Free your content with Doc-To-Help: publish your content where it’s accessible. How? Just write in Microsoft Word or Doc-To-Help’s advanced editor, & Doc-To-Help will publish professional-quality deliverables for use on the Web, tablets, phones, desktop computers, & print.

Download a Free Trial @ doctohelp.com
What is a technical communicator? Technical communicators develop and design instructional and informational tools needed to ensure safe, appropriate, and effective use of science and technology, intellectual property, and manufactured products and services. Technical communicators combine multimedia knowledge and strong communication skills with technical expertise to provide education across the entire spectrum of users’ abilities, technical experience, and visual and auditory capabilities. For more information visit www.stc.org/story/tc_tw.asp.

The Society for Technical Communication is the largest association of technical communicators in the world. STC is currently classifying the Body of Knowledge for the field and communicating the value of technical communication. Its volunteer leadership continues to work with government bodies and standards organizations to increase awareness and accurate perception of technical communication. Membership is open to all with an interest in technical communication. Visit the STC Web site (www.stc.org) for details on membership categories, fees, and benefits.
“I’VE BEEN ABLE TO Evolve AND LEARN AS MY CAREER HAS Evolved, THANKS TO STC!”

“STC has evolved since I first became a member and has begun to treat this profession of technical communication much more broadly. And that broadening of scope is critical as the careers of our members evolve. Over the years, my own career has moved from technical writing and editing to management and talent development. STC still ‘fits’ me as a professional organization because it addresses those larger issues.”

STC.org/renew

MY NAME IS LIZ HERMAN AND

I’M AN STC MEMBER
ARTICLES

APPLIED RESEARCH

94 Deep Audience Analysis: A Proposed Method for Analyzing Audiences for Environment-Related Communication
Derek G. Ross

APPLIED RESEARCH

118 Amateur Hour: Credibility Testing for Small Business Web Sites
Heidi L. Everett

APPLIED RESEARCH

131 The Minimalist Approach to Online Instructional Videos
Ehren Helmut Pflugfelder

DEPARTMENTS

91 EDITORIAL
The Role of Theory in Technical Communication
Menno D.T. de Jong, Editor

147 BOOK REVIEWS
Jackie Damrau, Editor

ONLINE ONLY
TECHCOMM.STC.ORG

E19 RECENT & RELEVANT
Lyn Gattis, Editor
INSTRUCTIONS FOR AUTHORS

About the Journal

Technical Communication is a peer-reviewed, quarterly journal published by the Society for Technical Communication (STC). It is aimed at an audience of technical communication practitioners and academics. The journal’s goal is to contribute to the body of knowledge of the field of technical communication from a multidisciplinary perspective, with special emphasis on the combination of academic rigor and practical relevance.

Technical Communication publishes articles in five categories:

• **Applied research** – reports of practically relevant (empirical or analytical) research

• **Applied theory** – original contributions to technical communication theory

• **Case history** – reports on solutions to technical communication problems

• **Tutorial** – instructions on processes or procedures that respond to new developments, insights, laws, standards, requirements, or technologies

• **Bibliography** – reviews of relevant research or bibliographic essays

The purpose of Technical Communication is to inform, not impress. Write in a clear, informal style, avoiding jargon and acronyms. Use the first person and active voice. Avoid language that might be considered sexist, and write with the journal’s international audience in mind.


Manuscript Preparation and Submission

Submitting a manuscript to Technical Communication for review and possible publication implies that its submission has been approved by all authors, researchers, and/or organizations involved, that the manuscript (or a substantial portion) has not been published before, and that the manuscript is not under review elsewhere.

When using previously published materials (for example, images or text excerpts), authors are responsible for obtaining the permissions needed to reprint copyrighted materials.

The typical article length is between 5,000 and 8,000 words. Exceptions are possible.

Use up to three levels of headings, and indicate them clearly. Do not number headings of sections and subsections.

**FIRST-LEVEL HEADING**

(all caps, on a line by itself)

**Second-level heading**

(first word only capitalized, bold, on a line by itself)

**Third-level heading**

(first word only capitalized, bold, followed by two spaces, as part of the first line of the paragraph)

Except for the cover page, remove all identifying information from the manuscript. This includes author names, author affiliations, acknowledgments, and references to work in progress or unpublished manuscripts.

Do not use footnotes. Instead, use author-date citations within the text, and provide a complete list of works cited (labeled “References”). Avoid multiple citations for ideas or approaches unless they demonstrate an evolution in thought or practice.

Check all author-date citations within the text and all entries in the reference list for both accuracy and conformance to the *Publication Manual of the American Psychological Association* (APA), pp. 169–224.

Submit your manuscript as a double-spaced electronic file with one-inch margins. Do not attempt to mimic the format or layout of a published article. Keep the layout as clean and simple as possible.

Microsoft Word files are preferred. If you use another word processor, a Rich Text Format (RTF) file is also acceptable. Organize your manuscript as follows:

• Page 1: Cover page – Title of the manuscript, a running head, and the names, affiliations, and contact info of all authors

• Page 2: Structured abstract – A summary of the article (maximum 250 words), using the headings “Purpose,” “Method,” “Results,” and “Conclusion”

• Page 3: Up to five keywords and a practitioner’s take-away (maximum 100 words) – A bulleted list summarizing the practical implications of the article

• Page 4: Start of the manuscript

• References

• Tables and figures – Start each table or figure on a new page.

Send the manuscript as an attachment to an e-mail message to the editor-in-chief, Menno de Jong (e-mail: TCEditor@gw.utwente.nl).

Review Process

The editor-in-chief will read your manuscript and check its potential suitability for the journal. In the case of a positive outcome, the manuscript will be sent to three independent referees for a double-masked review. On the basis of the referees’ recommendations, the editor will send you a decision about the manuscript. There are five possibilities: (1) reject, (2) revise and resubmit, (3) accept with major revisions, (4) accept with minor revisions, and (5) accept as is.

Copyrights

The Society for Technical Communication requires that authors transfer copyrights to STC for articles appearing in *Technical Communication* and grant STC permission to post the articles on Technical Communication Online for an indefinite period. STC will grant colleges, universities, and libraries the right to use the articles free of charge for educational purposes.
The Role of Theory in Technical Communication

“There is nothing so practical as a good theory.” This is a famous quote by the founder of social psychology, Kurt Lewin. A quote that has been misused by scholars in a wide variety of disciplines who do not care about the practical relevance of their work. But also a viewpoint that may be overlooked by scholars who are primarily focused on making practically relevant contributions.

Technical Communication has always emphasized the importance of the practical relevance of articles. After all, the journal’s audience consists of practitioners and academics. But there is a more fundamental reason as well. The journal presupposes that technical communication is an instrumental discipline: a discipline that eventually seeks to contribute to the effectiveness of communicating about technology, a discipline that aims to support technical communication practitioners in their jobs. It is a discipline that, so to speak, resembles medicine more than biology.

In the past decades, technical communication has made the successful transition from an informal and intuition- or expertise-based discipline to a more formal and research-based discipline. Empirical research methodology and formalized analytical approaches have become more important, both in academic and in applied research. But where does the theory of technical communication stand now that the journal celebrates its 60th anniversary?

Notions of the Concept of Theory

There are many notions of the concept of theory. The most simplistic one is that a contribution is theoretical when it lacks practical relevance. I have often encountered this in practice, for instance in selection processes for research funding. Scholars who do not have any practical aims almost automatically score high on the theoretical contribution of their research plans, whereas scholars who propose practically relevant research are easily suspected of not making a real theoretical contribution. In the field of technical communication, all publications that do not eventually contribute to the adaptation of technology to human needs, to the usability of technical devices or instructions, to the process of creating user support, or to the profession of technical communication practitioners would be characterized as theoretical in this definition. The term “theoretical” then serves as a euphemism for practically irrelevant.

A more fruitful definition of theory refers to knowledge that is, to some extent, generalizable, verifiable, falsifiable, and predictive. A theory exceeds specific research contexts, and can be tested—in some cases with formal experiments, in other cases with less straightforward empirical data. In the context of technical communication, a theory would offer practitioners guidance in their daily work, not by prescribing them what to do, but by helping them to understand and make sense of their situation. This is, in my view, the kind of theory that Kurt Lewin must have been referring to.

Another, more superficial characteristic of a theory is that it is more or less formalized. It has a name with words like “theory,” “model,” or “hypothesis.” It is referred to by other scholars, and investigated in several studies. It is, in other words, a social construction, and may be connected to standard research instruments with known psychometric properties.

Technical Communication Theories

When reading the main technical communication journals, I cannot help but make a number of observations that call for reflection. First, there are many contributions in our field that do not seem to aim at the core of technical communication (effectively communicating about technology) and do not seem to have any practical relevance. I can understand people investigating communication in general as a cultural phenomenon, but the usefulness of technical communication as a non-instrumental discipline is in my view debatable.

Second, despite the growth of an empirical tradition, there are...
very few real theories available in our field. Theories that help us understand users of technology, their selection of information sources, their informational needs, the way they use (or do not use) instructions, the causes of usability problems, the effects of visual and verbal information, the effects of different types of user support, and the problem of intercultural communication. Or theories that help us understand the process of efficiently creating user support, the collaboration between technical communicators and engineers, and the use of applied research techniques. Or theories that help us understand the nature of expertise in technical communication, the role of communication skills, the way communication skills can best be taught, and the role of empathy and perspective-taking. Of course, these are only examples. There are several studies that contribute to our knowledge on these issues, but they often do not exceed the level of single studies, and they do not seem to aim at formalizing theory, and preparing it for further investigation.

Third, empirical contributions are often either entirely descriptive (trying to map a current situation), or predominantly prescriptive (formulating guidelines or heuristics). In my view a step toward useful theory-building

---

Frank R. Smith Outstanding Article Award 2012

Each year, an independent jury of three researchers and practitioners selects one outstanding article and up to three distinguished articles that appeared in Technical Communication during the previous calendar year. This year’s jury members were Jan Uljin (chair), Editorial Advisory Board member Michelle Corbin, and winner of last year’s Distinguished Article Award, Luc Desnoyers. The award honors the memory of Frank R. Smith, during whose 18 years as editor this journal became established as the flagship publication of STC and of the profession. This year, the jury selected one outstanding and two distinguished articles.

