

design matters

September '99

An Interview with Robert Horn

by Beth Conney Lisberg

Robert Horn is author of the book *Visual Language* and inventor of the Information Mapping® method of technical writing.

[Beth Conney Lisberg] The idea that visuals alone do not communicate without words is brilliant. What led you to this idea? That is, how did you discover that visuals or visual icons don't work alone?

[Robert Horn] First of all it was my direct experience. Paintings let us read many different interpretations into them. The ambiguity of such artistic experiences is well-known. The computer interface experience with icons is similar. Most of us don't understand half of the icons in most new software. Do you? That's why balloon help was developed.

Second, many of the pages of documents that communicated extremely well seemed to have both visual elements and words. Although they were called "graphics," they always included some words, and usually a caption.

Third, I experimented with making traditional graphics more integrated, for example by integrating the words from the caption even more tightly into the visual elements.

And, fourthly, while I was finishing my book I came across a line of psychological research by John Sweller and his associates that showed that tightly integrating words and visual elements improved learning by a considerable amount (usually 20 to 50 percent).

[BCL] Why did you put the pragmatics section last? In this section you describe the changes that have

taken place in the business world because of visual icons and the ability to implement visuals via the computer. This section was an Aha! for me, and I was surprised that you didn't use it as an introduction.

[RH] Well, I was following the traditional organization of language books, which treat syntax, semantics, and pragmatics in that order. Syntax focuses on the basic components and on the patterns or organization of the individual components that are possible and not possible in a language. Semantics focuses on the meanings of individual units of communication. And pragmatics addresses the way that

the language is actually used. The major impact of visual language has so far been in pragmatic situations. Most people flip through the book quickly to get an overview of its contents and can find the pragmatics chapter quickly.

[BCL] Is there truly a visual language? Why do we need to define the change in our society of communications from all verbal to verbal plus visual as a new language? Had you thought of calling it a notation system?

[RH] Language experts themselves differ on what they would regard as a language. Purists reserve the term only for natural languages, that is languages that are spoken by some group of people on the planet. The less strict would call computer languages distinct languages. It is common to speak of visual languages and, indeed, there is a journal called *Visible Language* that has been published for at least ten years.

I prefer the term visual language because of the reasons I state in the book. It can be analyzed linguistically, yet has distinct properties that make it different from natural languages and from purely artistic languages. Other properties that language experts require for a language include a plurality of common signs that are combinable and sufficiently

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Robert Horn.

The newsletter
of the STC
Information
Design SIG

Another Great Year!

by Cheri Taylor, ID SIG Manager

I hope many of you had the opportunity to attend the 46th annual STC conference, held this past May in Cincinnati, Ohio. As usual, there were too many information design sessions to choose from! The ID SIG was pleased to participate, hosting the first ever Information Design Progression. Eleven speakers hosted the roundtable discussions for an appreciative full house. For those of you who missed the session or who couldn't pick up all the handouts, you can visit the STC website, where several presenters have posted their handouts online. Visit the site at <http://stc.org/region4/soc/46thconf/handouts/>. We'll also be summarizing the presentations in *Design Matters*, starting with this issue (see p. 6).

The ID SIG hosted 12 tables at the SIG Luncheon. Thanks to those who joined me as table hosts: Marilyn Barrett-O'Leary, Nancy Gacki, Marissa Levin, Beth Lisberg, Melissa Lowery, Peggy Malecki, Beth Mazur, Pamela Migneault, Bill Sullivan, Karen Schriver, and Bogov Vatovec.

We came out of our ID SIG business meeting on the last day of the conference full of ideas for the coming year. Thanks to those of you who attended and will be helping to make our SIG even better.

And there's always room for fun in our cool SIG! This year our promo items were small mouse coasters, bright red with the Design Matters logo in black. In addition to those, we handed out our Design Matters stickers from last year, copies of the current and past newsletter issues, and handouts describing the ID Progression.

This conference was a wonderful end to a wonderful year. I want to mention a few things that the ID SIG accomplished this past year. *Design Matters* won an Excellence award in the newsletter competition. This is our second award in two years of publishing! We published in Oct 1998, Jan 1999, and May 1999. We entered our website in the Public Relations competition. We were one of two SIGs to enter, and this was the first year that SIGs were eligible. We did not win an award, but we have received several favorable comments and suggestions for the site. We are also developing an Information Design special issue of *Technical Communication* for the May 2000 issue.

