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The monthly newsletter of the NorthBay Chapter of the **Society for Technical Communication**

Volume 7, Number 10, October 2000

Embedded Assistance

by Ken Delpit

"There is something wrong about the man who wants help. There is somewhere a deep defect, a want, in brief, a need, a crying need, somewhere about that man." —**Herman Melville** (1819–91)

At the September chapter meeting, we were once again happy to see Andrea Ames, the STC Region 8 Director-Sponsor. Recall that Andrea spoke to the group earlier this year about writing for programmers (see the three-part write-up in the April, June, and August issues of *NorthBay News*). This time, Andrea focused her articulate views and considerable energy on the subject of embedded assistance (EA).

Background

Providing some historical perspective, Andrea harkened back to the early days of graphical user interfaces (GUIs), these early applications (apps) were presented on black

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personal computers and "traditional" applications, such as WordStar. Prior to the advent of

The Case for Indexing

by John Dibs, President

Indexing, similar to library science, revolves around information retrieval. The need to retrieve information creates the need for indexes. It should be no surprise that indexing and library science are closely related subject areas. Indexers create devices for finding published information. Library professionals also connect people with published information.

In the context of indexing, *information* is an umbrella term for the linguistic or graphical representation of the people, places, things, topics, and concepts in book, computer program, Web site, or other publication (pictures and graphics can also be indexed). Through indexing, key words and concepts contained in the publication are selected, sorted, and listed, usually in alphabetical order, followed by reference numbers that

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STC Mission Statement

The mission of the Society for Technical Communication is to improve the quality and effectiveness of technical communication for audiences worldwide.

This Month's Meeting

Thursday, October 19, 2000

Charles Grantham, Ph.D author of The Future of Work

Charles has over 20 years of business experience in product development and market research in both the computer and telecommunications industries.

He is widely published in technical journals and frequently is quoted in the *Wall Street Journal, Inc.* magazine and is a guest on popular radio and television features. He also holds an appointment as a Visiting Research Fellow at the Fisher Center for Management and Information Technology at UC Berkeley. He has served as Executive Diretor of Research and Development at a Bell operating company, as Senior Business Analyst with a computer manufacturer, and as Managing Director of a market research firm on the East Coast. He has held faculty appointments at several universities and also served on the boards of several start-up software companies and is a founder the Association of Software Design.

For information about the Institute for the Study of Distributed Work, visit www.thefutureofwork.net on the Web.

Meeting Schedule

Location:: Parker Compumotor, 5500 Labath Dr., Rohnert Park
Time: 5:30 - 6:30 Networking and Refreshments
6:30 - 8:15 Introductions and Program

8:15 - 8:30 More Conversation, Idea Swapping

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screens with blinking green cursors. The paradigm was a familiar one in its time—that of a typewriter—and the user could scroll through the "paper" on screen without having to learn a new conceptual model.

Essentially, the user supplied his or her own help with these early apps. If an "online" help system was provided, it was usually supplementary, not integrated. So, obtaining help was an arduous task that required leaving the application and entering the new paradigm of the help system. Block-character, pseudo-graphical interfaces allowed smoother transitions from app to help, but still required putting aside one task and taking up another.

Even with today's powerful computers and slick GUIs, many help systems still retain a barrier between task and assistance. Online *documents*, Andrea explained, are those that were originally developed for print media and have been converted to an online format. Online *systems*, on the other hand, are meant to be used online. Generally, online systems are not contiguous documents, unlike books. Rather, they consist of many small topics that are usually associated with discrete tasks. The best systems are well indexed and provide useful search capabilities.

A common problem with online systems is that they present the help information in a separate window, thereby covering part of the application and hiding the original context. Embedded help (EH) systems attempt to overcome this problem by displaying both the app and the help text simultaneously. EH, Andrea cautioned, is not to be confused with EA, however. "EH is that mechanism by which the main part of the window is shrunk down and a separate window is pulled up. EH is a specific, proprietary technological mechanism."

Online Systems, Online Problems

"If a user needs to leave an application in order to get help, the application has already failed them." —Technical Writer at STC regional conference

In looking at content and technology, there is much to appreciate about online help systems. Looking at *usability* is another matter, however. Online documentation suffers from a seriously bad reputation and users' negative perceptions, studies show. Sometimes, negative perceptions were formed early about traditional systems and have been carried forward.

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We can't blame it all on the past, though. Even many of those who grew up with modern, GUI-based help systems have sour opinions of help systems. As Andrea pointed out, only 35% of users find help systems useful or very useful, while 65% find them occasionally useful or not useful at all—not exactly customer satisfaction to boast about.

