"Is This Ethical?" A Survey of Opinion on Principles and Practices of Document Design

Sam Dragga
Texas Tech University

Editor's Note: When Professor Dragga's article was originally published in *Technical Communication* (1st Q 96), numerous typographical and substantive errors he identified in page proof were inadvertently not corrected. We regret the error.

SUMMARY

In a national survey, 500 technical communicators and 500 technical communication teachers were asked to assess the ethics of seven document design cases. According to the 455 respondents, manipulating typography and leading to fit more or less information on a page and using persuasive coloring or spacing are ethical practices, while the manipulation of pictorial illustrations and the distortion of graphics are unethical. Opinion on using typography to decrease readability is divided. In five of the seven cases, women are consistently more lenient or men consistently more strict in their evaluations of ethics. Respondents offered nine different types of explanations for their answers: common practices, specifications, reader's responsibility, writer's responsibility, writer's intentions, consequences, judgments, principles, and insufficient information. The explanation most often given was consequences, indicating a "goal-based" philosophy of ethics.

INTRODUCTION

This article reports the results of a national survey of technical communicators and technical communication teachers regarding their perspectives on the ethics of various document design scenarios. But before you start reading this article, I would like you to answer the seven questions on this survey yourself (see Figure 1). In doing so, you will give yourself the opportunity later in this article to examine your answers relative to the findings of the national survey without being biased by the findings described here. You will also prepare yourself to read this article critically, thinking through with me the ethical issues raised by the rhetorical power of document design.

This article has been peer reviewed.

RHETORICAL POWER AND ETHICAL OBLIGATIONS

Before the computerization of verbal and visual communication—the days of pencils and

1. A prospective employer asks job applicants for a one-page resume. In order to include a little more information on your one page, you slightly decrease the type size and the leading (i.e., the horizontal space between lines). Is this ethical?

1	2	3	4	5
Completely ethical	Mostly ethical	Ethics uncertain	Mostly unethical	Completely unethical

Please explain:

2. You are preparing an annual report for the members of the American Wildlife Association. Included in the report is a pie chart displaying how contributions to the association are used. Each piece of the pie is labeled and its percentage is displayed. In order to de-emphasize the piece of the pie labeled "Administrative Costs," you color this piece green because cool colors make things look smaller. In order to emphasize the piece of the pie labeled "Wildlife Conservation Activities," you color this piece red because hot colors make things look bigger. Is this ethical?

1	2	3	4	5
Completely ethical	Mostly ethical	Ethics uncertain	Mostly unethical	Completely unethical

Please explain:

3. You have been asked to design materials that will be used to recruit new employees. You decide to include photographs of the company's employees and its facilities. Your company has no disabled employees. You ask one of the employees to sit in a wheelchair for one of the photographs. Is this ethical?

1	2	3	4	5
Completely ethical	Mostly ethical	Ethics uncertain	Mostly unethical	Completely unethical

Please explain:

4. You have been asked to evaluate a subordinate for possible promotion. In order to emphasize the employee's qualifications, you display these in a bulleted list. In order to de-emphasize the employee's deficiencies, you display these in a paragraph. Is this ethical?

1	2	3	4	5
Completely ethical	Mostly ethical	Ethics uncertain	Mostly unethical	Completely unethical

Please explain:

Figure 1. Survey of ethical choices on document design.

typewriters—technical communicators were technical writers. The writer's only job was composing words. Graphic artists did the illustrations, and compositors and editors designed the pages. Today, more and more often, the technical writer is a technical communicator, choosing the typography and graphics as well as the words, designing the pages as well as checking the spelling. This ability to design information gives the technical communicator a new rhetorical power and imposes new ethical obligations on using that power.

This new rhetorical power, however, is also a source of peril for technical communicators because little research or guidance is available to identify the principles and practices that would lead to ethical document design. For example, *The Ethics of Human Communication* (Johannesen 1990), a widely cited book on the subject of ethics, dedicates two pages to the ethical dimension of "nonverbal communication" and asks a series of unanswered questions. The STC "Code for Communicators" (revised 1988) is also of little aid, with the exception of advising a communicator to "hold myself responsible for how well my audience understands my message." This advice (as we'll see later) comes close to a philosophy of ethical document design, but it is also buried as the fourth item in a bulleted list of seven professional guidelines, at least three of which have nothing to do with ethics.