2012 Outstanding article in Technical Communication

Hanna Jochmann-Mannak, Leo Lentz, Theo Huibers, and Ted Sanders. Three types of children’s informational Web sites: An inventory of design conventions. (November 2012)

“For its focus on the core tenets of technical communication (audience analysis, use cases and scenarios, and information design); for analyzing a large corpus of children’s Web sites to identify and better understand what design conventions exist today; and for putting this research in the context of one of the most interesting literature reviews that described the cognitive development of children and its impact on general Web site design principles on scanning, searching, and browsing. This article inspires, informs, and directs practitioners and academics alike.”

2012 Distinguished articles in Technical Communication

Saul Carliner. Using business models to describe technical communication groups. (May 2012)

“For providing an excellent introduction to the management theory of business models, detailing a taxonomy of business models for technical communication groups, and reviewing the implications for practicing technical communicators. Technical communicators can apply this theory to better identify and choose a technical communication position in a variety of companies.”


“For identifying a set of best practices that practitioners can readily apply when creating instructional videos, for identifying the communication design features of good videos, and for completing a rhetorical analysis of instructional videos.”
requires a focus on understanding and explaining, instead of describing or prescribing. For instance, we know much about the kinds of courses currently offered in technical communication programs, and we also know what kinds of competencies employers ask of technical communicators, but do we know what makes a good technical communicator and how they acquire the relevant competencies?

Fourth, the topics addressed in the technical communication literature are very diverse, and there seems to be a tradition of continuously exploring new topics instead of deepening existing insights. This tendency, although innovative and fresh, is not beneficial for the chances of building substantial theories.

I would like to argue that practical relevance is a sine qua non for theories in technical communication, and that it may be useful to view research contributions more from a theoretical perspective.

In This Issue
This issue includes three articles. The first article was written by Derek Ross. He developed and tested a method of “deep audience analysis” in the context of environment-related communication. He describes the rationale of his approach and explains the procedure for technical communicators who want to use it.

The second article was written by Heidi Everett. She focused on the credibility of small business Web sites. She developed a six-step process of conducting a cost-effective credibility test, and illustrates the process using a particular small-business Web site.

The third article, by Ehren Pflugfelder, focuses on the use of minimalist design principles in the design of so-called Web-app videos. He does this in an educational context. The effects were tested using a student instruction of minimalist documentation concepts and heuristics.

IN MEMORIAM: A. Stanley Higgins

We are saddened to lose one of the great former editors of Technical Communication. On 3 March, A. Stanley Higgins passed away. He served as the journal’s editor for an impressive 15 years, from 1961 to 1976. In an interview with Ed Malone, he stated that he was most proud of the fact that he “kept the journal going.” He probably put into words the feelings of all his successors. We will keep on keeping the journal going, with great respect and thankfulness for his contribution to the field.
Deep Audience Analysis: A Proposed Method for Analyzing Audiences for Environment-Related Communication

Derek G. Ross

Abstract

Purpose: In this article I propose an audience analysis instrument designed to assess representative members of a desired target population’s underlying predispositions in terms of the sources of information they privilege, their motivations toward environment-related action, and the commonplaces that impact their perceptions of environment-related communication. The goal of this method is to offer a time- and cost-effective instrument that enables organizations to easily classify an audience’s interest in environmentalism, assess their willingness to listen to and accept environment-related messaging, and pinpoint the commonplace elements likely to be most useful in constructing environment-related communication.

Method: I developed the interview, coding sheet, instructions for completing the process, and glossary that make up the Deep Audience Analysis instrument from existing data presented elsewhere (Ross 2013, 2012, 2008), and refined the instrument through both participatory design and usability testing.

Results: The results of my testing suggest that the Deep Audience Analysis tool I propose is both valid and reliable, but training with the instrument would prove beneficial, and triangulation with multiple coders is optimal. Organizations adopting this method of audience analysis would do well to practice with the instrument and have norming sessions before putting the instrument to use in the field.

Conclusion: The audience analysis instrument I propose here includes an interview script, code sheet, instructions for completing the process, and glossary. The method proposed here should serve as a time- and cost-effective paper-based strategy for organizations wishing a deeper understanding of their audience(s).

Keywords: audience analysis, environmental communication, environmental rhetoric, organizational communication

Practitioner’s Takeaway

- Effective audience analysis allows individuals and organizations to more effectively communicate with their audience(s).
- Audience analysis measures are often expensive, complex, and/or result in acquisition of non-target data which hinders application of analysis results.
- The instrument I propose is a qualitative, practical, analog, step-by-step approach that does not require training in statistical analysis or software packages and yields an overarching audience profile designed for direct application.
- The instrument appears both valid and reliable and could be easily modified for use outside of environment-related communication.
Introduction

“To write, to engage in any communication, is to engage in a community: to write well is to understand the conditions of one’s own participation—the concepts, values, traditions, and style which permit identification with that community and determine the success or failure of communication” (Miller, 1979, p. 617).

In the summer of 2011, the Sierra Club released an Internet-based video detailing the problems associated with once-through cooling in coal plants. “Chopper,” animated by Pulitzer Prize-winning cartoonist Mark Fiore (Sierra Club, 2011), features a lilting-voiced narrator and cartooned elements, such as a talking coal plant. The video’s stated intent is to encourage its audience to “send a message to the EPA [Environmental Protection Agency]” to “urge the Agency to protect our fish and waterways by requiring water-saving, fish-protecting cooling towers on power plants!” According to a representative from the Sierra Club, the primary audience for the video consisted of the general public, and more directly, members of the Sierra Club. The club chose key phrases and images, such as a river surface coated with cartoon blood, fish parts, and bones to trigger action while presenting a large amount of complex information—how once-through cooling in power plants works and its environmental impact—in a brief, yet positive and engaging manner (Sierra Club Representative, personal communication, January 11, 2012).

When the video debuted, I was teaching an environmental rhetoric, ethics, and public policy graduate-level course. We watched the video. My students—for the most part 20-30 year-old females who claimed awareness of Internet use and social networking skills—did not respond as we believed the Sierra Club intended. They laughed, not with the video, but at the narrator, the child-like song, and the talking coal plant. They commented that the video could not be taken seriously and agreed they were not inspired to take action. The Sierra Club representative with whom I spoke, however, explained that the video ultimately did work—it garnered over 30,000 trackable views and facilitated communication with the EPA—and why it worked: careful audience analysis and dissemination. The Club initially included a link to the video in an email to Sierra Club members, targeted partially based on key words and phrases from the Club’s extensive member database. Ultimately, however, views of the video itself were fewer than some of their other projects (according to the representative, for example, their Beyond Coal Breakdance Mob garnered over a million views), and only one comment from the public-at-large (at the time of this writing) had been posted to the video’s YouTube page: “What a bunch of BS wrapped in a cartoon” (YouTube, 2012).

The “Chopper” video illustrates an interesting case of environmental messaging in relation to audience analysis—environmental messages must be tailored to their audience in order for them to be effective. Movement outside of an intended primary audience appears to lessen impact, or, as the one response on YouTube suggests, even have a negative effect. Not all organizations have the tools that the Sierra Club uses to analyze its audiences. Not all organizations can afford unintended effects beyond the intended audience (see, for example, Lancaster, 2006). While the Club uses its extensive membership database to determine how to best create and distribute messages to members, and even employs a polling and research strategist (personal communication, January 11, 2012), other organizations may need to use less expensive, more immediately available means to learn how to shape their messages. As noted by Swenson, Constantinides, and Gurak, “audience analysis methodologies [such as developing and maintaining an effective database like that employed by the Sierra Club] are often difficult, time consuming, and economically unfeasible” (2002, p. 350).

My goal with this paper is to propose an audience analysis instrument designed to assess representative members of a desired target population’s underlying predispositions in terms of the sources of information they privilege, their motivations toward environment-related action, and the commonplace elements that impact their perceptions of environment-related communication. The goal of this method is to offer a time- and cost-effective instrument that enables organizations to easily classify an audience’s interest in environmentalism, assess willingness to listen to and accept environment-related messaging, and pinpoint the commonplace elements likely to be most useful in constructing environment-related communication. To create this instrument, I developed an interview script, code sheet, instructions for completing the process, and glossary based on
existing interview data. I refined the coding package through both participatory design and usability testing.

**Evolving Audience Analysis**

In 1975, Walter Ong suggested that audience is a “collectivity” (1975, p. 11) where members read individually, but those with shared interests can function as a cohesive whole. Ong argued that the writer must “construct in his imagination, clearly or vaguely, an audience cast in some sort of role [...]” (p. 12). In doing so, he notes, the writer imagines an audience to use as a tool for shaping creative work. Such a view creates an imagined intimacy with the reader that allows complex and emotional communication and interaction. As Simons (1976) points out, different types of audience interaction contribute to decision-making, as do the rhetorical strategies employed by writers. Ong’s construction, then, is a persistent argument and so serves as a fitting beginning toward a consideration of audience.

Ong’s construction of the audience as fictional, however useful a tool, raises problems for technical communicators. The impact of our writing is often direct and measurable: our audiences, as Tomlinson (1990) and Warren (1993) note, are not imaginary. They are “flesh-and-blood individuals who buy, open, and read any printed materials” (Goodwin, 1991, p. 100) who have “values, beliefs, perspectives, knowledge, authorities, politics, expectations, and constraints than enable or limit their ability to read and use technical documents” (Bosley, 1994, p. 296). Even if we must design work for large, somewhat ambiguous collectives, we still need to pinpoint actual users to serve as representatives so that we can effectively design information for the rest of the imagined construct (see, for example, Swenson, Constantinides, & Gurak, 2002). Thus, audience becomes an increasingly complex problem in technical communication—technical communicators are tasked with learning how to define their audience, deciding how best to analyze them, and then determining how to design information for them.

**Defining Audience**

In “Audience Addressed/Audience Invoked,” Ede and Lunsford (1984) address the ways writers consider audience via the differences between an “addressed” and “invoked” audience. An “addressed” audience is emphasized by writers who value real-world writing and believe that understanding of audience may be achieved through observation and analysis, while an “invoked” audience is used by those who believe that audience complexity precludes ever truly knowing how an audience will respond to a piece of writing. Both views are valuable, particularly to technical communicators—we need to learn that we can more completely understand audiences than ever before because of advances in theory, analysis techniques, and technology (see, for example, Van Velsen, Van der Geest, & Steehouder, 2010).

Hovde (2000) notes that technical communicators often struggle when they lack access to, or awareness of, their audience (pp. 398-399). While several studies note that many organizations do help technical communicators gain an understanding of their target audience (Bist, Dixon, & Chadwick, 1993; Floreak, 1989; MacKinnon, 1993), other studies (Simpson, 1989) note that direct access may be difficult or impossible. However, it cannot be denied that direct and timely access to real members of an audience/population is most useful (Hovde, 2000, p. 429; Johnson, 1997, p. 363; Schriver, 1997, p. 161; Spilka, 1990, p. 45-49).

