An Introduction to Embedded Assistance

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Everyone hates help, right? Why? Help is inherently reactive, anticipating users' failure rather than providing information when users need it--before they fail. Print documentation, further from the user's task at hand, is even more guilty of these sins.

This paper presents an overview of embedded assistance, describing the current help paradigm and why it's failing and the basics of embedded assistance, as well as the technologies and infrastructure and the skills and knowledge you need to develop effective embedded assistance.

WHY WHAT WE'RE DELIVERING TODAY IS NOT WORKING

Most technical communicators today are focused on traditional documentation deliverables, such as:
- User guides and reference manauls
- Online help
- Tutorials (print and online)

These documents have worked for years, right? Why aren't they good enough anymore?

Given the satisfaction levels (when we are aware of them) of most users, most of us would probably say that these documents are *not* working. Why not? Among other reasons, these documents are inherently reactive—accessed only when the user fails to perform a task correctly or when the user does not know how to continue—and they typically disrupt the user's flow of work to provide the information he or she seeks to perform the task correctly.

HOW THE EMBEDDED ASSISTANCE APPROACH HELPS OUR USERS

By designing user interfaces to "answer" our users questions before they ask, we make the product more intuitive and "intuitable." We proactively prevent task failure and keep the user within the task at hand. Couple this information-rich UI approach with a user-centered product design process where users are analyzed; information, interaction, screen layout, and algorithms are designed based on gathered analysis data; and designs are validated early and often. We're less frustrated documenting poorly designed products. Our users are less frustrated failing their tasks and not reaching their goals. And our employers develop brand loyalty in their customers due to high levels of satisfaction with products.

EMBEDDED ASSISTANCE TECHNIQUES

Technical communicators—as well as engineers and visual designers developing user interfaces—have long been using techniques of embedded assistance. And recently new techniques have emerged to provide even proactive assistance to users.

Traditional Techniques

Traditional forms of embedded assistance include:
- Text in the user interface
- Wizards
- Do-it-for-you functionality—coaches and "show-mes"

Recent Techniques

Recently, some user interfaces are almost entirely text. Many companies are also employing techniques of "embedded help." "Intelligence" is also making waves on the Web and the desktop.

Information-Rich Interfaces
"Information rich" interfaces are plentiful—nearly the norm—on the Web, and they are becoming more common on the desktop in browser-based applications. To the extent possible, the best of these interfaces provide just what users need, just when they need it, to accomplish the task at hand.

Customization and Intelligence
Web applications have nearly always provided users with a customized experience. It's likely that few of us remember a time when Web applications did not store information about us and provide customized experiences based on that information. This type of functionality has now also found its way into desktop applications—particularly those that are browser based.

Embedded Help
Embedded help, although not truly embedded in the application's interface, is an attempt to keep help from covering the task at hand. The main window or document "shrinks" to accommodate a pane of help or a separate help window that displays next to the main window or document without covering that window or document. The affect of this technique, however, is similar to that of traditional help that covers the task at hand: the task at

hand now appears in a smaller, perhaps inadequately sized, window, and the portion with which the user is most concerned may well be hidden.

HOW TO GET STARTED

To take on the task of information-rich interface and embedded assistance design and development, you need to develop knowledge and skills in the areas of:
- User-centered design processes
- Audience—user and task—analysis
- Interaction and information design
- Usability testing

Easier said than done, you must also convince your company—especially managers and engineers—that this is the right approach to product development. Usability is a culture; most companies do not embrace the approach, the tenets of usability, or the role of communicators in product design. Become a usability evangelist.

Political challenges aside, this is an exciting evolution in our industry—one we should embrace quickly and completely—enabling many of us to perform more valuable and visible tasks, to feel more fulfilled, and to know that we are helping our users become more successful with our products.

RESOURCES

Note: The following are but a few resources for learning more about embedded assistance. When you dig for more information, you'll likely find the most applicable references in the area of Web, software user interface design, and electronic performance support systems.

Books

Cooper, Alan. *The Inmates Are Running the Asylum.* Describes the business case for interaction design. Excellent gift for your CEO, VPs, and managers.

Cooper, Alan. *The Essentials of User Interface Design.* Written for those implementing the interface.

Beyer, Hugh and Karen Holtzblatt. *Contextual Design: Defining Customer-Centered Systems.* An integrated, customer-focused approach to design.

Gery, Gloria. *Electronic Performance Support Systems.* Gery is the acknowledged expert in electronic performance support systems.

Johnson, Jeff. *GUI Bloopers: Don'ts and Dos for Software Developers and Web Designers.* Presents principals and heuristics in the context of examples of inappropriate design. (www.gui-bloopers.com)

Norman, Donald. *The Design of Everyday Things.* A must-read for anyone designing anything.

Pupons Wickham, Daina. *Designing Effective Wizards: A Multidisciplinary Approach.* The team at IBM's Silicon Valley Laboratory demonstrate the multidisciplinary approach.

Raskin, Jef. *The Humane Interface.* Principles for good interactive system design.

Shneiderman, Ben. *Designing the User Interface.* A classic. (www.awl.com/cseng/titles/0-201-69497-2/website/)

Spool, Jared. *Web Site Usability.* Geared toward Web sites, but information useful for any kind of interactive system.

Professional Organizations

ACM SIGCHI (www.acm.org/sigchi/): Association for Computing Machinery's Special Interest Group on Computer-Human Interaction

Local CHI SIGs, e.g., BAYCHI (www.baychi.org)

Online Resources

www.uidesign.net: The Webzine for Interaction Designers

www.usableweb.com: A collection of links about human factors, user interface issues, and usable design specific to the World Wide Web

www.useit.com: Jakob Nielsen's Web site

www.asktog.com: Bruce Tognazzini's Web site

www.cooper.com: Alan Cooper's Cooper Interaction Design site

www.uie.com: Jared Spool's User Interface Engineering site

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