Similarly, articles in the major journals of the field characterize ethics exclusively as a verbal issue (Bryan

5. A major client of your company has issued a request for proposals. The maximum length is 25 pages. You have written your proposal and it is 21 pages. You worry that you may be at a disadvantage if your proposal seems short. In order to make your proposal appear longer, you slightly increase the type size and the leading (i.e., the horizontal space between lines). Is this ethical?

1	2	3	4	5
Completely ethical	Mostly ethical	Ethics uncertain	Mostly unethical	Completely unethical

Please explain:

6. You are preparing materials for potential investors, including a 5-year profile of your company's sales figures. Your sales have steadily decreased every year for five years. You design a line graph to display your sales figures. You clearly label each year and the corresponding annual sales. In order to de-emphasize the decreasing sales, you reverse the chronology on the horizontal axis, from 1989, 1990, 1991, 1992, 1993 to 1993, 1992, 1991, 1990, 1989. This way the year with the lowest sales (1993) occurs first and the year with the highest sales (1989) occurs last. Thus the data line rises from left to right and gives the viewer a positive initial impression of your company. Is this ethical?

1	2	3	4	5
Completely ethical	Mostly ethical	Ethics uncertain	Mostly unethical	Completely unethical

Please explain:

7. You are designing materials for your company's newest product. Included is a detailed explanation of the product's limited warranty. In order to emphasize that the product carries a warranty, you display the word "Warranty" in a large size of type, in upper and lower case letters, making the word as visible and readable as possible. In order to de-emphasize the details of the warranty, you display this information in smaller type and in all capital letters, making it more difficult to read and thus more likely to be skipped. Is this ethical?

1	2	3	4	5
Completely ethical	Mostly ethical	Ethics uncertain	Mostly unethical	Completely unethical

Please explain:

Figure 1. Continued.

1992; Buccholz 1989; Clark 1987; Radez 1980; Rubens 1981; Sachs 1980; Shimberg 1980; Walzer 1989; Wicclair and Farkas 1984). In a 1987 *Technical Communication* editorial, however, Girill mentions graphics parenthetically: "Truthfulness requires that although we condense technical data, we should not misrepresent them to our audience (we can suppress the data points, e.g., but the curve should still have the same shape as before)" (178). Perica's 1972 *Technical Communication* article is also a curious exception. Writing prior to the computerization of communication technologies, Perica offers a brief list of guidelines regarding document design. He declares that airbrushing photographs to "highlight essentials" is ethical, but deleting "unsightly or unsafe items" is unethical. Using special typography, color, or glossy photographs is ethical unless important information is obscured. Double-spacing and using wide margins to make a publication look longer is ethical; single-spacing and using narrow margins to make a publication look shorter is also ethical.

While studies of technical communication ethics typically omit the subject of document design, research focusing on document design usually offers little discussion of ethical issues or implications (Benson 1985; Dragga 1992; Felker et al. 1981; Kostelnick 1990; Murch 1985; Schriver 1989; White 1982). Two important exceptions are Edward Tufte''s *The Visual Display of Quantitative Information* (1983) and Mark Monmonier's *How to Lie with Maps* (1991). Tufte's book, however, discusses only the ethics of graphical display, offering guidelines without evidence of their practical merit. Monmonier's perceptive book is equally restrictive, focusing exclusively on the ethics of mapping.

Are clear professional guidelines or a substantial body of research necessary to guide the ethical exercise of this new rhetorical power? Without a guiding

philosophy, do technical communicators espouse ad hoc and erratic practices? Bryan (1992) believes that neither codes of conduct nor journal articles on ethics are effective motivators of ethical behavior because practicing professionals typically ignore guidelines and theoretical discussions, preferring books and magazines that identify specific strategies for success on the job. Walzer (1989) also has criticized the existing research and questioned the impact of codes of conduct on ethical behavior: "More important than even the best set of proscriptions is the complex moral sensibility that can only be honed by confronting and discussing difficult questions of ethics" (105).

A SURVEY OF OPINION ON ETHICS

To initiate the necessary discussion of the ethics of document design, therefore, I devised a survey of seven questions regarding various document design situations. In this survey, each question is assessed on a 5-point scale and a brief explanation of each answer is solicited (see Figure 1). Question 1 (the resume) looks at the practice of shrinking type and leading to fit more information on a page. Question 2 (the pie chart) investigates graphic design using persuasive coloring. Question 3 (the photograph) focuses on pictorial illustrations and the manipulation of visual information. Question 4 (the evaluation) explores how page design serves to direct the audience's attention. Question 5 (the proposal) examines the practice of inflating a document's size by increasing type size and leading. Question 6 (the line graph) focuses on the design of graphic illustrations that violate the typical reader's expectations. Question 7 (the warranty) addresses the issue of typography and readability.