Perhaps one reason why audience analysis has at times been attacked (Cohen, 1990) is because it is easy to make the mistake of viewing audience as a passive recipient in the communication process, rather than a user, doer, or participant (Slack, Miller, & Doak, 1993). Once we accept that our audience members actively use the information we design and that they participate in popular culture while contributing to knowledge creation (Hermes, 2009), we can make an effort to pinpoint representative users and begin to assess needs and expectations more effectively.

**Analyzing Audience**

Alberty (1997) notes that Ede and Lunsford’s approach to audience analysis (1984) involves two essential elements: audience analysis and audience awareness. The analysis component seeks concrete information such as demographics and cultural associations, while the awareness component, as described by Caricato (2000), draws inferences from analyses and utilizes direct feedback from representative members of a target audience. Both modes are deeply entwined and are
vital for the complex understanding of users needed by effective communicators.

Both of Ede and Lunsford’s approaches rely on a demographic component for an initial snapshot of audience, and it is a key component of most audience analysis systems. An analytical approach that forms inferences of audience from demographic information, however, creates the danger of stereotyping (Black, 1989; Long, 1990), or can entirely overwhelm a writer with too much nonessential information. It becomes the author’s role to determine what information is needed for effective design. As Dragga and Gong (1989) note:

The modern ability to gather seemingly infinite amounts of demographic information [...] requires that the gathering of data be limited to only that information which has relevance to the speaker’s specific communicative aim. This purpose-oriented analysis is the initial modification of the Aristotelian formulation: instead of asking all possible questions about a particular audience, the speaker asks only those questions that deal with the rhetor's specific rhetorical purpose. (p. 20)

Thus, as Hovde (2000) writes, “simply collecting facts about an audience may be insufficient” (p. 398). While we know that demographic variables are important and can significantly impact the way information is designed and published (see Lippincott’s 2004 discussion on age-related variables, for example), determining which variables on which to focus and why should be an initial component of the analysis process.

Houp and Pearsall (1988) offer questions related to knowledge, experience, relationship, and persona (pp. 20-21), which form the framework of more complex modes of audience analysis—methods which consider factors such as prior knowledge, projected responses to visual layout, level of reading, and comfort levels with knowledge being presented (for example, Allen, 1989). These increasingly complex methods of analysis can be sorted into types. Warren (1993), for example, notes three “increasingly complex” (p. 83) classes: demographic analyses, which ask questions about people to infer group characteristics; organizational analyses, which work to determine a reader’s organizational role and their needs; and psychological analyses, which ask what readers’ needs are in terms of what they need to know, what they need help understanding, and what the writer wants the reader to do with the information.

Similar to Warren’s organizational and psychological labels are cognitive-based or intuition-driven approaches. As described by Bocchi (1991), a cognitive-based approach “centers on the individual writer’s creation of a text for the rhetorical situation, essentially a problem-solving process” (p. 153). Such an approach is illustrated in Pearsall’s (1997) suggestion that authors document key elements related to audience, such as such as: “Reader's concerns and characteristics;” “Reader's education and experience in the subject area;” and “Reader’s attitudes toward my purpose.” He suggests that once you have completed this analysis, “you are ready to choose your content and to organize it in the way that best suits your purpose and audience” (p. 11). Similar approaches are often espoused in technical communication textbooks and accompanied by forms to aid the author (see, for example, Markel, 2010, p. 102; and Burnett, 2001, p. 69).

An intuition-driven approach (Bocchi, 1991; Schriver, 1997) uses conversations with members of a community to help form models of the rest of the community. As Schriver notes, intuition-driven audience analysis involves the creation of a “mental construct of imagined readers” (p. 157), which allows communicators to visualize the audience to whom they are writing, then shape communication to address that imagined audience’s needs and expectations. The intuition-driven approach is similar to Longo’s (1993, 1995) value-driven approach, which suggests that an author can determine “how the reader’s community values the subject” through “articles in journals and newspapers, interviews with community members, and your interpretations of graphic material” (1993, p. 168). Referring to Young, Becker, and Pike (1970), Longo notes that some respondent/community values will be more important than others, so the designer must give those socially-important elements priority.

To the intuition-driven approach, Karen Schriver (1997) adds classification- and feedback-driven approaches. In the classification-driven approach, “communicators begin their analysis by brainstorming about the audience and by cataloging audience demographics (for example, age, sex, income, educational level) or psychographics (for example,
values, lifestyles, attitudes, personality traits, work habits)” (p. 155). A feedback-driven approach is one in which the analysis is based on an examination of “real readers interpreting real texts” (p. 160). Such an approach is akin to participatory design or usability testing. In this model of audience analysis, readers are given copies of a text, then observed and questioned as they engage with the content. Such an approach helps a communicator understand how a reader will approach the communication artifact, and what they will likely take away from the encounter.

In Multidimensional Audience Analysis for Dynamic Information, Albers (2003) notes that “current methods [of audience analysis] are good at defining what data to collect, but are weak at approaches to analyzing and interpreting that collected data” (pp. 264-265). He describes most techniques as effective, but lacking because they leave out the important element of helping the writer determine relationships among answers. Albers suggests that “the difficulty of both collecting the data and performing that analysis prevents many writers from using an audience analysis beyond a superficial level,” and notes that a multidimensional approach to audience analysis that accounts for an audience’s needs and expectations in relation to levels of knowledge, detail, and cognitive abilities (p. 266) could be more effective. Dimensions operate independently, so based on audience analysis a writer may need to structure information to, for example, account for an audience’s low knowledge about a subject while considering their high cognitive abilities. Albers’s presentation, in many ways an updated and expanded presentation of Hart’s (1996) reconsideration of the “five W’s,” (“who?,” “what?,” “when?,” “where?,” and “why?,” as a path toward user-centered design) suggests user-centered design of information, and also lends mobility to information post-design. After analysis, information is structured to enable readers to creatively utilize information as needed. The dimensionality allows for more complex views of audience than many prior methods.

In terms of dimensionality, audience can be considered on many different levels. Albers notes the value of considering “three distinct dimensions […]: knowledge level, detail level, and cognitive abilities.” He notes that “depending on the situation, other dimensions may also come into play, with social or cultural factors being a common one” (2003, p. 266). Similarly, Turns and Wagner (2004) note that audience can be considered in relation to:

- Role (of user)
- Goals (what a user wants/needs to accomplish)
- Knowledge (what a user brings to the table)
- Human factors (physical/cognitive limitations)
- Circumstances of use (environmental factors, including technological limitations)
- Culture (beliefs, language, traditions, and values—see, for example, Hoft, 1999, p. 69, p. 72)

In her presentation on Key Attribute Audience Modeling at the 2010 Conference on College Composition and Communication, Karen Schriver described a three-dimensional model that incorporated audience expertise, motivation, and anxiety. She suggested that audience-modeling tools should limit their considerations to just three attributes and argued that it is difficult for an information designer to hold more than three or four audience aspects in ready memory at any given time.

Multidimensional methods of audience analysis are wonderfully complex methods of gaining an understanding of audience—they allow technical communicators to comprehend audience needs and expectations, which potentially facilitate highly effective communication—however, the same complexity that makes them so effective also puts them at a disadvantage. An author working with a strict timeline, under a strict budget, or without the means to collect or interpret that level of data cannot fully use these techniques.

The Deep Audience Analysis method I propose here acknowledges the limits of human cognition by keeping to a profile which includes only one overarching category, three commonplace elements to invoke, and a favored mode of communication. It strives to account for the myriad approaches to audience analysis which the aforementioned authors—and more—have outlined. In doing so, I propose a method that is designed to be both time and cost effective while maximizing actionable content.
Deep Audience Analysis: A Brief Overview

The Deep Audience Analysis instrument I propose (Appendix 1) includes an information sheet, interview protocol, coding worksheet, classification worksheet, and a glossary accompanied by descriptive appendices. It is designed to provide an end-classification audience profile which an information designer may use as a heuristic when constructing audience-specific environment-related communication.

The package begins with an explanatory sheet which offers context for the systematic audience analysis process, which is as follows:

1. Conduct and transcribe interview. See “General Interview Protocol” for steps.
2. Code and mark up interview transcript. See “Coding Process” for steps.
3. Complete worksheets A and B based on transcription coding and markup.
4. Assign a Final Profile based on your findings.
5. Use your final profile to shape, or re-shape, your messaging to emphasize elements indicated as positive (+) and avoid elements indicated as negative (-).

Users are guided through a thirteen-point interview—intended to be conducted with members of the target audience population—then provided information on how to effectively transcribe the interview. Following transcription, users are instructed to code the transcript, and provided coding guidance in the form of explanations of commonplaces and sub-topics, suggestions on what to look for when coding, and examples showing marking and color-coding techniques for marking up the transcript. Users are then instructed on how to fill out two worksheets based on their coding findings. These worksheets lead the user to the final profile sheets, and instructions and examples are provided to help them fill out these sheets. The Deep Audience Analysis coding package concludes with two glossaries to help users more fully understand the worksheets and process.

This normative, systematic analysis process offers an analysis method which, while requiring some practice, results in replicable, reliable, audience profiles without the need for extensive training outside of the coding system, or training in statistical analysis or software packages. The process yields an overarching audience profile designed for direct application. One of the benefits to the method I propose is that it not only results in information about the audience, but directs the author toward potential uses of that information.

Justifications for the Deep Audience Analysis Method

In 1982, Douglas Park argued:

To learn how to systematically analyze audience in discourse, […] it seems best to avoid the metaphor, to replace the question, ‘who is the audience?’ with a set of more precise questions as to how the piece in question establishes or possesses the contexts that make it meaningful for readers. (p. 252)

The Deep Audience Analysis method (DAA)—“deep,” because of the levels of specificity resulting from the end-product of analysis—adds to methods of analysis designed to establish meaningful context by encouraging a writer to engage with his or her intended audience and ask how they perceive the environment-related information that shapes—and is shaped by—their worldviews. In doing so, DAA helps communicators more effectively design information for their audiences.

The method proposed here falls largely into the intuition- and value-driven approaches, and eschews most demographic variables in favor of a social-contextual approach that ultimately establishes the environmental commonplaces (see Ross, 2013, 2012, 2008) which motivate a reader to action. An approach fosters audience awareness through analysis (see Albery, 1997; Caricato, 2000), thereby addressing Hovde’s (2000) concerns that technical communicators lack such awareness. The focused nature of DAA means that information designers wanting to acquire more information about audiences for environment-related information production can follow the process as given without having to address the “where do we begin” aspects of audience analysis.