Our membership continues to grow: as of the printing of this newsletter, we are now over 2500 members! We've got lots of plans for our upcoming year (see our goals article opposite), but we welcome new ideas too. Please let us know how we can make your SIG membership even more valuable to you. And don't forget to mark your calendars for next year's conference in Orlando, Florida. The 47th Annual Conference will be held on May 21-24, 2000. I hope to see you there!

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■ <http://stc.org/pics/idsig>

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Planning the ID SIG Goals

by Cheri Taylor, ID SIG Manager

One of the responsibilities of each STC Special Interest Group is to plan and execute a program of activities that promotes the professional development of its members. Fourteen of us attended the ID SIG business meeting at the Cincinnati conference, and we spent the majority of the meeting planning our upcoming year. Thanks to all of you who contributed ideas then and since, and a special thanks to those who've already volunteered to bring a goal to reality!

As a SIG, we want to "push the envelope" in terms of activities, creativity, and benefits both inside and outside STC. As information designers, we are in a unique position to develop and complete activities not usually associated with STC SIGs: information is all around us, and we're not limited to the usual genre of technical writing.

For the coming year, we decided to focus our efforts in three areas: the newsletter, the website, and the 2000 conference. We want to continue our excellent work publishing the ID SIG's award-winning newsletter *Design Matters*. We want to improve our website even more, keeping the content current and interesting. We want to sponsor several sessions at the 2000 conference.

For next year, we want to look toward our local efforts. STC is noticing a growing interest in STC at the local chapter levels, especially in local SIGs associated with the chapters. We would like to help several local ID SIGs get started over the next couple of years.

In addition, we will be working on the following goals that are planned for each year:

- Publish *Design Matters* three to four times.
- Accomplish the basic SIG activities at each annual conference, including the business meeting, SIG luncheon, and at least one session.
- Publish at least one article related to the ID SIG in *Intercom*.

These are our selected goals for this year:

- Enhance the website.
- Enter the website in the STC Public Relations competition in the Promotional Communications category (deadline March 15).
- Hold several sessions in Orlando, including an ID Progression or two, an Idea Market poster session, an ID Student Panel session to highlight resources and programs, and an ID Workshop.

The following goals are in our idea pipeline for future years, grouped into topics:

Special Projects

- Develop a plan to help with STC's technical literacy effort.

- Help STC Press in redesigning its offerings.
- Produce a video about ID to be available to chapters, workshops, etc.

Literature/Research

- Sponsor an ID column for *Intercom*.
- Compile an STC Press anthology or book on ID practice.
- Start a materials exchange between the US and the international ID community (such as a list of reprintable articles from IIID).

Conference Activities

- Set up a presence at regional conferences.
- Hold an online conference.
- Suggest ID-related speakers for conferences.
- Hold website/online help evaluations and poster displays at conferences.

Member Outreach

- Add a Chapter SIG Coordinator position.
- Add a Student Chapter SIG Coordinator position.
- Add a Community Service Coordinator position.
- Explore interest / need for membership directory.
- Develop membership questionnaires (ID practices, volunteer interests, etc.).
- Add liaisons to other SIGs.

Comments and suggestions (and volunteers) from all members are welcome and encouraged!

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Reader Response

by Craig Marion

In the May issue of *Design Matters* you asked for responses to the feature story. Here's mine:

I'm much more comfortable describing myself as an "information designer" than I am as a "technical communicator." In my mind, technical communicators essentially write manuals and online help. I've worked hard to develop approaches to printed information and online assistance that are distinctive, and I want to feature these distinctions. While calling myself an information designer doesn't tell prospective clients or employers what I do, it tells them I don't see myself as a generic technical communicator and gives me an opportunity to explain why.

I was hoping to get some clarity on what the term means to others in the May issue. I guess I got my wish: it means everything and anything.

Some contributors said that what we're now calling designing information isn't really new at all. Others felt that, because there's no agreement on

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arbitrary, conventional and ambiguous. There are novel units of communication, a distinct history and a broad range of expression possible for visual language. It is sufficiently complete and distinct and is used by a growing world wide community. All of these characteristics suggest that it is a language, certainly a lot bigger than a "notation system."

[BCL] Whatever it is called, you've created a fabulous taxonomy, eminently useful.

[RH] I appreciate your comments on my taxonomy. That has been one of the major ways I approach problems. As you know, many years ago, I invented the Information Mapping® method of technical writing. It is based on a somewhat different taxonomy. Taxonomies are important. If you get the kinds of things you're going to have to deal with right, you can manage knowledge in very powerful ways.

[BCL] You're well-known for the development of structured writing and information mapping. Was it a big leap from info mapping to visual language?