Notice that I offer no definition of the word *ethical*: instead of testing the ability of the respondents to apply a given definition of ethics, the survey tries to determine how the respondents themselves define the word *ethical* within the seven document design situations.

My objective was to devise an instrument that was sufficiently provocative to stimulate discussion, both in school and on the job, as well as relatively quick and easy to administer so that it was practical for both academic and professional environments. I also sought to distribute this survey nationally, thereby allowing respondents to compare their answers to the answers of a representative sampling of the technical communication profession: such a comparison could itself lead to additional discussion of the ethical issues raised by the survey. In addition, a national survey could identify points of consensus from which might arise guiding principles on the ethics of document design.

In a pilot testing of this survey (Dragga 1993), I examined the opinions of practicing technical communicators as well as technical communication majors and minors. I distributed the survey to 33 professional technical communicators from five Dallas organizations and to 31 technical writing majors and minors enrolled in a senior-level course in technical and professional editing at Texas Tech University. This pilot testing indicated that the survey was easily administered and effective at stimulating discussion of ethical issues.

The pilot testing, however, also revealed that students were tentative in judging the seven situations, preferring "mostly ethical" or "mostly unethical" as their answers, whereas the majority of professional communicators chose either "completely ethical" or "completely unethical" as their answers. As a technical communication teacher, therefore, I considered it especially important that my national survey investigate possible differences of opinion dividing educators and practicing writers and editors. Because I am responsible for the education of technical communication majors and minors, I require a clear picture of the profession: Am I teaching ethical principles that professional writers and editors espouse or oppose? Without this knowledge, I do my students a genuine disservice. I encourage their timidity and slow their transition to the working world by failing to prepare them for the ethical challenges they are likely to encounter on the job.

CHARACTERISTICS OF THE SURVEY

In January and February of 1994, I surveyed technical communicators and technical communication teachers to determine their perspectives on the ethics of document design. I identified the population for this survey by using a membership list supplied by STC of 500 technical writers/editors and 500 technical writing teachers in the U.S. (divided proportionally by zip code to achieve a geographical distribution representative of the STC membership). In addition to the seven questions on ethics (see Figure 1) I asked respondents to identify the following:

- primary occupation (educator, technical communicator)

- sex (male, female)
- years of professional experience (≤ 2 years, 3–5 years, 6–10 years, 11+ years)
- level of education (< Bachelor's degree, Bachelor's degree, Master's degree, Doctorate).

I requested information on sex, professional experience, and level of education because I believed such characteristics could be pertinent to the ethics of document design. Several studies, for example, reveal possible differences in the way that males and females perceive and use visual information (Geary, Gilger, and Elliott-Miller 1992; Goldstein, Haldane, and Mitchell 1990; Olson and Eliot 1986; Peterson 1983; Togo and Hood 1992), and a variety of theorists claim that males and females adopt differing ethical perspectives (Code, Mullett, and Overall 1988; Gilligan 1982; Kittay and Meyers 1987; Larrabee 1993; Noddings 1984). The demographic categories of this survey duplicate those of STC's 1992 membership survey, thus permitting a comparative analysis of the two populations.

I anticipated that the brevity of the survey would encourage a high rate of response and thus yield a representative sampling of opinion. The surveys were mailed with a postage-paid envelope and a brief cover letter soliciting the recipient's cooperation.

A CONSENSUS ON CONSEQUENCES

Of the 1,000 surveys mailed, I received 455 replies, a response rate of 45.5%. While 66% of the technical communicators answered the survey, only 20% of the educators did. Table 1 displays the demographic information.

Only 430 people identified their occupation, 420 their sex, and 443 their professional experience and level of education. Relative to the STC membership (Society for Technical Communication 1992), this population has more educators (24% versus 10%), more men (45% versus 38%), more advanced degrees (55% versus 35%), and more job experience (typically 11+ years versus 7 years).

Table 2 displays the survey findings. Notice the clear consensus on Question 1 (the resume), Question 3 (the photograph), and Question 5 (the proposal). On the remaining questions, opinion is divided. A clear majority, however, consider Question 3 (the pie chart) and Question 4 (the evaluation) either "mostly ethical" or "completely ethical," while a majority judge Question 6 (the line graph) either "mostly unethical" or "completely unethical." Question 7 (the warranty) elicits a genuinely divided opinion, with equal minorities labeling it "completely ethical" and "completely unethical"; however, a plurality judge it "mostly unethical."