The few demographic variables collected through DAA interviews are collected and coded in such a way as to address Black’s and Long’s (1989, 1990, respectively)
Deep Audience Analysis

concerns about stereotyping and Lippincott’s (2004) concerns about age-related variables. Information coded in the DAA process does not yield a profile based on a person’s physique or claimed identity, but rather on the words and phrases they use and the patterns that evolve as they respond to structured interview questions. The approach considers Dragga and Gong’s (1989) concern about overwhelming amounts of data, and Warren’s demographic, organizational, and psychological variables (1993) through directed, organized, context-specific data collection and analysis. In addition, DAA acknowledges cognitive-based approaches by asking writers to engage with members of the potential audience in order to document audience expectations for environment-related communication.

Development of the Deep Audience Analysis Instrument

I developed the interview, coding sheet, instructions for completing the process, and glossary that make up the DAA instrument from existing data, and refined the instrument through both participatory design and usability testing. All aspects of this study were conducted in full compliance with the guidelines established by the institutional review board (IRB) for human subject research at the institutions where this research and writing took place.

During the summer of 2007, I collected 261 three- to five-minute interviews with visitors to, and employees of, the Glen Canyon and Hoover dams. The data from which the coding package initially derives came from the transcription and coding of 125 interviews with American citizens collected at the Glen Canyon Dam in May of 2007. The package was later usability tested on five transcripts from the Hoover Dam data, also collected in May of 2007, and two transcripts from interviews with foreign visitors to the Glen Canyon Dam not included in the original data.

Each interview was conducted according to the protocol in Appendix 2, which was designed to answer the research question “what are commonplaces of environmental rhetoric?” Briefly put, a commonplace is a word or phrase which brings an audience to a place of shared understanding through “applicable in common” (Aristotle, 2007, p. 45) elements from which a rhetor may develop argument (Miller, 2000). The interview protocol was developed through testing with graduate students and faculty at a large, research-oriented institution, and further refined through field testing. Data were coded using a grounded theory approach (Creswell, 2003; Glaser & Strauss, 1967; Lewis & Whitely, 1992; Richards, 2006) and using NVivo 8 as a data-management tool.

Coding, as described by Creswell, who cites Rossman and Rallis (1998, p. 171), is:

The process of organizing […] material into “chunks” before bringing meaning to those “chunks.” It involves taking text data or pictures, segmenting sentences (or paragraphs) or images into categories, and labeling those categories with a term, often a term based in the actual language of the participant (called an in vivo term). (p. 192)


Development and Usability Testing of Coding Worksheet

I developed, tested, and revised the Deep Audience Analysis coding package using participatory design (for example, Spinuzzi, 2005), which included co-interpretaion of design by designer-researchers (p. 164) and testing for inter-rater reliability. Usability testing of the DAA Coding Package was designed using a structured task, participant observation, think-aloud protocol, and post-task questionnaire (for example, Barnum, 2011). Three 20-25 year-old females, two of whom had experience designing information for non-profit organizations, and so required little explanation toward the value of understanding audience needs and expectations when designing informational brochures, flyers, posters, and so forth, tested the coding package.
All three were Master’s-level students in the English department at the university where I developed the tool. I further refined the instrument through consultation with technical and professional communication specialists in the same department.

The first step in the development of a financially viable, readily accessible coding package was moving coding from NVivo 8 to a paper-based worksheet with an eye toward transparency and accessibility. To refine this worksheet for the project at hand, I first created a table of commonplace categories and subcategories as previously documented elsewhere (Ross, 2013, 2012, 2008). This table was then refined to account for the “shelf life” of commonplaces: because commonplaces are representative of popular discourse at particular places and times (Killingsworth, 2005) they may shift with changing aspects of popular culture. Thus, commonplaces specific to a particular place and time, such one initially described as “Al Gore,” were revised (in this case to “influential persons”) in order to account for the certainty that new identifiers (for example, Leonardo DiCaprio or Barack Obama), will become topics of common conversation with regard to environmental communication.

For the first version of the package, two coders marked and coded four transcripts. The coders compared their results and discussed discrepancies, resolving to agree, disagree, or agree to change topic/sub-topic descriptions. Following these discussions, additions of affective attitude (positive, negative, or ambivalent) were added, commonplace descriptions were edited, and Worksheet B (Information Acquisition and Audience Classification) was extensively refined.

After the initial participatory design process, two more transcripts were coded with the same imperatives in order to test changes to the instrument. The average end-percent agreement for these six total coding instances was 95.78% agreement (Table 1). The end-classification scheme in these cases was unanimous (100% agreement), though how the coders documented results was not, resulting in a restructuring of the instructions sections on Worksheet B in order to clarify end-presentation of results.

This process of participatory design and usability testing resulted in a coding package that appeared to be usable by an audience largely unfamiliar with both coding and environment-related rhetoric, though minor changes in layout were suggested. After refining the appearance of the coding package for increased ease of use, usability testing with a different tester began.

### Table 1. Transcript Coding and Comparison of Versions One and Two of Coding Worksheet

<table>
<thead>
<tr>
<th>Case #</th>
<th>Total coding instances</th>
<th>Coding agreement†</th>
<th>Coding disagreement‡</th>
<th>Agreement to change•</th>
<th>Initial agreement</th>
<th>Total end-percent agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>6</td>
<td>0</td>
<td>1*</td>
<td>85.71</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>10</td>
<td>0</td>
<td>5*</td>
<td>67</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
<td>12</td>
<td>1</td>
<td>4*</td>
<td>70.58</td>
<td>94.12</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
<td>14</td>
<td>5</td>
<td>3</td>
<td>73.68</td>
<td>89.47</td>
</tr>
<tr>
<td>5+</td>
<td>20</td>
<td>12</td>
<td>0</td>
<td>8</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>6+</td>
<td>11</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>54.5</td>
<td>90.9</td>
</tr>
</tbody>
</table>

† Coders initially coded the same lines the same way  
‡ Coders initially coded the same lines differently and did not agree to change  
• Coders initially coded the same lines differently, but agreed to change to a different classification, bringing coding into agreement  
* Category changes here are from initially un-coded lines or phrases, not from disagreement  
+ First use of version 2.0 of coding sheet.
admission, had no previous experience with coding, and only limited experience with the environment-related language used in the coding package.

**Results of Usability Test**

The goal of DAA is to develop an overall profile of an interview respondent which categorizes their interest level in environmentalism, then indicates the commonplaces which the respondent would likely most positively and negatively respond to in communication, followed by an assessment of their desired mode of communication.

The second tester and I had 100% agreement on the end-classification scheme and top two commonplaces. There was no agreement on the last commonplace, but it should be noted that the third commonplace had to be assessed from a series of commonplaces mentioned only one time each, or twice over the course of a single phrase. This testing instance was judged to be a successful test in that the coder successfully navigated the package and achieved a viable and useful result.

While the second tester successfully navigated the package, she expressed general confusion at many of the words and phrases and took roughly twice as long as expected (46 minutes and 31 seconds to code a 77 line transcript). While this time was largely spent reading through the transcript and coding package multiple times, her thoughts, and a post-test questionnaire (Appendix 3), informed several changes:

- The initial overview was expanded
- A section describing effective coding was added
- Examples were added
- The sub-topics glossary was added
- Explanations of transcription practices were added
- Language throughout the document was refined

Following revisions, the second tester and I each coded two more transcripts using the new version of the coding package. She noted that the additions and changes to the coding package facilitated an understanding of both the instructions and commonplace definitions. Interrater reliability on the overall category for the two new transcripts was 100% on the first transcript as written, and within one deviation on the second (she chose “casually interested,” I chose “interested”). Discussion yielded agreement on “interested.” We shared two of three commonplaces. Examination of coding and notations revealed that more commonplaces and subcategory agreements were shared, but inconsistencies in describing the final profiles led to initial confusion. We both agreed that the respondents largely obtained their environment-related information from DVD’s and broadcast media.

A third round of usability-testing was performed with a third tester using the same transcripts as before to allow comparison, and her answers and experiences were compared to our previous results. On the first transcript she answered within one deviation on the subjective overall characterization scale (choosing “casually interested,” where the previous tester and I had chosen “interested”), and chose the same commonplaces to invoke as tester two (100% agreement), though she and I had only one in common (53% agreement). On the second transcript all agreed on the overall category of “interested,” (100%) and had 1 of 3 commonplaces (33%, “experience”) in common. The two new testers shared two commonplaces in common (67%, “experience” and “influential” people), though disagreed on how the respondent felt toward “balance.” Tester three also noted “video” as a preferred mode of communication for the first transcript and “documentaries” for the second, both of which were in keeping with the previous tester’s (and my own) results.

The results obtained through testing suggest that the DAA instrument is both valid and reliable, but training with the DAA instrument would prove beneficial, and triangulation with multiple coders is optimal. Testing regularly yields a consistent overall environmental characterization and at least one, if not more, shared commonplaces. The medium through which the respondents accessed environment-related information came through clearly. Though it is difficult to offer quantitative assessment on the similarities of the commonplaces chosen, examination shows that they seem similar: for the first transcript, for example, I selected the respondent as behaving positively toward proof, pragmatism, and influential persons; tester two rated them as positive toward proof, experience, and human achievements; and tester three also rated them as positive toward proof, experience, and human achievement. Discussion suggested that while I viewed “influential persons” as being highly specific (using names from media, for example), the two new testers...
read “human achievement” as doing similar things in the transcript. Our analyses, then, would yield a usable outcome with the same end-intent: we might create a message which draws upon human resourcefulness (though I would add celebrity to the mix). It’s notable, however, that we are all not choosing commonplaces which I would view as characteristically unrelated: that is, action, religion, or scene.

In every testing instance with the last two testers, discussion of results led to 100% agreement. Discussion with tester three offered insight into potential confusion of results or lack of willingness to commit to a single answer—she felt that it would not be at all possible to even achieve a common perception of an overarching classification, much less agreement on any commonplaces. When she saw how her results compared to mine and the other testers, however, she immediately noted that she would be able to proceed through the process with more confidence. Her concern is well stated, which leads me to believe that DAA as presented is a viable tool, but training and norming with others would lead to more effective use in the workplace.

