (from both customers and customer support)
- Set up a user wikipedia, with a user rating system; do hit counts on the wikipedia

Help as an Element of Customer Assistance

Help systems for an application should be one part of an integrated customer assistance program. Other parts of such a program include:

- Human-assisted support via telephone, chat, and email
- Website knowledge base
- Product tutorials and training

Earlier generation products used primarily at businesses could rely on word-of-mouth referrals to the help system by a user's colleagues. Many current products and websites are designed for heavy use in customer homes, where users tend to fend for themselves. Users need to be made aware of help resources through all elements of the customer assistance program, whenever practical. The workshop groups identified three areas where awareness of help can be raised.

Installation and training All groups supporting the product launch can raise awareness of help. For example, the installation process and training demos can highlight the help system.

Customer support Telephone, chat, and email support should be an aid for customers to use help, rather than an alternative to help. Customer support personnel should themselves be trained to coach, convince, and evangelize users to use help.

Marketing Help as part of the product should have its own marketing program. Places where promotional messages can appear are:

- On the company web site for the product
- Newsletter, with topics such as "tip of the month" (from the help system) or "hot topics" (frequently accessed help topics as tracked in server logs)
- User testimonials on the website or in the newsletter
- Incentives for use or reporting problems, such as contests with prizes

Marketing messages promoting help can consist of "calls to action" to users, emphasizing how they can use help to become knowledgeable and increase their value to their organization—as well as make their own jobs easier.

Guidelines and Proposed Research Areas

The solution to helping users access help resides equally in user interface design and in information architecture and communication. The workshop groups identified guidelines for improving access to help information and areas where more research would benefit the user experience design communities of practice.

Distinction between Help and Functionality—Guidelines

- Blend help with the UI—determine during early planning who owns it and who integrates it.
- Design functionality and help support together from the beginning of the design process.
- Design help so the user has no perception of task interruption when accessing it.
- Clearly identify the type of help information (procedural, instructional, domain, supplemental) and match the access design with the type.
- Allow users to customize their access to help information; for example, allow them to add links on the UI to help topics.

Distinction between Help and Functionality—Proposed Research

- What is "too much help" on the UI surface?
- What UI interaction techniques are appropriate for accessing the distinct types of help information?

Help Access Mechanisms—Guidelines

- Match the help initiation mode to the users' needs/goals/preferences.
- Allow users to choose the initiation they want.
- Don't call it Help.

Help Access Mechanisms—Proposed Research

- How can we align user needs to the initiation mode?
- How can we align the help information to the initiation mode?
- How much can we allow users to customize the initiation mode?
- Which help labels work best? How successful are symbols as labels? OK to mix labels? When?
- When is it acceptable for help to interrupt the task (for example, by covering the application window)?
- Is acceptance increasing for reading lengthy information on-screen?

User Personas—Proposed Research

- Do "always try" personas become the help resource for their organizations? What are the characteristics of this group?

Answering Real User Questions—Guidelines

- Real questions direct what help labels to try (and topics to write).
- Perform field research to find out what common questions users need answered, and how users group those questions.
- Perform content analysis of customer support logs, email feedback, and chat dialogs to uncover key questions and terminology.
- Try a user wikipedia.

Answering Real User Questions—Proposed Research

- Which user support sources provide best results for quick improvements? Are more costly sources worth the investment?

Help as an Element of Customer Assistance—Guidelines

- Promote help as part of an integrated customer assistance program.
- Create a business process by which information is maintained and updated for all accesses to all forms of customer assistance.
- Work with marketing, launch team, and training to build recognition of help in collateral, advertising, and tutorials.
- Instruct customer support to advise callers on how to use help to find the information they are seeking.

Help as an Element of Customer Assistance—Proposed Research

- What ways are practical to allow users to customize their customer assistance experience?
- How can we map different customer assistance entry points to user types and needs?
- Do incentives for accessing help work? Which ones work best?

References

[1] J. Carroll (editor), *Minimalism Beyond the Nurnberg Funnel*. Cambridge, MA: The MIT Press, 1998.

[2] T.M. Duffy, J.E. Palmer, and B. Mehlenbacher, "Table 3: Eight Tasks for the User of Online Help," in *Online Help Design and Evaluation*. Ablex Publishing Corporation, 1992 p. 61.

[3] T. Grayling, "A Usability Test of Two Browser-based Embedded Help Systems." *Journal of the Society for Technical Communication*, vol. 49, no. 2, 193-209, 2002.