Table 1. Characteristics of Survey Respondents

Primary Occupation of Respondents			
	Occupation	Count	Percent
1	Educator	102	24%
2	Communicator	328	76%
Sex of Respondents			
	Sex	Count	Percent
1	Male	188	45%
2	Female	232	55%
Professional Experience of Respondents			
	Experience	Count	Percent
1	≤ 2 years	33	7%
2	3–5 years	82	19%
3	6–10 years	105	24%
4	11+ years	223	50%
Level of Education of Respondents			
	Degree	Count	Percent
1	< Bachelor's	29	6%
2	Bachelor's	172	39%
3	Master's	171	39%
4	Doctorate	71	16%

Analysis of the findings according to occupation, education, and professional experience reveals no statistically significant differences. Educators and technical communicators judge the seven situations virtually identically, as do all levels of education and job experience. On Questions 1, 2, 4, 6, and 7, however, the answers of men and women exhibit statistically significant differences (unpaired two-tailed t test , $p \leq .01$), with women consistently more lenient or men consistently more strict in their judgments (see Table 3).

Only twice, however, is this difference sufficient to cross the 5-point scale (see Table 4). On Question 4, a plurality of men (26.9%) answered "ethics uncertain" while a plurality of women (34.6%) answered "completely ethical," and on Question 6 a plurality of men (43%) answered "completely unethical" while a plurality of women (38%) answered "mostly unethical."

Of the 455 respondents, 402 (88%) offered explanations of one or more of their answers and 304 (67%) offered explanations for all seven of their answers, sometimes in considerable detail, often with more than one type of explanation for a single answer—a vivid indication of the survey's ability to stimulate discussion of ethical issues. In discussing

Table 2. Survey Findings

	Resume (% of 455 answers)	Pie Chart (% of 452 answers)	Photograph (% of 453 answers)	Evaluation (% of 449 answers)	Proposal (% of 444 answers)	Line Graph (% of 452 answers)	Warranty (% of 451 answers)
Completely Ethical	86.0%	38.7%	2.9%	30.5%	68.9%	9.1%	14.4%
Mostly Ethical	9.2	25.7	2.0	24.1	13.5	8.6	18.9
Ethics Uncertain	4.2	18.4	9.5	26.7	12.6	15.5	22.6
Mostly Unethical	0.2	9.7	9.5	12.9	2.3	33.8	29.7
Completely Unethical	0.4	7.5	76.1	5.8	2.7	33.0	14.4

Table 3. Survey Responses, Men versus Women

	Mean				
Group	Question 1	Question 2	Question 4	Question 6	Question 7
Men	1.274	2.484	2.645	3.973	3.276
Women	1.13	2.009	2.175	3.524	2.961

Table 4. Survey Findings, Men versus Women, Questions 4 and 6

Question 4 Evaluation			
	Answer	Men	Women
1	Completely Ethical	25.8%	34.6%
2	Mostly Ethical	20.4	27.2
3	Uncertain	26.9	26.8
4	Mostly Unethical	17.2	8.8
5	Completely Unethical	9.7	2.6
Question 6 Line Graph			
	Answer	Men	Women
1	Completely Ethical	7.0%	10.0%
2	Mostly Ethical	6.5	10.8
3	Uncertain	11.8	18.6
4	Mostly Unethical	31.7	38.1
5	Completely Unethical	43.0	22.5

their answers, men and women were equally cooperative: 89% of the men and 88% of the women explained one or more of their answers, and 65% of the men and 68% of the women explained all their answers.

I considered the explanations important because I wanted to know not only what people would do in a given situation, but why—thus to gain insight on their thinking as well as their actions. I analyzed the explanations and later reviewed my analysis to verify its accuracy and consistency. I examined and classified a total of 3,267 explanations, identifying nine categories (see Table 5).

I tried initially to classify the explanations according to their implied philosophy, such as Aristotle's golden mean (i.e., vice in the extremes, virtue in moderation), Kant's categorical imperative (i.e., unconditional and universal obligations of conscience), and Mill's principle of utility (i.e., the greatest good for the greatest number). While I could from time to time decipher the philosophical basis of a given explanation, however, it was impossible to do so with sufficient frequency or genuine confidence. My categories, as a consequence, are necessarily cautious, focusing on the explicit words of the explanations and avoiding interpretation of implicit philosophical perspectives. That is, I classified the explanations according to their locution as opposed to their illocution (Austin 1962).