**Conclusions**

Deep Audience Analysis is ultimately an audience analysis tool grounded deeply within the theories and approaches that comprise the study of technical communication. The approach is informed by work in other fields, including Kassing, Johnson, Kloeber, and Wentzel’s (2010) Environmental Communication Scale; Cordano, Welcomer, and Scherer’s (2003) work on environmental beliefs and behavior; and Pelletier, Tuson, Green-Demers, Noels, and Beaton’s (1998) work on motive-based environmental action. These tools, which enable communicators to quantitatively assess aspects of environmental communication, concern, and motivation, are important instruments for generating knowledge. They are largely statistics-based packages, however, designed for specialists collecting longitudinal, trend-based data. Where DAA differs greatly is in its qualitative, practical approach—it offers an overarching profile of environmental predisposition designed for direct application, and does not require statistical analysis. DAA thus leans more heavily toward a tool for assessing audience than environmentalism itself.

DAA generates a profile based on representative audience members’ underlying rhetorical predispositions (their attitudes toward extremism, celebrity, etc.) and which rhetorical elements they might respond to in order to create a writing heuristic. Because of the heuristic nature of the instrument, small sample sizes should still allow for useful feedback. I view this tool as useful for information designers, and hope that DAA, when placed in concert with existing measurement strategies, can fill in additional pieces of the complex social puzzle with which we all struggle.

Input from professionals in both technical communication and composition and rhetoric also suggests numerous alternative uses to DAA—with minor restructuring to the interview questions the tool could be used by numerous non-environment related nonprofits, such as breast-cancer awareness groups, to determine their target audience’s predispositions toward both the cause and the likelihood of their response toward overarching commonplace categories (for example, action, balance, common sense, experience, and so forth). The interview itself would need only minor restructuring. Notably, question four sets the tone for all that follows. Questions five, seven, and nine would then need to be reworded to match that tone. For example, rewording question four from “when I say the word ‘environmental,’ what is the first thing that comes to mind?,” to “when I say the words, ‘breast cancer,’” or, “when I say the words, ‘medical research,’” or any number of other possible permutations, then restructuring the following questions (replacing “environmental issues” in five, reframing seven to ask about action in relation to the topic, and replacing “environmental” in nine), could result in usable data.

In terms of coding data obtained from a modified interview set, I suspect the commonplaces themselves would still prove viable, as would many of the subtopics. Some sub-topics, of course, such as the “Pollution” sub-topic, under the “Action” commonplace, or the “Being in Nature” sub-topic, under the “Experience” commonplace, would likely no longer prove applicable, should the overarching theme of the interview change. An organization could choose to either ignore those isolated elements, or conduct a series of interviews, code the transcripts, and ultimately discover sub-topics relevant to their particular interests.
Deep Audience Analysis

Although testing to date demonstrates the promise of DAA, more research is needed regarding the application of this system. This should include experimentation using control and test groups to further establish effectiveness. The coding package needs to be used in the field by both academic and nonacademic audiences because these audiences will have different approaches, exigencies for use, and difficulties during use. As users assess DAA’s reception—the “meeting between a medium and its audience” (Jensen, 1987, p. 24)—it should be adapted for local needs and expectations. DAA will likely be most useful if it is refined using participatory design and usability testing for specific groups or organizations.

One of the problems with an audience analysis system of this type is that the coders must share an understanding of both the coding and interpretation processes, and these processes must be in accord with the research conducted on how audiences discuss their environment-related values and associated topics. While this coding package appears to work at the academic level when tested by researchers with varying degrees of familiarity with the research and coding-in-general, for it to be of full value to information designers, it is my opinion that training and testing, consisting of coding a series of transcripts with pre-established values, then assessing end-agreement and training for refined coding skills and full understanding of the associated commonplaces, would offer a more robust and valuable skill set for this area of environment-related audience analysis. As shown in Table 1, when researchers first begin to use the coding package, there are more likely to be instances of missed coding opportunities or misjudgment of similar phrases than areas of outright inflexibility or disagreement. Two options then exist for organizations wishing to use this tool “out of the box”: either have two or more members conduct the analysis and compare results, or have a single member train and become intimately familiar with the system prior to use.

In the end, it is my hope that both academic and nonacademic information designers find use in the Deep Audience Analysis system, as it offers a response to Martin and Sander’s vital argument:

> In [a climate where citizens affected by environment related decisions come from diverse cultural, financial, and ethnic backgrounds] good decisions regarding public policy issues almost certainly require careful negotiation of the meaning of technical data, with full awareness of the interests of all the parties, including the technical experts and the communicators who represent their expertise to the public. Technical communicators working in this dangerous climate, this nevertheless commonplace climate, need to practice a careful and extended audience analysis that on the surface may look like the traditional practice of identifying potential readers and their concerns, but which is, in fact, more pervasive and fundamental. Audience analysis of the sort we describe here is an inherent part of the writing process that leads to the production of texts that evince an ethical rhetoric, a rhetoric that is as willing to change the self as it is to influence the other. (p. 148)

I propose the Deep Audience Analysis instrument for practitioners with a need to understand their audience’s underlying expectations and motivations so that they may more effectively communicate with them. This project is motivated by the belief that more useful information can be gained from representative members of an audience through human interaction than through impersonal surveys. By talking with people, probing for reasoning behind initial answers, questioning them about their hesitancy to answer questions, or why they appear angry at a thought, or their unintentional laughter, we may uncover more true beliefs and motivations than by attempting to draw inferences of imagined audiences from dehumanized data. This Deep Audience Analysis tool is one proposed method to reduce the complexity of interviews and coding by providing a ready method for interview analysis and comparison, and it is accompanied by glossaries and indexes to help reduce the complexity of the process. The method proposed here should serve as a time- and cost-effective strategy for organizations wishing a deeper understanding of their audience.
Acknowledgments

I thank the numerous agencies that allowed me to carry out this research, especially the Bureau of Reclamation and the National Park Service. Specifically, thanks to the many people at the Carl Hayden Visitor Center, without whom this work would have been impossible. Thanks as well to my colleagues for their feedback, and my research assistants Katie Mullinax, Kristina Litchford, and Sarah Stude, who contributed many long hours of work to this project. Special thanks to Jen Ross for all of her help and support.

References


Deep Audience Analysis


**About the Author**

Derek G. Ross is an assistant professor in the Master of Technical and Professional Communication Program (MTPC) at Auburn University, where he teaches courses in technical communication, document design, environmental rhetoric, and policy writing. His research interests include perceptions of environment-related rhetoric, document design, and audience analysis. His work has appeared in Written Communication, Social Epistemology, Present Tense, and the Journal of Technical Writing and Communication, among others. He is the Ethics Editor/Columnist for Intercom: The Magazine of the Society for Technical Communication. Contact: derek. ross@auburn.edu.

Manuscript received 28 March 2012; revised 28 March 2013; accepted 5 April 2013.
Deep Audience Analysis

Appendix 1: Deep Audience Analysis (DAA) Coding Package

<table>
<thead>
<tr>
<th>Coder</th>
<th>Case #</th>
</tr>
</thead>
</table>

This tool codes for environmental commonplaces, the stories-within-a-story which motivate a reader to action. It is designed to be used to assess an audience’s underlying predispositions in terms of what sources of information they privilege, what rhetorical elements motivate them to action, and what rhetorical elements positively or negatively impact their perceptions of the environment.

**Purpose**

The purpose of this tool is to provide an end-classification scheme of representative members of a desired target population in relation to their willingness to listen to/accept environment-related messaging and argumentation. After using this coding tool, your organization should have a deeper understanding of your target audience, and will be able to structure your environment-related communication to achieve maximum desired impact by:

- Utilizing or avoiding commonplace narratives indicated by the sample population
- Structuring the overall thematic structure of your communication towards levels of pro/anti-environmentalism based on the end-classification scheme

**Process**

1. Conduct and transcribe interview. See “General Interview Protocol” for steps.
2. Code and mark up interview transcript. See “Coding Process” for steps.
3. Complete worksheets A and B based on transcription coding and markup.
4. Assign a Final Profile based on your findings.
5. Use your final profile to shape, or re-shape, your messaging to emphasize elements indicated as positive (+) and avoid elements indicated as negative (-).

**Use of End Classification Scheme**

The end-product of this interview and coding process is a classification scheme that rates the speaker on a scale of their overall interest in, and attitude toward, environmentalism, as well as the top three commonplaces (common narratives) to which they will likely strongly respond in environment-related communication, and subtopics associated with those commonplaces. By being aware of your audience’s attitudes towards environmentalism in general, and the narrative elements to which they will most likely positively or negatively respond, you should be able to shape your environment-related communication to account for your audience’s attitudes and perceptions, thereby increasing the overall potential effectiveness of your messaging.

**General Interview Protocol**

This interview protocol is designed to lead an audience into a brief discussion of their perceptions of environment-related messaging, argumentation, and rhetoric. The interview is designed to be conducted rapidly (approximately 5 minutes), and can be easily adapted to work with couples or groups of people. Make sure you have the appropriate permissions for your institute to record human subjects, and record the interviews for later transcription.

The suggested probes (listed as heading a, b, etc.) may help to clarify ambiguous answers, or further allow respondent(s) to work through issue(s) they are attempting to articulate. When at all possible, the interviewer should facilitate the interview through verbal and non-verbal cues which do not cast aspersion or hint at judgment. Avoid leading the respondent(s) to a desired conclusion.

**Interview**

1. Where are you from?
2. What brought you here today?
3. How did you hear about (place)? (optional-use only when interviewing at a tourist-based location)
4. Now, just to change up a bit, when I say the word “environmental,” what is the first thing that comes to mind?
   a. Why?
5. Where do you stand on environmental issues?
6. Based on that, where do you feel that you get your values from?
7. Do you think of yourself as an “environmentalist,” or “environmentally active?”
8. Could you explain why or why not?
9. Can you think of any environmental arguments that you have heard that are particularly effective?
   a. Where did you hear this argument?
   b. What would make the argument more effective?
10. Based on what you were just saying, what kind of arguments would be most effective, at least for you personally?”
   a. How would this work?
   b. What would it take to convince you of something that you did not already believe?
11. Looking out over all of this, how would you describe this to someone else? (optional—use only when interviewing at a place where the respondent would have to engage with/describe the environment)
12. May I ask how old you are?
13. If you don't mind me asking, can you tell me what level of education you have?

Transcription
Transcribe the interview, making sure to use line-numbering. Work slowly, and pay particular attention to odd phrasing and difficult-to-understand language—these may be important elements. You may use any transcription software, such as NCH Express Scribe (http://www.nch.com.au/scribe/index.html). For a list of transcription in-line notations, see the Transcription Notation section.