[RH] Yes, because it was a move from a methodology to a language. Languages are by definition much broader and deeper than methodologies. And visual language has extraordinary breadth and depth to its vocabulary, syntax, and semantics. So visual language took a lot longer to develop and to begin to understand. The basic core of developing structured writing and Information Mapping took a summer. Visual language has taken the better part of ten years.

[BCL] You define information murals as large, highly integrated displays usually the size of a wall or part of a wall that include one or more infographics. They are often highly interlinked with a variety of displays (or windows) representing multiple levels of detail and perspective. I see these as another important tool for understanding complex interrelationships. At this point, they are a vastly underutilized tool. Do corporate executives and decision-makers need to be sold on the importance of this tool?

[RH] Some do and some don't. Usually when they see it with their own company's strategic plans and environment, they "get" it. I firmly believe that we have a new way of thinking and communicating about complexity evolving here, and visual language and structured writing are directly in the

middle of it. I sometimes call the interlinked infomurals and windows "layered thinking." The best thinkers have always been able to sort out distinct levels and components. But now we have the tools to manage this kind of knowledge. That will let more people get into the act.

[BCL] There is a lot of information in the book. Do you have any suggestions on how to sort out the theoretical from the practical?

[RH] I wanted to make sure that the reader had access to a complete survey of the visual language landscape. That meant packing the book with examples and presenting a comprehensive framework.

However, I have organized the book in such a way that you can dip in anywhere. That is the purpose of the two page spreads. You can scan the book and skip around quite easily and integrate the knowledge in your own way. It is part of my philosophy of document design that goes back to structured writing. You should be able to skip what you already

know. You should be able to read the same page at different levels and at different speeds—from browsing and skimming to detailed analysis. And you should be able to do that easily. The design of the book should help you do that. I think visual language itself makes that sort of thing much more possible. And it's the only way we're going to be able to survive in the information overload that we all live in.

[BCL] Some technical communicators are aware that they are not visual, and want to become more visual, but don't even know where to begin to integrate visual language into their work. Any suggestions so they can make the transition in small steps? I'm thinking especially of chapter 5 (Semantics of Content) and chapter 6 (Semantics of Rhetoric), which illustrate what to show about the content of a topic, and how to help users navigate.

[RH] I suppose this is the place to put in a plug. Besides the book, one of the things we have done is to develop a course called "Visual Thinking and Visual Communication" that presents the basic skills and knowledge you need to begin to use highly integrated visual language in your work. It's designed for writers who know they need to begin to use visual language, but don't know where to begin. You don't have to be able to draw a straight line in order to take the course. The chapters you mention (on functional semantics of content and rhetoric) constitute one out of 16 hours of the course, asking the



question: "What do words do best and what do visual elements and images do best—when they are tightly integrated."

[BCL] Tell us more about the influence of Robert McKim, and his work with visual problem solving. [RH] Robert McKim was a pioneer in visual creative problem solving. He created a course at Stanford University (where I am currently a Visiting Scholar) that got industrial design students to think creatively in visual languages. His book, more than most, shows the practical way to learn to do this creative thinking through dozens of exercises. And his ideas of externalizing thinking through visual language are very important because they provide sensory nourishment, promote serendipity, produce a sense of immediacy, provide objects for critical thinking, and encourage so-called right-hemisphere thinking. For all of these reasons, he started a whole movement in creativity and visual language. ♦

For more information:

Robert Horn, www.macrovu.com

Robert McKim, www.vizability.com

Visible Language, www.id.iit.edu/visiblelanguage

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Reader Response

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definitions, we "cannot truly call ourselves a discipline" (William Gribbons) and that "we have no future if we do not share a common past, a common body of experience and history" (David Sless).

Some positions were controversial. Brenda Dervin believes that information design should be concerned with linking dialogic practices of communication with information transmission. Bob Jacobson believes it will evolve into experiential design.

Others were practical and realistic. Several respondents noted the connection between developments in technology and the ways in which we can present information. Wes Ervin pointed out that customers want more than generic skills: they want to see that you've done similar work and that you know their industry.

Nathan Shedroff noted that some visual designers are now calling themselves information designers. His own position, that information designers are "a subset of interface designers (and close kin)," is the common wisdom in cutting-edge web design firms but virtually unknown among mainstream software developers and technical communicators. And his suggestion that the term "information architect" — alluding I'm sure to Richard Saul Wurman's superb

book by that title — is a better one than "information designer" deserves discussion as well. (Wurman's *Information Architects* is the best compendium of creative information design that I'm aware of).