Table 6 displays the distribution of the nine types of explanations for each of the seven survey questions. The most frequent type of explanation is *consequences*: it is also the prevailing explanation for five of the seven questions, with *specifications* the favorite explanation for the remaining two questions. The explanations are similarly divided across the nine categories for men and women in spite of the statistically significant differences in their survey answers (see Table 7).

With the exception of *insufficient information*, the least favorite answer is *reader's responsibility*: its highest frequency is 11% on Question 7—a clear rejection of a writer-based or caveat emptor philosophy of technical communication. Nevertheless, the explanation *writer's responsibility* is also atypical: its highest frequency is 12% on Question 1—a failure to affirm the STC principle "Hold myself responsible for how well my audience understands my message."

Also given little attention are *common practices* and *intentions*: their highest frequency is 20% and 17%, respectively, on Question 6. On Question 4, *principles* achieves its highest frequency, 15%.

The relative frequency of specific types of explanations, however, disguises the rarity with which individuals display a consistent guiding philosophy. Of the 304 respondents who explained

Table 5. Explanations of Ethical Decisions

Explanation	Definition	Example from survey
Common Practices	Explains that the design obeys or violates a common practice.	• "I'm used to this style of representing policies and warranties. It's the normal way we receive such information. We have learned to accept this." • "Normal practice in evaluations is to emphasize the positive. Any mention of negatives is really damning." • "This is a common practice."
Specifications	Cites the presence or absence of explicit design specifications or regulations.	• "The specifications stated one page—not a particular number of words." • "The prospective employer gave no guidelines for résumé design. Your font, font size, leading, kerning, etc. options are infinite." • "The client asked for a physical restriction by number of pages without specifying type size, leading, etc."
Reader's Responsibility	Declares that readers are responsible for deciphering the communication.	• "The reader of the graph has some obligation to check how the data is presented." • "The reader must be responsible for carefully evaluating the information." • "People are responsible for reading warranties and taking care of themselves! 'Let the buyer beware' is the credo of the business world."
Writer's Responsibility	Focuses on the writer's ability or obligation to design the communication appropriately.	• "The writer is being compensated to put his/her organization in the best light (or color) possible. This is being accomplished in the pie chart." • "Making information inaccessible isn't why I'm in this profession." • "As a technical communicator, my purpose is to communicate information as accurately as possible."
Writer's Intentions	Assesses the writer's motivations.	• "Underlying motive is dishonest—wanting audience to misinterpret information by not reading or readily comprehending it." • "The purpose is to deceive because you are hoping that the viewer will not understand what he/she is seeing." • "The intent is to deceive the reader and to lead him/her into ignoring important imformation."
Consequences	Emphasizes the positive or negative consequences of the design.	• "It changes the meaning of the results in a way the reader is not likely to discover." • "This could be construed as an advantage to the reader, having larger type, thus easier to read." • "This misleads the reader and does not factually represent the situation."

(*Continued on next page.*)

all their answers, only 3 offer a single type of explanation: either *consequences* or *intentions*. Of the remaining respondents, 243 (80%) offer four or more different types of explanations for their answers and the explanations are often contradictory. Consider, for example, one respondent's explanation for Question 6: "It is the reader's responsibility to carefully review the material." Here is the same respondent's explanation for Question 7: "It is your job to

Table 5. *(Continued)*

Explanation	Definition	Example from survey
Judgments	Offers a conditional or unconditional evaluation of the design.	• "If I can include more information and remain within the standard of making a page visually pleasing and readable, I think this is OK." • "As long as all of the info is there, phrased clearly, purposely making it hard to read is obnoxious and unadmirable, but not illegal." • "This is poor document design."
Principles	Identifies a guiding principle or ideal regarding the design.	• "For an evaluation, something as parallel as qualifications/deficiencies should be presented with parallel designs." • "Charts should show the data with neutrality (in general). Good points may be highlighted (if that is the purpose of the chart), but negative points should not be described in a fashion that misleads." • "The warranty should not be offered unless it's formatted so people can read it."
Insufficient Information	Offers no decision because of insufficient information.	• "It depends on who has asked you to evaluate the employee for promotion and why you want to de-emphasize deficiencies. " • "Depends on the size of the font used for the percentages and other characteristics of the graphic. A number of other factors could affect the 'perceived' size of each pie slice." • "Whether or not it is ethical depends on the product and the intended users of the product."

emphasize the positive aspects of your company. However, as a communicator it is important to assist the reader in comprehension."