Coding Process
Code the transcript by indicating on the right-hand side of the transcript which commonplace (see Worksheet A and Glossary 1) is addressed in any given individual statement. Mark the section in both the associated color (see Color Coding Sheet for color coding using a twelve-pack of readily-available Rose Art brand colored pencils) and by using the commonplace abbreviation. If a particular subtopic is apparent (see Glossary 2), note that as well. If, for example, your audience mentions that they try to conserve water by keeping showers to only 5

<table>
<thead>
<tr>
<th>Transcription Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bold and Underlined</strong></td>
</tr>
<tr>
<td><strong>Bold</strong></td>
</tr>
<tr>
<td>/</td>
</tr>
<tr>
<td>.</td>
</tr>
<tr>
<td>(#)</td>
</tr>
<tr>
<td>(()</td>
</tr>
<tr>
<td>[]</td>
</tr>
</tbody>
</table>

Commonplaces
The commonplaces indicated in Worksheet A are the overarching narrative elements which, for your audience, tell a story-within-a-story. The commonplace “balance,” for example, implies that arguments and counterarguments are equal and that information is presented fairly and objectively. Invoked, “balance” asks an audience to weigh information objectively, even if the informational components are not of equal value. In a transcript, balance might be indicated by a respondent saying, “Balance is a good thing, you know, you got people that destroy the environment and just trash the place, you got people that overprotect. I think that a better balance is a better way to go.” Note that the word used to indicate the commonplace, “Balance” in this case, may not necessarily appear in a response, though the meaning should come through. A respondent stating that they are “obviously in favor of, you know, having a clean environment, recognizing the practicalities of modern life, that we're not going to just walk everywhere, and give up automobiles, airplanes, everything else” is an example of how this might happen. Note also that this phrase might be dually coded as “Pragmatism.” See Glossary 1 for definitions of commonplaces.
Deep Audience Analysis

Sub-Topics
The listed sub-topics are designed to help you determine which commonplace is most relevant in the transcript you are reading. The sub-topic “Extremism vs. Hyperconservatism,” which is a sub-topic of the “Balance” commonplace, for example, is apparent in the first of the two examples listed above, when the respondent mentions “people that [...] just trash the place [and] people that overprotect.” Subtopics should serve as both guides for commonplace recognition, and as ways for you to further refine the eventual presentation of your information. Note that some commonplaces, such as “Pragmatism” do not currently have listed subtopics. You may fill in unique occurrences in the “other” line. See Glossary 2 for brief definitions of commonplace sub-topics.

What to Look for When Coding
In coding, you want to look for interesting or unique statements that represent your respondent’s attitudes and beliefs about the topic. You may do this by either moving through the code sheet line-by-line and looking for statements that represent each commonplace and/or sub-topic, or familiarize yourself with the coding sheet (Worksheet A), and read through the transcript multiple times, marking statements for their relation to the commonplaces and sub-topics. This second way is more effective, but requires some familiarity with the coding process. Note that not all commonplaces and sub-topics will likely appear in any single transcript. If no statement corresponds to a commonplace or sub-topic, simply leave that section of the worksheet blank.

If you believe a statement to be of interest, but are not sure of how to code it, simply mark the statement and come back to it, after finishing the rest of the transcript, for later review.

Marking and Color-Coding
The document should be marked-up in a way that makes sense to you and can easily be translated to Worksheets A and B. In this example the coder has used her colored pencils to underline statements in their associated colors (Orange for “Experience,” Red for “Extremism,” and Blue for “Balance”), also noting on the right-hand side of the page what commonplace was meant by the underlining.

Coding Example 1

Indicating which subcategory helped you identify the commonplace at play may also help with your end-classification of the speaker. In the following example, the coder does not underline, but instead brackets the content and notes which sub-topic (Growing Up) led him to the overall commonplace (Experience).

Coding Example 2

However you choose to mark-up your transcript, make sure that both you and your colleagues can interpret your markings. This will allow you to revisit your data should you wish to confirm your findings against the original transcript at any given time.

Filling out the Final Profile Sheet: Information Acquisition and Audience Classification
Use the information recorded on Worksheet A to answer the questions on Worksheet B. These answers will then allow you fill out the Final Profile sheet.

Most question responses are self-explanatory. The following is a clarification for question 3, worksheet B.

For question three, listing the commonplaces, count the number of times you listed unique line number sections on Worksheet A.

In the following example, the coder has noted six unique instances of “Action:” one positive reference to the subtopic “Going Green,” two negative references regarding “Pollution,” and three positive references regarding “Recycling.”

In the following example, the coder has noted two unique instances of “Nurture” (both positive references...
to an “Action Mindset”), and one negative reference to “Pragmatism.”

The final profile you list will ask you to write the profile out in longhand so that it is readily understood by other members of your organization, listing both the overall characterization and top three commonplaces, along with their attitude towards the commonplace. A complete profile might appear as “Passionate Environmentalist: negative towards extremism, positive towards balance, positive towards influential persons.” The subtopics will be used to inform your information design. You will use positive (+) subtopic references in your top commonplaces, and avoid negative (-) references.

Color Coding Sheet
The following colors are available in a twelve-pack of Rose Art brand colored pencils. If you wish to use other colors or brands, please make sure you record the colors to be associated with each commonplace before beginning the coding process.

<table>
<thead>
<tr>
<th>Commonplace</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Yellow green</td>
</tr>
<tr>
<td>Balance</td>
<td>Royal Blue</td>
</tr>
<tr>
<td>Common Sense</td>
<td>Sky Blue</td>
</tr>
<tr>
<td>Experience</td>
<td>Red Orange</td>
</tr>
<tr>
<td>Extremism</td>
<td>Red</td>
</tr>
<tr>
<td>Human Achievements</td>
<td>Orchid</td>
</tr>
<tr>
<td>Influential Persons</td>
<td>Pink</td>
</tr>
<tr>
<td>Nurture</td>
<td>Black</td>
</tr>
<tr>
<td>Pragmatism</td>
<td>Brown</td>
</tr>
<tr>
<td>Proof</td>
<td>Blueberry</td>
</tr>
<tr>
<td>Religion</td>
<td>Yellow</td>
</tr>
<tr>
<td>Scene</td>
<td>Green</td>
</tr>
</tbody>
</table>

Worksheet (A): Summary of Commonplace Use

<table>
<thead>
<tr>
<th>Commonplace</th>
<th>Color</th>
<th>Positive, Negative, or Ambivalent Towards Commonplace?</th>
<th>Sub-Topic</th>
<th>Line Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P (+)</td>
<td>N (-)</td>
<td>A (-)</td>
</tr>
<tr>
<td>1. Action (ACT)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>2. Balance (B)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>
## Deep Audience Analysis

### Worksheet (A): Summary of Commonplace Use (Continued)

<table>
<thead>
<tr>
<th>Commonplace</th>
<th>Color</th>
<th>Positive, Negative, or Ambivalent Towards Commonplace?</th>
<th>Sub-Topic</th>
<th>Line Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P (+)</td>
<td>N (-)</td>
<td>A (-)</td>
</tr>
<tr>
<td>3. Common Sense (CS)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>4. Experience (EXP)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>5. Extremism (EXT)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>6. Human Achievements (HA)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>7. Influential Persons (IP)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>8. Nurture (NUR)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>9. Pragmatism (PRA)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>10. Proof (PRO)</td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>
Worksheet (A): Summary of Commonplace Use (Continued)

<table>
<thead>
<tr>
<th>Commonplace</th>
<th>P (+)</th>
<th>N (-)</th>
<th>A (-)</th>
<th>Sub-Topic</th>
<th>Line Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Religion (R)</td>
<td>P</td>
<td>N</td>
<td>A</td>
<td>Stewardship (Ste)</td>
<td></td>
</tr>
<tr>
<td>12. Scene (S)</td>
<td>P</td>
<td>N</td>
<td>A</td>
<td>Other (describe)</td>
<td></td>
</tr>
</tbody>
</table>

Worksheet (B): Information Acquisition and Audience Classification

1. Sources of information mentioned in transcript? (Newspaper, Internet, books, etc.)
2. Was there an overwhelming theme (recycling, reference to a particular movie, etc.) in this transcript?
3. Commonplaces
   List the commonplace (not the sub-topic) indicated by transcript with at least 2 occurrences (count the number of times you listed unique line number sections on the worksheet—lines 21-23, 44, and 56-62 would count as three occurrences) and rate your impression of their feelings towards that commonplace as positive (+), negative (-), or ambivalent (-). Use the subtopics to help you count the number of references to the overarching commonplace. Place categories in order of most references to least. For example, if the respondent was strongly anti-extremist (5 mentions), likes balance (4 mentions), mentions influential people positively (3 mentions), and refers to pragmatism generally (twice), list as ~EXT +B +IP -Pra.

4. Overall Environmental Categorization
   Based on your analysis of the transcript, how would you generally characterize the speaker? Rate the speaker on the following scale in relation to their overall feelings towards the natural world/environment and associated messages with 5 being extremely passionate/vehement about their position, and 1 being ambivalent. Rate the speaker only as 0 if they truly show no leanings toward either environmentalist or anti-environmentalist category. An “ambivalent anti-environmentalist,” for example, would be the “weakest” version of anti-environmentalist, someone who doesn’t believe in or take part in any environmental-positive actions but registers only mild disagreement overall. A vehement environmentalist, on the other hand, is a bonafide activist/campaigner, and will elucidate very strong positive feelings toward the environment as well as talk about their own positive actions.

Final Profile Coder: Case #:

List the overarching category from Worksheet B, question 4, followed by the three commonplaces with the most counted occurrences. Write the profile out.
Deep Audience Analysis

in longhand so that it is readily understood by other members of your organization. A complete profile might appear as “Passionate Environmentalist: negative towards extremism, positive towards balance, positive towards influential persons.”

Overall Profile

List the subtopics (from Worksheet A) from the top three commonplaces to use (marked as positive (+)), and the subtopics from the top three commonplaces to avoid (marked as negative (-)).

Subtopics to use (+):

Subtopics to avoid (-):

When determining the best method of conveying information to your intended audience, refer to Question 1 on Worksheet B to determine the modes of communication favored by your audience.

Favored mode of communication?

You have completed the Deep Audience Analysis Profile sheet. Use the information on this page to help you design information for your audience based on their preferred modes of communication, gauged measure of response to environmentalism, and commonplaces and subtopics to invoke or avoid.