I think this lack of any consensus is more of a problem for academics — at least half of the respondents, as closely as I could tell — than it is for those of us in the field. The business world, after all, is concerned with results, and they're justly skeptical of labels. Academics need to be more concerned with boundaries, and also with providing knowledge and training that's of value.

If anyone cares to respond, I'd be curious if others agree or disagree with my understanding of the term "information designer." To capsule it, I think that technical communicators looking for new assignments need to have proficiency with tools and be able to present suitable writing samples because their work is essentially writing using these tools. Information designers need to have writing and technology skills, too, but they also need to demonstrate achievements in design. Writing samples aren't enough; they require design portfolios.

If this distinction is viable, it raises a number of questions. If design skills and originality distinguish information designers from technical communicators, are information design skills a separate set of skills that complement those of technical communicators? If they are, what exactly are they and how can someone be trained in them? Most significantly, where's the overlap between technical communications and information design, and what are the distinctions? And most controversially, if someone wants to design information, is becoming a technical communicator first the best route, or does it make more sense to go to a new media shop, work with information, develop proficiency with the current tools, and simply ignore the field of technical communications?

Perhaps these questions could be addressed in a subsequent issue. ♦

Craig Marion can be reached at cmarion@chesco.com.



Mark Your Calendars!

STC's 47th Annual Conference

May 21-24, 2000

Orlando, Florida

ID SIG Progression

A number of those who participated in the ID SIG Progression in the recent STC conference in Cincinnati responded to Design Matter's invitation to summarize their session for SIG members. We've printed two in this issue; look for the others in upcoming issues.

Getting Involved in Community Service Information Design Projects

by Karen Schriver

This progression encouraged participants to increase public awareness of information design through community service projects. Participants generated ideas about types of information design projects that could help citizens understand what good information design is.

To focus discussion, I presented some ideas for getting public attention developed by members of the STC ID SIG and professional communicators who took part in the 1997-1999 Technical Communication Summits. The Summits were comprised of representatives from five technical communication groups: the Society for Technical Communication (STC), the Association for Computing Machinery's Special Interest Group in Documentation (SIGDOC), the Association of Teachers of Technical Writing (ATTW), the Council for Programs in Scientific and Technical Communication (CPTSC), and the Institute for Electrical and Electronic Engineers Professional Communication Society (IEEE PCS).

An idea that has been percolating both in the STC ID SIG and the Summits has been to find ways to help average citizens recognize differences between good and bad information design. Our mutual goal: To increase people's understanding of information design and to give them tools for realizing that "nine out of ten times it is not the citizen who is too stupid to understand the information, but the design of the information that is stupid." Two specific ideas were discussed at this progression.

Idea 1: A Public Awareness Campaign about Information Design

The idea of creating a public awareness campaign about information design is somewhat akin to the campaign of Science in the Public Interest, the group that warned consumers about fattening Chinese food and butter on movie popcorn. We discussed the kinds of Public Service Announcements on radio and television that could help put information design into public focus. Participants in this progression felt it was important to build citizen awareness that information design exists prior to helping them distinguish good from bad design. It was pointed out

that citizens would have little interest knowing good from bad if they didn't know that it was important in their lives. One threat to the success of the Public Service Announcement idea is that it will require substantial funding, time, commitment, and talent.

Some participants felt we should adopt the strategies employed by the very successful organization Mothers Against Drunk Driving (MADD). Participants concluded that we need to find a group of public documents to create the campaign around. Some felt we should choose documents other than those written by the U.S. Internal Revenue Service since they are so often used as exemplary disinformation design; they thought people would think we were beating a dead horse. Some suggestions for documents to focus on included the "Patient's Bill of Rights," "Understanding HMOs," "Your Medicare Benefits," and "Fine Print in Credit Card Fees."

Idea 2: A Website Designed to Increase Awareness of Information Design

A second idea that evolved from the Summit was building a website to educate people about information design and persuade them that they have "a right to clear information design." This idea, initially called "Your Right to Clear Information," was conceived of as a slogan that could help sensitize citizens to issues of information design. Our assumption is that if citizens think they have a right to information they can understand and use, they'll look with new eyes when they examine information coming from government and business. If more citizens complain about bad information design, the status of designing information will take on a more prominent role in organizations. An added benefit would be that more information designers would find themselves with meaningful employment and would be in a better position to argue their case for doing good work. Lofty goals perhaps, but we feel strongly that the time is right to get more public attention for our field.

The purpose of the website would be to provide resources for people who want to learn more about the basics of information design. Part of the site would be devoted to presenting examples of information design as "befores" and "afters." Another would be to present guidelines for good information design. We might also offer advice on how to evaluate the adequacy of an information design (from a lay perspective). Basically, the site should help people recognize bad information design so they can complain if the situation warrants it.