Discussion

Technical communicators and technical communication teachers, regardless of their education and job experience, adopt similar ethical views on the questions of this survey. The perspectives of men and women, however, display statistically significant differences, pointing to psychological and social issues as possibly more important influences on the ethical choices of individuals. This finding of "strict" men and "lenient" women could also support Gilligan's claim that men ordinarily adopt a principle of justice to guide their ethical decisions, whereas women are more likely to exercise or integrate a principle of caring (1982, 1987). Nevertheless, on this survey, men and women offer virtually identical explanations of their answers, emphasizing the positive or negative consequences of a specific design decision.

The findings also indicate that practitioners and educators in the field of technical communication seem to have achieved consensus on the practice of shrinking type and leading to fit more information on a page (completely ethical) and on the manipulation of pictorial illustrations (completely unethical). A clear majority consider inflating type and leading to fit less information on a page, choosing colors for persuasive purposes, and using spacing to direct or divert the reader's attention to be ethical design practices. A majority consider graphic distortion unethical. Using typography to decrease readability, however, elicits a divided opinion, even though the practice opposes the earlier mentioned STC directive: "Hold myself responsible for how well my audience understands my message."

While individuals offer a variety of explanations for their ethical choices and thus display no single guiding philosophy, the totality of the survey answers and explanations do espouse a basic principle of ethical document design: The greater the likelihood of deception and the greater the injury to the reader as a consequence of that deception, the more unethical is

Table 6. Frequency of Explanations

	Résumé	Pie Chart	Photograph	Evaluation	Proposal	Line Graph	Warranty
Consequences	106	160	243	118	118	207	117
Specifications	177	2	6	3	132	4	11
Judgments	73	83	57	77	111	66	75
Common Practices	39	29	2	16	20	108	80
Writer's Intentions	15	58	74	31	15	94	73
Principles	14	24	38	63	43	19	36
Writer's Responsibility	57	43	2	47	30	12	18
Reader's Responsibility	6	28	2	25	4	32	54
Insufficient Information	2	14	8	29	3	2	12

Table 7. Frequency of Explanations, Men versus Women

	Men (%)	Women (%)
Common Practices	9	9
Specifications	9	10
Reader's Responsibility	4	5
Writer's Responsibility	6	7
Writer's Intentions	11	11
Consequences	34	32
Judgments	16	17
Principles	8	7
Insufficient Information	3	2

the design of the document. If deception and injury are unlikely, the design choices are ethical. In determining likelihood and weighing the degree of resulting injury, the writer might consider several issues, including typical communication practices, professional responsibilities, and explicit specifications and regulations, as well as rhetorical intentions and ideals.

This is essentially a "goal-based" philosophy: that is, "the rightness or wrongness of an action is a function of the goodness or badness of its consequences" (Wicclair and Farkas 1984, p. 15). It is also basically a negative guideline, emphasizing practices to avoid.

Is a philosophy that emphasizes consequences a sufficient or satisfactory basis of ethical decisions? If I decide the ethics of a situation according to its consequences, am I ethically obliged to weigh all the consequences? Consider Question 5 (the inflated proposal): none of the people citing consequences to justify their answer mention the ecological consequences of the scenario: that is, by inflating the proposal from 21 pages to 25 pages, the writer is obviously using paper unnecessarily. In a world of limited resources, is this ethical? Is it only the direct and immediate consequences that are important? Which consequences does the technical communicator ignore? Are the consequences to the writer or to the profession unimportant? Do writers jeopardize their credibility by exercising the little deceptions of Question 2 (the pie chart), Question 4 (the evaluation), or Question 7 (the warranty)? Does success with a little deception encourage a writer to practice bigger deceptions? Do such practices damage the reputation of all technical communicators? Is it always possible for individual writers on the job to perceive the direct and indirect consequences of their design decisions or to judge which consequences are important and which are unimportant? Is this expectation itself impractical and unethical?

Technical communicators thus seem to operate in isolation, without a guiding philosophy that genuinely guides, that espouses the considered opinion of the profession regarding ethical communication, a considered opinion achieved and disseminated through a comprehensive discussion of the technical communicator's several obligations—to himself or herself, to his or her organization, to the audience, to the subject, to the profession, and to society. Without this principle of "considered practice" to guide their decisions regarding document design, technical communicators have the virtually impossible job of continuously adapting their individual ethical practices to the rapid advances of computerized technology and the new rhetorical powers that such advances never cease to offer.