Even scarier, consider this as evidence of rampant frustration and pessimism

about help systems: *Users spend*, *on* average, only twelve seconds in seeking software product help! "So, we don't find help helpful; we don't find it useful; and, we don't stick with it long enough to let it prove that it has good content," Andrea summarized.

What are the problems with non-EA online help systems? There are several:

- The systems encourage a "Hello, stupid user" perception that discourages users from seeking help, or causing them to give up quickly when they try.
- The systems enforce strong boundaries between the user interface (UI) and the help information.
- The systems force the user to "shift gears" mentally, leaving the task at hand in order to enter the help system.
- The systems are reactive, waiting for users to get in trouble before help is offered.
- Help windows consume precious screen real estate.
- Obtaining help requires much work and memorization by the user.

This last one is a killer by itself. Think about a typical online help transaction. The user must be able to articulate the problem, conjure keywords, formulate a query, perhaps select an appropriate description of the problem, select among possible solutions, remember the help information, switch back to the original task, and perform the described actions. It's no wonder that users think ill of help systems.

Andrea would probably agree to the notion quoted above about an app having failed a user. Nonetheless, most users take the burden of responsibility on themselves: They assume that it is *they* who have failed. Unfortunately, many apps and help systems perpetuate this notion—imperious systems with insider language and patronizing tone.

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STC Offers Grants for "Special Opportunities" in Technical Communication

The Society for Technical Communication (STC) welcomes applications for Special Opportunities Grants to support projects that develop and communicate new information about the arts and sciences of technical communication. The Society encourages proposals for such educational projects as pilot programs, new high school and college curricula, or innovative teaching methods.

STC's Special Opportunities
Committee awards one-time grant
funding for amounts up to \$10,000.
Deadlines for applications are October 15,
2000 and February 15, 2001. For Special
Opportunities Grants Guidelines, see the
STC Web page at www.stc-va.org (select
"Grants & Loans" then scroll down to
"Special Opportunities Grant") or request
a copy by calling or e-mailing the STC
office at (703) 522-4114 or stc@stcva.org.

To qualify for STC Special Opportunities Grant funding, the project you envision must be a controlled activity that can develop and communicate new and non-proprietary information to the STC membership.

For more information, please contact the Special Opportunities Committee cochairs, Deborah Rosenquist (deborah_rosenquist@ccmail.us.dell.com) or Katherine Staples (kstaples@bga.com).



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Even if well intentioned and well written, excessively technical or inappropriate information can leave a user feeling stupid. Certainly not all attempts to advance the art of online help systems have been successful and popular. Vocal evidence of this arose when Andrea polled the audience about Clippy, Microsoft's eager but obnoxious

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help agent in Word, and was met with expressions of derision and outright hostility.

EA to the Rescue

"Superstars strive for approbation; heroes walk alone. Superstars crave consensus; heroes define themselves by the judgment of a future they see it as their task to bring about." — **Henry A. Kissinger** (b. 1923)

"EA addresses these problems," said Andrea, offering examples. Microsoft Money is an EA system. The UI itself is structured around tasks that the user might want to perform. The UI answers immediate questions, such as "What do I do with this product?" and "How do I perform this transaction?" transparently, without requiring deliberate user action. "By picking a task and clicking on it, the UI takes you to that part of the application," Andrea said. The guidance "is proactive, relevant to wherever you are."

In another example, Andrea offered "weblications" of online vendors, such as catalog companies, booksellers, and investment services. Weblications, she defined, are combinations of applications and Web sites. Amazon.com, the purveyor of books and other items, is an example of an EA weblication that guides users step by step through a transaction. At such sites, many people don't even realize that there is help available, because the app never lets them go astray. "All the information you need, when you need it. Very proactive," said Andrea.

Interestingly, in a well-designed EA application, usability tests show that users have the perception that they did not require any help. The help, in other words, was completely transparent to the user. This is as it should be, and probably the best way to overcome the negative perceptions. EA enforces strong ties with the UI. EA is proactive. With EA, the UI is the manual.

EA seeks "to give people information during the task, not outside the task, not on top of the task, not adjacent to the task, but proactive," said Andrea. Information relevant to the task at hand is presented naturally, integral to the task, without requiring help look-up operations. The goal of EA is simple: "Never let a user get to the point in a task where the user fails and has to get help," said Andrea.

The Big Convergence

Convergent evolution: The adaptive evolution of superficially similar structures, such as the wings of birds

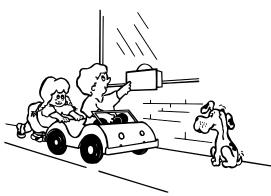
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and insects, in unrelated species subjected to similar environments.