[4] T. Grayling, "A Usability Test of Online Help," *Journal of the Society of Technical Communication*, Second Quarter, pp. 168-179, 1998.

[5] L. Kantner, S. Rosenbaum, and R. Shroyer, "Structured Heuristic Evaluation of Online Documentation," in *IPCC 2002 Proceedings*, 2002.

[6] R. Krull, J. Friauf, J. Brown-Grant, and A. Eaton, "Usability Trends in an Online Help System: User Testing on Three Releases of a Help for a Visual Programming Language," in *IPCC 2001 Proceedings*, 2002.

[7] M. Linderman and J. Fried, "Guideline 21," in *Defensive Design for the Web*. New Riders Publishing, 2004, p. 118.

[8] M. Marx and C. Schmandt, "MailCall: Message Presentation and a Navigation in a Nonvisual Environment," in *Proceedings of CHI '96*, ACM Press, 1996, pp. 165-172.

[9] S.G. McLellan, A.W. Roesler, and A.L. Elliot, "The Effect of Advice Message Location on User Performance," *IEEE Trans. Prof. Comm*., vol. 39, pp. 43-48, 1996.

[10] R. Molich, "Comparative Expert Reviews," *Conference on Human Factors in Computer Systems*, Ft. Lauderdale, FL, 2003, pp. 1060-1061.

[11] P. Mueller, "Developing an Embedded Help Solution," *Journal of the Society for Technical Communication*, vol. 50, no. 1, pp. 24-32, 2003.

[12] M. Priestley, "Task Oriented or Task Disoriented: Designing a Usable Help Web," in *Proceedings of SIGDOC 98*, ACM Press, 1998, pp. 194-199.

[13] W. Quesenbery, "Meeting User Needs for Useful Online Information," *Journal of the Society for Technical Communication*, vol. 48, no. 2, pp. 182-188, 2001.

[14] B. Raskutti and I. Zukerman, "Generating Queries and Replies during Information-Seeking Interactions," *International Journal of Human-Computer Studies*, 47, pp. 689-734, 1997.

[15] L. Rintjema and K. Warburton, "Creating an HTML Help System for Web-based Products." in *Proceedings of the Sixteenth Annual International Conference on Computer Documentation*, ACM Press, 1998, pp. 23 28.

[16] S. Rosenbaum and J. Ramey, "Current Issues in Assessing and Improving Information Usability," in *Proceedings of CHI 2003*, ACM Press, 2003.

Acknowledgments

The authors are grateful to all workshop participants for their insightful contributions—our thanks to: Kit Almy, Manatron, Inc.; Liza Boyd, Intuit; Nico Daams, University of Southern Denmark; Louis Drummond, Congressional Research Service, Library of Congress; Jon Gass, Microsoft; Melody Ivory, University of Washington; Caroline Jarrett, EffortMark, Ltd.; Ken Lange, Kyocera; Rolf Molich, DialogDesign; Mary Beth Rettger, The MathWorks; and Mara Trygstad, Microsoft Business Solutions.

About the Authors

Stephanie Rosenbaum is founder and president of Tec-Ed, Inc. Stephanie is a senior member of the IEEE and a member of IEEE PCS, ACM SIGCHI, the Human Factors and Ergonomics Society, and the Usability Professionals' Association. She is also an Exemplar and Fellow of the Society for Technical Communication. Stephanie served on the Administrative Council of IEEE PCS, which awarded her an IEEE Millennium Medal in 2000. Stephanie's many publications include a chapter on "Making Usability Research Usable" in Klaus Kaasgaard's book, *Software Design and Usability*, published by the Copenhagen Business School Press. Her research background includes anthropology studies at Columbia University and experimental psychology research for the University of California at Berkeley.

Laurie Kantner is a senior consultant at Tec-Ed, Inc., with over 25 years of experience in user assistance and 10 years of experience in usability evaluation. Laurie defines, manages, and develops documentation, online help, website content, and marketing communication projects, as well as designs and administers usability studies of websites, software, and documentation. Laurie co-authored the paper "Structured Heuristic Evaluation of Online Documentation," presented at the 2002 IEEE Professional Communication Conference (IPCC).

Garett Dworman, Ph.D. is a senior consultant at Tec Ed, Inc., with over ten years of experience in product and information design for firms ranging from financial institutions to high-tech startups. His doctorate in Decision Sciences, from The Wharton School, introduced an innovative design for discovering information patterns from document collections. Garett has been on the CHI conference committee since 1999. He has most recently published papers in the Journal of the American Society for Information Science and the Journal of Management Information Systems.