Conclusions and Recommendations

As I mentioned at the beginning of this article, the ethics of document design has received little investigation from technical communicators. Ideally, this survey and its tentative findings will encourage more exploration of this important topic. Specifically, additional research is necessary on other issues of document design such as the implications of line length, italics, white space, or the size and position on the page of illustrations. More study is needed to determine whether other document design issues or other ethical questions elicit different types of explanations or guiding principles. Also essential is research to verify or qualify the differences between men and women identified in this survey. Do men and women differ in their evaluation of other document design issues? Are women more lenient or men more strict in judging other ethical issues? What social or psychological factors might contribute to this difference?

The high response rate to this survey and the enthusiasm of the respondents in explaining their answers are indicators of the perceived importance of this subject and the efficacy of this survey in raising ethical questions and stimulating discussion. Similar instruments might be devised for addressing the ethics of invention, arrangement, and style. Especially important is the national distribution of the survey, allowing technical communicators to judge their answers to the questions relative to a cross-section of the profession. For example, I imagine that the respondents who cited "reader's responsibility" to justify their ethical choices would be surprised to discover the rarity of this explanation on the survey and might thus be motivated to review or revise their principles and practices. I recommend that STC periodically distribute brief surveys of ethical questions and report the results of such surveys to the membership to encourage a continuing examination of ethical issues. I also recommend that the surveys be distributed internationally to permit investigation of cultural differences regarding professional ethics.

A widely distributed survey, however, has its limitations. In this survey, for example, the written explanations of answers proscribed a reliable interpretation of the implied philosophical perspectives that guided ethical choices. The explanations were thus classified according to their explicit wording as opposed to their implicit meaning. A more intensive investigation would be possible if the questions of a survey could also be addressed during personal interviews with a restricted but representative population of teachers and practitioners.

In addition, STC could review its Code for Communicators, soliciting commentary from the membership and encouraging a comprehensive analysis of ethical issues. For example, STC might consider revising its directive "Hold myself responsible for how well my audience understands my message" to give it either more specificity or more emphasis. This principle, though pertinent to the ethics of document design, fails to serve as a consistent ethical guideline for technical communicators and technical communication teachers.

I would also encourage the Association of Teachers of Technical Writing (ATTW) to address (through its journal, newsletter, publication series, and e-mail list) its ethical obligation to teach the ethics of technical communication. Is it ethical to teach the techniques and principles of document design without also discussing the ethics of document design? If level of education has little or no influence on the ethical decisions of technical communicators, is it because teachers ignore the subject of ethics? If level of professional experience also has no impact on ethical decisions, is it because technical communicators were never taught to consider the ethical implications of their rhetorical power?

People ordinarily like to think of themselves as ethical. I'm no exception. But I also imagine that it is all too often easy for each of us to get caught up in the immediate needs of the organizations for which we work, to feel the pressures of personal ambition, to do that which is convenient, to want whatever it takes to satisfy the boss or client while completing the job on time and within budget, and to rationalize the dubious practices we momentarily adopt. Periodic self-examination is thus important as a way of orienting ourselves again as professionals and reaffirming the principles of ethical communication. Quite possibly the most ethical thing we can do as a profession is to nourish the ongoing discussion of ethical issues. Ω

Acknowledgments

I am grateful to the STC Research Grants Committee for its generous support of this project; to four anonymous reviewers for their perceptive and detailed advice; and to

the members of STC who participated in this survey for sharing with me their time and their ideas about ethics.

REFERENCES

Aristotle. 1980. *The Nicomachean ethics.* Trans. David Ross. New York, NY: Oxford University Press.

Austin, J. L. 1962. *How to do things with words.* Cambridge, MA: Harvard University Press.

Benson, Phillipa J. 1985. "Writing visually: Design considerations in technical publications." *Technical communication* 32: 35–39.

Bryan, John. 1992. "Down the slippery slope: Ethics and the technical writer as marketer." *Technical communication quarterly* 1, no. 1: 73–88.

Buccholz, William James. 1989. "Deciphering professional codes of ethics." *IEEE transactions on professional communication* 32, no. 2: 62–68.

Clark, Gregory. 1987. "Ethics in technical communication: A rhetorical perspective." *IEEE transactions on professional communication* 30, no. 3: 190–195.

Code, Lorraine, Sheila Mullett, and Christine Overall, eds. 1988. *Feminist perspectives: Philosophical essays on methods and morals.* Toronto, Canada: University of Toronto Press.

Dragga, Sam. 1992. "Evaluating pictorial illustrations." *Technical communication quarterly* 1, no. 2: 47–62.

Dragga, Sam. 1993. "The ethics of delivery." In *Rhetorical memory and delivery: Classical concepts for contemporary composition and communication,* ed. John Frederick Reynolds, pp. 79–95. Hillsdale, NJ: Erlbaum.