In reminiscing about traditional interfaces, and even the early days of the Web when displaying graphics required a separate viewer, Andrea found a silver lining—the beginnings of and ongoing convergence of the programmers' and the technical writers' worlds. "Are (help systems) a programming medium? No, they are a publishing medium," she said. "This is something that comes out of *our*



"Gimme some HELP to go. I only have 12 seconds!"

industry, not the engineering industry. The desktop apps? They can have those."

"What we're seeing is the convergence of a very information-rich paradigm like the Web with a very widget-based paradigm like Microsoft apps," she said. "That is, the converged paradigms are taking on the characteristics of a publishing medium, less so than a programming medium." Furthermore, Web-based technologies offer some intriguing possibilities for technical writers, such as using SGML or XML to build information databases, rather than mere documents.

EA Developer Requirements

Developers can't just jump into EA, however. Some developers are reluctant to

learn new tools. Even more important, though, are the up-front costs. Good EA systems "require well-thought-out information architecture and designs," Andrea said. They require the developer to approach application design as the embodiment of both function *and* information. Support is required of both UI designers and programmers. Equally important, support is required of management, which must set priorities and allocate resources.

Ideally, developers should approach UI design as if there is to be no online documentation. By anticipating questions and guiding users, developers can literally eliminate the need for separate help systems.

By collecting and using "metadata" about what users know or what tasks they have performed, applications can provide help beyond that required for an individual task. Developers can build intelligent, "big brother" agents that anticipate or recognize the macro view of what the user is trying to do. Developers much watch, however, that they not cross that line between helpfulness and annoyance. Clippy may have its fans, but it most certainly has its detractors.

How Do We Fit In?

Not surprisingly, Andrea saw technical writers as instrumental in this convergence. More than just developers of content, writers can be assistant designers and developers of the application itself. We can show developers examples of good, manual-less, EA applications.

We can use our knowledge of reader preferences and human factors to shape both the UI and the organization of functions. We can perform audience and task analyses to define users and their goals. We can help produce, or even own, functional specifications.

We can help developers build modularity and minimalism into

systems. We can call on our training in visual design to help produce uncluttered, appealing interfaces that accomplish the tasks with a minimum of fuss. We can promote and conduct usability testing to improve or confirm designs. We can sell the benefits of EA—that is, increased customer satisfaction, reduced customer frustration, and reduced technical support costs—to management.

Implementing good EA will require persuasion and persistence from us to overcome prejudices and inertia. Learning a new way of doing things is rarely easy, but keeping our goals in sharp focus can help us navigate the inevitable rough

not a

programming

medium, but a

publishing

medium.

waters. Finally, we should be sure to temper our persistence with tolerance and compromise. Usually, the journey to a better tomorrow requires more than a single step.

Besides being the STC Region 8 Director-Sponsor, Andrea L. Ames is the owner of "verbal imagery," a technical writing consulting firm, and the principal technical writer at Vertical Networks, Inc. Andrea is also a Junior Fellow at the San Diego Supercomputer Center. She can be reached at andrea@verbalimagery.com.

The Case for Indexing

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indicate on which pages the information is to be found. Clear enough? Perhaps, except that with the advent of the Internet, the term "publication" has taken on a new and expanded meaning. And with the

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medium of the Web, what is a *page*, anyway?

If we consider each URL to represent a separate publication, quality aside, we can view the Internet as a collection of publications. For the Internet, an index can tell us where to find information at the publication (Web site) level, and also can list publication titles (URLs) in a way that enables the user to find information faster. To create an index for the Web, an indexer takes the time to choose meaningful topics and key words and arrange them in a meaningful way, using hypertext links to function as "page" locators.

Can we surmise that with computer automation, the need for human indexing of published material is a thing of the past? Let me ask the question by way of analogy. With the advent of grammar checkers in word processing software, have we seen the demise of the need for human editing? In both cases, no. On the contrary, the answer is, as more material gets published, the demand for professional indexers—as well as editors and writers—grows, not diminishes.

Search Engines vs. Indexes

What about search engines? These powerful and mysterious mining tools take any word or word combination that we can type and spit back a list of hits on the Web. Don't these free tools substitute for indexes? Instead of looking up a word and navigating to where it is discussed, all we have to do click GO! to view a vast list of 394,125 or so hits that bear the imprint of our sought-after string. And many sites offer search engines to hone our search further.

There's no question that search engines are useful for surfing the Web. The limitation is that these rely entirely on string matches within HTML tags. The random order in which hits are returned may or may not assist Web surfers in getting the most appropriate information for their search. Unfortunately, a master index of all information on the World Wide Web is beyond the bandwidth of any team of indexers, however talented they may be. Yet as the attention to quality grows to include more published material on the Web, we can expect more attention to the use of indexing to aid users in finding information.