Glossary 1: Commonplaces and Implications for Use

Action: Implies that environment-related actions (such as recycling) are accessible because of either prevalence or desirability. Invoked, “action” can serve as a gateway (as in the case of recycling, where ease-of-act promotes greater environment-related action), or a call to greater action (conserving water is good, conserving water-in-the-world is better).

Balance: Implies that arguments and counterarguments are equal and that information is presented fairly and objectively. Invoked, “balance” asks an audience to weigh information objectively, even if the informational components are not of equal value.

Common Sense: Suggests that environmental actions are a direct result of a logical response to the world. Invoked, “common sense” asks an audience to use their intuition to make the “correct” or “logical” choice.

Experience: Associates environment-related action or perception with personal experiences in natural surroundings or educational venues (such as class work or family). Invoked, “experience” asks an audience to recall similar circumstances which may have occurred in their past.

Extremism: Associates environment-related action with adventuresome, outside-of-normal mindsets or activities. Invoked, “extremism” can poison ideas as non-traditional or irrational, or validate experiences as daring and courageous.

Human Achievements: Associates environment-related action with human resourcefulness, creativity, and power. Invoked, “human achievement” suggests that humans can do anything to which we set our mind.

Influential Persons: Associates environment-related action with a particular person or group. Invoked, “influential persons” is the argument of celebrity—person X says you should do something, so follow their lead. Conversely, this can be used to poison ideas. Person X says something, and because we can’t trust them, you should do the opposite of what they say.

Nurture: Associates environment-related action with spiritualism, caring, and/or a sense of secular stewardship (the non-religiously mandated need
to take care of the world). Invoked, “nurturing” suggests reciprocal caregiving: take care of the world and the world will take care of you.

**Pragmatism:** Associates environment-related action with practical, often fiscal, value systems. The conveyed narrative is one of an awareness of financial responsibility and human need. Invoked, it suggests that, much as in the case of “common sense,” any associated action is necessary for practicality’s sake.

**Proof:** Associates environment-related action with empirically-tested, objective, replicable discovery. Invoked, “proof” suggests that associated information can be trusted, and should be a major component in any related decisionmaking process.

**Religion:** Associates environment-related action with religious mandate. Invoked, “religion” suggests that a particular religion or deity requires specific types of conduct or action.

**Scene:** Environment is described as value-free. Respondents may mention specific objects, such as trees or clouds, but not assign value to these objects. Invoked, “scene” devalues any emotionally-laden issues by constructing the world as full of value-free components.

### Glossary 2. Brief Descriptions of Sub-Topics

#### Action

**Conservation:** Respondent discusses conservation-related activities.

**Destruction/Degradation:** Respondent refers to acts, or the act, of destruction or environmental degradation.

**Going Green:** Respondent uses “green” related language as a performable act.

**Preservation:** Respondent discusses acts, or the act, of preserving.

**Pollution:** Respondent refers to pollution as an action, not a thing.

**Recycling:** Respondent refers to acts, or the act, of recycling.

#### Balance

**Balanced Source Material:** Indicates that respondents believe good information must be presented in multiple formats or be available from more than one source.

**Extremism vs. Hyperconservatism:** Indicates respondents feel that some sort of balance needs to be obtained between conservatives and activists/extremists.

**Natural Balance:** Suggests that Nature has a particular way of being that may be either positively or negatively impacted by human action.

**Need vs. Nature:** Indicates respondents see human needs (quality of life, basic food and shelter, etc.) as balanced against a world empty of human intervention.

**Politics:** Suggests environment-related politics have to be balanced so that no one group gains an upper hand.

**Sides/Sidedness:** Respondents refer to sides of an argument, or the sided nature or a situation.

#### Experience

**Being in Nature:** Indicates that experiencing nature through immersion creates environmental values.

**Education:** Indicates that educational experiences helped to confer values in relation to the environment.

**Family Members:** Suggests that environment-related values are the result of time spent with family.

**Growing Up:** Indicates that life experiences gained as the respondent ages inform environment-related values.

**Job:** Suggests that environment-related values are a result of work experiences.

**Law:** Suggests that environment-related values are the result of legal experiences or incentives.

**Living Places:** Indicates that environmental values are informed by the settings in which respondents have found themselves.
Deep Audience Analysis

**Seeing Something:** Suggests that having seen an environment-related place or issue has affected perception of the environment.

**Travel:** Indicates that movement around the world informs environment-related values.

**Influential Persons**
- **Credentialed:** Respondent refers to people as experts because of their education or credentials.
- **Experiences:** Respondent draws upon time spent with a person as an influencing factor in environment-related activities.
- **Famous/Celebrity:** Respondent refers to a person’s credibility, or lack thereof, because of their celebrity or status.

**Nurture**
- **Action Mindset:** Respondent suggests that they are motivated to take action to take care of the earth, or take part in environment-related activities.

**Belief:** Respondent indicates a strong non-religious belief that they should be or act a certain way in relation to the environment.

**Caring:** Respondent feels that the earth and environs must be cared for.

**Secular Stewardship:** Respondent indicates that it is human duty to take care of the earth, but does not indicate a religious basis for this feeling.

**Spiritualism:** Respondent discusses faith and/or beliefs related to the environment that fall outside of traditional/organized religion.

**Proof**
- **Inartificial:** Indicates respondent values physical evidence as proof.
- **Artificial:** Indicates respondent accepts rhetorical evidence, such as appeals to logic, credibility, and emotion, as proof.

**Religion**
- **Stewardship:** Respondent refers to a religiously-mandated need to somehow take care of the earth.

---

**Appendix 2: Interview Protocol**

**Introduction**

Where are you visiting from?

What brought you out here today?

How did you hear about (dam name/park name)?

Now, just to change up a bit, when I say the word “environmental,” what is the first thing that comes to mind?

Where do you stand on environmental issues?

Based on that, where do you feel that you get your values from?

Do you think of yourself as an “environmentalist,” or “environmentally active”?

Could you explain why or why not?

Can you think of any environmental arguments that you have heard that are particularly effective?

Based on what you were just saying, what kind of arguments would be most effective, at least for you personally?

Looking out over all of this, how would you describe this to someone else?

And, last but not least, do you mind if I ask how old you are?
Appendix 3: Post-task Questionnaire: DAA Coding Package

On a scale of 1-5, with one being very easy and 5 being very difficult, please rate the following statements. Circle your answer.

1. How easy or difficult was it to understand the coding process?
   - 1—very easy
   - 2—somewhat easy
   - 3—neither difficult nor easy
   - 4—somewhat difficult
   - 5—very difficult

2. How easy or difficult was it to understand the overall purpose of the DAA Coding Package?
   - 1—very easy
   - 2—somewhat easy
   - 3—neither difficult nor easy
   - 4—somewhat difficult
   - 5—very difficult

3. How easy or difficult was it to pick out the most recurrent commonplaces in the transcript and record them on the worksheet?
   - 1—very easy
   - 2—somewhat easy
   - 3—neither difficult nor easy
   - 4—somewhat difficult
   - 5—very difficult

4. How easy or difficult was it to determine an overall environmental categorization for the speaker?
   - 1—very easy
   - 2—somewhat easy
   - 3—neither difficult nor easy
   - 4—somewhat difficult
   - 5—very difficult

5. Do you feel you understood the process and its use?
   - Yes
   - No

6. If you answered No to the following question, please explain why.

7. Do you think that the classifications you established would help you classify an audience in order for you to direct environment-related communication to them?
   - Yes
   - No

8. If you answered No to the following question, please explain why.

9. Do you think you would be comfortable using the DAA: CERP Coding Package to collect and code your own data on your own after this limited introduction?
   - Yes
   - No

10. If you answered No to the following question, please explain why.

11. Is there anything you would add to, or remove from the coding package?

Thank you for your time!
Amateur Hour: Credibility Testing for Small Business Web Sites

Heidi L. Everett

Abstract
Purpose: Much has been written about the importance of Web site usability. However, a Web site that is usable in terms of navigation can still have credibility issues that reflect negatively on an organization. As a result, Website credibility assessments have gained popularity, but little research in that area has examined one of the most common forms of Web site communication—that is, small business Web sites that do not pose risk and do not offer e-commerce. This paper begins to address that gap by exploring the relationship between Web visitor expectations and their credibility judgments about a small business based on its Web site.

Method: I conducted research based on principles of Prominence Interpretation Theory of Web credibility. This research included focus groups of likely consumers to explore the relationship between Web visitor expectations and judgments about the small business Web site and credibility judgments about the small business. Data from the focus groups was used to: (1) determine the factors that women use when setting expectations and making credibility judgments about a small business based on their Web experiences, and (2) identify if those factors vary generationally.

Results: The results of the research revealed that likely consumers of the small business did not believe the Web experience projected a credible brand with which they would want to engage. In other words, a Web site that was intended to promote the products and the store was ironically hurting the business by turning away potential customers.

Conclusion: I show how a six-step credibility test (based on Prominence-Interpretation Theory principles) can be used by communications consultants, Web site developers, and small-business owners. Such a test is an effective yet simple approach to gauging Web credibility judgments and making sustainable Web site changes in organizations with limited resources. The ease of this test combined with the time- and cost-effectiveness make it especially useful for small business Web sites, where expertise and resources may be limited.

Keywords: Web site credibility, usability, Prominence-Interpretation Theory, WordPress, Drupal, Wix, open source Web content management systems

Practitioner’s Takeaway
- A Web site that is usable in terms of navigation can still have credibility issues that reflect negatively on an organization.
- A six-step credibility test process (based on Prominence-Interpretation Theory principles) can help determine Web visitor credibility judgments because it doesn’t require sophisticated software, a tremendous investment of time, or expensive research methods.
- Small businesses with limited staffing and resources can use this tool in a cost-effective, efficient manner and successfully yield information for improving a Web site and Web visitor credibility judgments about a small business.
Introduction

Cost-effective, efficient Web site management is essential to most organizations. Much has been written about the importance of Web site usability. However, a Web site that is usable in terms of navigation can still have credibility issues that reflect negatively on an organization.

As a result, Web site credibility has gained popularity over the last decade, but research in this area has been limited to identifying credible authorities of information and Web sites containing inherent risk. Web sites with inherent risk include those that provide medical, legal, or financial information; those that ask for personal information (like www.irs.gov); and those that allow financial transactions (e.g., banking, travel, and e-commerce sites). Little research has examined one of the most common forms of Web site communication—that is, small business Web sites that do not pose risk and do not offer e-commerce. After all, as of 2010, the United States was home to 27.9 million small businesses. A large number of those small businesses may not deal in sensitive data or risk-related subjects, but visitors to their Web sites will still make judgments about credibility when determining if they are willing to donate time or money to a nonprofit organization or to engage with a small business at its bricks and mortar location. The opposite can also be true. Much like poor usability, negative credibility judgments may negatively impact a customer's engagement with a business—and ultimately the businesses' bottom line—especially when you factor in the recent trends in the development of small business Web sites.