Felker, Daniel B., et al. 1981. *Guidelines for document designers.* Washington, DC: American Institutes for Research.

Geary, David C., Jeffrey W. Gilger, and Barbara Elliott-Miller. 1992. "Gender differences in three-dimensional mental rotation: A replication." *Journal of genetic psychology* 15, no. 1: 115–118.

Gilligan, Carol. 1982. *In a different voice: Psychological theory and women's development.* Cambridge, MA: Harvard University Press.

Gilligan, Carol. 1987. "Moral orientation and moral development." In *Women and moral theory,* ed. Eva Feder Kittay and Diana T. Meyers, pp. 19–33. Totowa, NJ: Rowman and Littlefield.

Girill, T. R. 1987. "Technical communication and ethics." *Technical communication* 34: 178–179.

Goldstein, David, Diane Haldane, and Carolyn Mitchell. 1990. "Sex differences in visual-spatial ability: The role of performance factors." *Memory and cognition* 18, no. 5: 546–550.

Johannesen, Richard L. 1990. *Ethics in human communication.* 3d ed. Prospect Heights, IL: Waveland Press.

Kant, Immanuel. 1964. *Groundwork of the metaphysic of morals.* Trans. H.J. Paton. New York, NY: Harper & Row.

Kittay, Eva Feder, and Diana T. Meyers, eds. 1987. *Women and moral theory.* Totowa, NJ: Rowman and Littlefield.

Kostelnick, Charles. 1990. "The rhetoric of text design in professional communication." *The technical writing teacher* 17, no 3: 189–202.

Larrabee, Mary Jeanne, ed. 1993. *An ethic of care: Feminist and interdisciplinary perspectives.* New York, NY: Routledge.

Mill, John Stuart. 1957. *Utilitarianism.* Ed. Oskar Piest. Indianapolis, IN: Bobbs-Merrill.

Monmonier, Mark. 1991. *How to lie with maps.* Chicago, IL: University of Chicago Press.

Murch, Gerald M. 1985. "Using color effectively: Designing to human specifications." *Technical communication* 32: 14–20.

Noddings, Nel. 1984. *Caring: A feminine approach to ethics and moral education.* Berkeley, CA: University of CA Press.

Olson, Darlene M., and John Eliot. 1986. "Relationships between experiences, processing style, and sex-related differences in performance on spatial tests." *Perceptual and motor skills* 62, no. 2: 447–460.

Perica, Louis. 1972. "Honesty in technical communication." *Technical communication* 15: 2–6.

Peterson, Becky K. 1983. "Tables and graphs improve reader performance and reader reaction." *Journal of business communication* 20, no. 2: 47–55.

Plunka, Gene A. 1988. "The editor's nightmare: Formatting lists within the text." *Technical communication* 35: 37–80.

Radez, Frank. 1980. "STC and the professional ethic." *Technical communication* 27: 5–6.

Rubens, Philip M. 1981. "Reinventing the wheel?: Ethics for technical communicators." *Journal of technical writing and communication* 11, no. 4: 329–339.

Sachs, Harley. 1980. "Ethics and the technical communicator." *Technical communication* 27: 7–10.

Schriver, Karen A. 1989. "Document design from 1980 to 1989: Challenges that remain." *Technical communication* 36: 316–331.

Shimberg, H. Lee. 1980. "Technical communicators and moral ethics." *Technical communication* 27: 10–12.

Society for Technical Communication. 1992. *Profile* 92: *STC special report.* Arlington, VA: Society for Technical Communication.

Togo, Dennis F., and Jacqueline H. Hood. 1992. "Quantitative information presentation and gender: An interaction effect." *Journal of general psychology* 119, no. 2: 161–168.

Tufte, Edward R. 1983. *The visual display of quantitative information.* Cheshire, CT: Graphics Press.

Walzer, Arthur E. 1989. "Professional ethics, codes of conduct, and the Society for Technical Communication." In *Technical communication and ethics,* ed. John R. Brockmann and Fern Rook, pp. 101–105. Arlington, VA: Society for Technical Communication.

White, Jan V. 1982. *Editing by design.* 2d ed. New York, NY: Bowker.

Wicclair, Mark R., and David K. Farkas. 1984. "Ethical reasoning in technical communication: A practical framework." *Technical communication* 31: 15–19.

Williams, Robert I. 1983. "Playing with format, style, and reader assumptions." *Technical communication* 30: 11–13.