A key question for this project is how to organize and design the site. To help make decisions, graduate student Susan Perkins at North Carolina State University in Raleigh, North Carolina has been creating an information plan and some prototype screens. Un-

der the direction of Brad Mehlenbacher (a Summit member who represented SIGDOC) and Saul Carliner (a Summit member who represented STC), Susan volunteered to design web pages and organizational schemes. In addition, Doreen Stark, a student at the University of Minnesota, is consolidating ideas for the project by creating a project summary that will extend this one. We'd appreciate suggestions for the site and content it might include. We could also use suggestions for the name of the site; tentatively, we've chosen InfoWorks.

Another issue that we need to resolve is how to display before and afters in a way that does not identify the organizations by name. Not many organizations would want to show their poor "before." But, some may. In fact, some may see showing how far they've come as a way to demonstrate their customer-orientation. We are not interested in humiliating organizations but in educating the public about good and bad design. We'd need permission to show documents that have been revised and it may not be easy to get such permission. At the progression, we were not able to come up with a satisfying solution to this problem. One suggestion was to completely remake the "befores" in such a way that disguises the company. This could be done but it would involve a lot of work. It may be that "real" sample documents are not necessary and that we could create prototype terrible documents that represent those we have worked on. In this way, the documents would be educational not punitive. Suggestions for addressing any of these issues would be most welcome.

The progression participants concluded that external funding to support these projects would be crucial. Any organization able to donate funding or professional resources toward making these projects happen would be most welcome. Members of STC are encouraged to give feedback on these ideas and to suggest how these projects might be brought to fruition. Please send to schriv@cmu.edu. ♦

Design Principles: Online versus Paper

by Marissa Levin

During the Information Design progression at this year's STC conference, I presented an overview of the differences between online information design and paper-based information design. I provided take-away tips and tricks to help both novice and seasoned Information Designers make the most of their delivery mediums and communicate most effectively with their readers.

Specifically, I discussed the differences between printed media and online media in terms of color usage, media size and shape, legibility, and capacity for

information. For example, when comparing color usage, I discussed the use of dark text on a light background vs. the use of light text on a dark background. When comparing capacity for information, I discussed the number of words a printed page can accommodate (400-500 words) vs. the number of words a screen can hold (less than 200 words).

In addition, I provided general tips for designing online information for a variety of topics including how to design your text, how to design your layout and how to select your colors.

While these topics provided a basis for the discussions at my table, each discussion took on a life of its own. All participants actively contributed to the group discussions and provided valuable insight into how the application of various Information Design principles is changing the way that we communicate.

In addition, many participants were anxious to learn how to effectively transition their paper-based information to an online medium without losing their messages or confusing the readers.

My hope is that I provided the attendees with valuable information that they are now applying as they venture into the world of online information design. For those of you that were unable to attend this progression, please contact me and I will provide you with the handouts I supplied at the conference.

Note that SIG members interested in this topic may want to join us for a presentation on "The Critical Role of Quality Control When Developing Printed and Online Learning Products" on October 21, 1999. We will discuss how to apply quality control procedures to:

- Leader-led training materials
- Computer-based training materials
- Web-based training materials
- Online help systems
- Technical documentation (user guides, reference guides, etc.)
- Electronic documentation

We will provide a comprehensive check list that users can apply when designing/developing any of the above-listed learning products. We will also show examples of the various learning products, and will walk through standardized quality control procedures for each of the examples. For more information, visit www.dcastd.org or email me at mlevin@informationexperts.com.



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Information Design

The field of information design applies traditional and evolving design principles to the process of translating complex, unorganized, or unstructured data into valuable, meaningful information.

The practice of information design requires an interdisciplinary approach which combines skills in graphic design, writing and editing, instructional design, human performance technology, and human factors.

Although its reach extends far beyond traditional boundaries of technical communication, the essentials of information design profoundly affect our work. The products of information design occur in any domain in which clear communication is essential, from those familiar to technical communicators, such as reference manuals and online help systems, to those outside the traditional realm of our work, such as public signage in public buildings, insurance and tax forms, and user interface design.

Our Mission

The mission of our SIG is to meet the professional development needs of our members and to act as a vital conduit between STC and information designers at large. Our objectives include:

- advancing awareness of information design among STC members;
- assisting members interested in acquiring information design skills;
- encouraging information design research and making available information design resources;
- examining the roles and practices of the information designer;
- and providing a forum for the discussion of relevant topics.

Please visit the ID SIG website at <http://stc.org/pics/idsig/>



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