A Human Art

Indexing is an art that cannot be replaced by computers. Computing uses sorting to accomplish a task once information is present, while humanly created indexes address the need for locating information in the first place. The process of indexing, by a human indexer, involves working through the

concepts and content of a given published material, and *shaping* the resulting data or *entries* in a meaningful way. Unlike machine computer-generated indexes or search engines, a humanly created index differentiates entries based on the perceived need of the user (in the case of the Web, the choice of topics for index entries can be driven by commercial



Without an index, finding what you need can be like looking for a needle in a ...you know...

interests, of course). In order to differentiate, human judgment must be exercised.

Today, in addition to indexes created for printed publications, traditionally called back-of-the-book indexes, we know that indexes are critical for other publications and products. Devices for retrieving information have been duly incorporated into online help authoring software, for example. And as we move forward in time, we see an increasing number of Web and intranet sites containing an index of links to information on the entire site. (For a handy review of some Web indexing software, see "Web Indexing Tools," by Kevin Broccoli; A to Z: The Newsletter of STC's Indexing SIG, Sept. 1999, available at stc.org/pics/indexing/pdf/99sept.pdf.)

Indexing in the Publication Cycle

Published material gets more use and attention, the better it's indexed. Most

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publishing professionals realize that indexing is a critical task for most nonfiction publications, and that the skills required by someone who indexes are distinct from those that a writer or author typically possess. Still, some editors and managers assume that indexes can or should be churned out by those who are most familiar with the material, i.e., the writer.

In a publication's creation cycle, with indexing in the project schedule, authors

The process of indexing, by a buman indexer, involves shaping the resulting data or entries in a meaningful way...

are usually exhausted by the time a document is ready to go to print. Rather than expect writers to breeze through their document or online material and come up with an index, isn't it better to engage a skilled team member to take the material and create a professional index? If a publications manager or editor knows what to look for in an index, they can manage the work of the indexer as part of the publication process. The writer or author should be available for consulting about particularly difficult terms or special problems that arise.

Indexing is a subset skill of technical

communication and integral within the publication process, but most technical writers need not be skilled indexers. Don't get me wrong. Writers who have an interest in indexing should be encouraged. Yet from a process point of view, if indexing is scheduled into the *end* of the production cycle—as it should be—just prior to printing or compiling the final software, and if a qualified freelance or in-house indexer can be utilized for this purpose, the result will be a quality index to crown the publication.



Coming Soon! October 19-21, 2000

STC Regions 7 and 8 Pan-Pacific Conference in Hawaii

If you're reading this, you've probably already missed it!

Technical Writers

Mahi Networks in Petaluma is looking for experienced technical writers, especially with a telecom background. PC based, MS Word, FrameMaker, graphics programs, etc.

Mahi Networks is an aggressive early-stage company offering Pre-IPO Stock Options, pioneering a new class of broadband optical transport equipment. Mahi Networks will bring our customers, the carriers and service providers, a cutting-edge class of optical switches.

Backed by blue-chip investors (including Sequoia Capital, Benchmark Capital, Goldman Sachs, Deutsche Telekom, Anschutz Investment Company, Berkeley International Capital, and GE Capital) and a top-tier management team, Mahi offers generous benefits (Medical, Chiropractic, Dental, Vision, 401K, Stock Options, Flexible Work Schedules) and Domestic Partner coverage.

This is a great place to work, full of very bright, and very focused, dynamic people. If you like the fast-paced, high energy of a start-up environment, with a GREAT chance to hit it big in a red-hot emerging market, drop me a line or give me a call for more information.



Karl Schmidtmann kschmidtmann@mahinetworks.com 707-283-1138 http://www.mahinetworks.com/mahi/ careers/

Editor Position

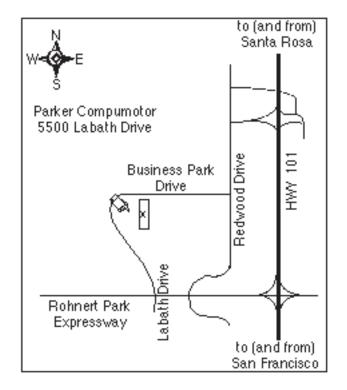
Seeking an experienced editor to provide West Coast regional coverage of the business and venture capital aspects of the telecommunications industry for a national weekly technology magazine. *Telephony Magazine*

(www.internetTelephony.com) serves the long-distance provider, internet service provider, local exchange service and cable TV provider industries. For more information, please contact Tom Atkinson at 630-871-2047 from 9:00 a.m. to 4:00 p.m. Central Standard Time.

We meet on the third Thursday of each month

Our November Meeting Thursday,November 16 Topic to be announced

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