Trends Influencing Small Business Web Sites

The credibility of small business Web sites becomes even more of an issue when you consider two developing trends in Web communication. First, many small organizations—such as small businesses or nonprofits—do not have large staffs with dedicated Web site experts. For example, as of 2010, the United States was home to 27.9 million small businesses; of those, 78.5% did not have employees (Small Business Administration, 2012). As a result, small organizations often rely on volunteers or multi-tasking owners and their family members and friends to make up for not having an IT department or Web communications team. In those situations, the organization’s presence on the Web (and their overall credibility) can be stunted by the creation of patchwork systems built to fulfill one person’s perspective (rather than an organizational strategy), built on the expertise of one individual who is only with the organization for a limited time, or built by someone with initiative but little knowledge of effective web communications (Merkel, et. al., 2007; Turnbow, et. al., 2005).

The second trend is the availability of free or low-cost open access Web site programs. Resources such as Drupal, blu domain, Wix and WordPress are attractive to small businesses and non-profits because they provide software that’s easy to use for people inexperienced in html or coding, numerous template options with usable navigation and design, and the ability to go live with a Web site in a matter of hours if an organization chooses to do so. In fact, of the top 10,000 small business Web sites in 2012, 60% were created in WordPress, 20% in Drupal (Wanner, 2012). That means, approximately 8,000 small business Web sites were developed using either WordPress or Drupal. Despite their ease of use, such programs can have negative implications on an organization’s Web presence, since speed and ease of development can overshadow the importance of determining the effectiveness of the end product.

In this paper, I explore the relationship between Web visitor expectations and their credibility judgments about a small business based on the business’s Web site. Further, I show how a six-step credibility test (based on Prominence-Interpretation Theory principles) is a useful tool for gauging Web credibility with web visitors, particularly in small businesses that have limited staff and financial resources. I begin by describing how Web site credibility research is different than Web site usability, but just as important.

Usability Versus Credibility

Before discussing how to conduct Web site credibility research, it’s important to understand how it differs from usability research. According to The International Standards Organization (1998, 9241-11), usability is the “extent to which a product can be used by specified users
Credibility Testing for Small Business Web Sites

Credibility Testing for Small Business Web Sites

Applied Research

Credibility Testing for Small Business Web Sites

Applied Research

to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use.” A central tenet of usability testing, then, is having likely users complete task-based scenarios to gather data about effectiveness, efficiency, and user satisfaction (Barnum, 2011, p. 18). This perspective has made usability important and widely researched in the field of technical communication. In fact, a Google Scholar search of the phrase Web site usability yields more than 70,400 results alone.

Although usability research can lead to important discoveries, technical communication researchers and practitioners can benefit from understanding and employing additional methods of Web site evaluation. One area of research that can be beneficial is Web site credibility. As David Robins and Jason Holmes (2008) explained:

[F]irst impressions are crucial for web page content. Regardless of the quality or credibility of content, a poorly designed or aesthetically unappealing web page will likely produce a negative impression of credibility. In an environment such as the World Wide Web, where there are billions of documents and thousands of pages on a given topic, it is critical to present information in such a way that it does not produce a negative visceral judgment before the viewer even has a chance to engage the content at the cognitive level. People are quick to abandon a site and move on to one of any number of competing options. Lack of perceived credibility is surely one of the reasons for this behavior. (p. 398)

Web site credibility can be defined in a number of specific ways. For example, it can be viewed as: (1) the credibility of the information available on the web and (2) the credibility of an organization presenting the information. Credibility assessments may be impacted by factors such as design features of a Web site, certifications of the information presented, or certifications of the organization presenting the information (Fogg, Soohoo, et. al., 2003; Lazar, Meiselwitz & Feng, 2007). Search engine rankings may also impact credibility assessment (Kammerer & Gerjets, 2012). Moreover, factors like product information, the online shopping experience, and customer support may impact credibility (Fogg, Soohoo, et. al., 2003; Elliot & Surgi Speck, 2005). Perceived amateurism is another factor considered when making credibility judgments (Fogg, et. al., 2001, p. 63). Amateurism has been connected to the size of the Web site, the site domain name, typographical errors, whether the site was hosted by a third party and whether or not the site had been updated. Finally, Miriam Metzger (2008) synthesized an extensive list of factors from existing research that included such details as date stamping, presence of contact information and privacy and security policies, broken links, a user’s prior experience on the Web, and URL (p. 2082). Metzger’s own research notes that user credibility assessments also depend on the user’s motivation and ability to assess.

Although some of these many factors relate to design elements—and design is often the first element Web users interpret—it’s important to note that simply having a visually appealing Web site does not automatically equate to credibility. A Web site can be visually appealing; that is to say its aesthetics as they relate to color choice, font usage, harmony of design, and use of white space can be pleasing to Web site visitors. Visually appealing Web sites can still foster negative credibility judgments about a Web site.

The bottom line is that credibility differs from usability in that it moves beyond the efficiency and satisfaction of a Web site to explore perceptions of credibility by web visitors. In short, it shifts the question from “Is a Web site usable?” to “Is a Web site credible?” In addition, research on Web site credibility extends beyond the Web site to ask the question “Is the organization that is responsible for this Web site credible?” Usability testing alone only answers the first question, which may leave fatal flaws in the Web site execution.

Assessing Credibility

One of the best ways to assess credibility is through Prominence-Interpretation Theory (Fogg, 2002). This theory considers two important factors: (1) a Web site element’s likelihood of being noticed—that is, its prominence—as well as (2) what value or meaning people assign to that element—that is, their interpretation of it. The prominence and interpretation of an element may be influenced by many factors,
including a Web visitor’s motivation for visiting a Web site and the visitor’s prior experience with the Web (Fogg, 2002).

Both Fogg and Metzger have called for research to further understand how user motivation specifically impacts credibility judgments. For example, if a Web visitor is looking for answers to a medical question (for “a loved one who is in dire need”), the Web visitor will have a high level of motivation and spend a considerable more amount of time with a Web site before making a judgment that it is time to move on to another site (Fogg, p. 12, 2003). In contrast, a person searching for a local gift shop or for a local nonprofit organization to donate money to typically will not have a high level of motivation to engage with a Web site. In that sense, credibility may become increasingly important for small businesses if they do not require a high level of Web visitor motivation to visit their Web sites. The bottom line is that first impressions by Web visitors may be quick and detrimental to an organization if prominent elements do not yield an interpretation of credibility.

The good news is that credibility research can be conducted by organizations with little time or money. Prominence-Interpretation Theory is ideal for small businesses in particular because it doesn’t require sophisticated software, a tremendous investment of time, or expensive research methods. Small businesses with limited staffing and resources can implement this tool in a cost-effective, efficient manner and successfully yield useful information for improving a Web site and Web visitor credibility judgments. In fact, Fogg, Soohoo, Danielson, and colleagues (2003), acknowledged that although their sample size of 2,684 participants was quite large, their pilot study results (which consisted of 200 participants) yielded valuable insights into the credibility of Web sites (p. 14); the most valuable data from their research came from the qualitative comments that people made about the Web sites they evaluated as opposed to the quantitative rankings (p. 3).

**Six Steps to Assessing Credibility**

Store managers, business owners, volunteers or staff tasked with building and maintaining a Web site might have clear intentions for their selection of images and text; however, credibility testing can help identify if their Web sites yield a credible brand experience for consumers or a negative credibility judgment that harms the business.

To that end, I have developed a simple six-step process for conducting cost-effective credibility testing, which is guided by the principles of Prominence-Interpretation Theory:

**Step 1.** Identify and recruit focus group participants. Much like usability studies, it is important to recruit current or likely consumers of a business. Interviews may be used in place of focus groups; however, focus groups provide the opportunity to connect with many users in a timely manner (MacNealy, 1999; Morgan, 1988; Stewart & Shamdasani, 1990).

**Step 2.** Determine online experiences and expectations of participants, particularly as they might relate to a specific business or organization with questions like:

- What is your experience with the Web?
- What activities do you participate in on the Web and how often?
- What would motivate you to visit our Web site?
- What are your expectations when you visit our Web site or a Web site for a business similar to ours?

**Step 3.** Walk focus group participants through the Web site and note their responses to the following questions:

- When you view this page, which elements are prominent to you?
- What is your interpretation of this element and why?
- How important is this particular element to your Web site visit and why?

It is important to remember that this point of the research is not the same as usability testing. The goal is not to see whether the participants can successfully navigate, but to identify what they notice on the Web site and how they interpret the different elements.

**Step 4.** Document responses. Focus group responses can be documented with the assistance of note takers and can be audio or video recorded and fully transcribed. To help ensure the credibility of the findings, member checking (Erlandson, Harris,
Credibility Testing for Small Business Web Sites

Skipper, & Allen, 1993; Lincoln & Guba, 1985) can be employed to summarize, restate, and verify participant expectations, interpretations, credibility judgments, and experiences with the Web or organization.

**Step 5.** Analyze participant comments to identify elements of the Web site that both positively and negatively influence the credibility judgments that visitors make. Statements should be analyzed using open coding to form categories based on similarities of the language used. Statements can be compared, contrasted, and combined in main categories or subcategories and sometimes renamed until they are reduced to a point where further reduction of the list is no longer possible (Glaser & Horton, 2004).

**Step 6.** Determine key improvements that can be made to the Web site. The improvements must focus on the most troublesome areas, must address credibility concerns identified by visitors, and must factor in the time and resources of the organization that will need to implement the improvements.

The following case illustrates the simplicity, power, and effectiveness of this process.

**Credibility Testing in Action**

In the following paragraphs, I demonstrate how the six-step credibility testing process was put to use for small business Web sites and led to significant improvements. The small business Web site examined in this section was chosen because it shares commonalities with many small business Web sites—including the two influences described above: it was created with a low-cost open source program and is maintained by a few part-time employees with no prior experience in Web site maintenance or marketing.

**Overview of Web Site**

On A Lark (OAL) is a gift boutique that employs one full-time manager, two part-time sales associates, and student workers throughout the academic year who qualify for work-study awards. When the shop opened in fall 2009, the manager invested in a $50 open-access, flash-based Web site template from blu domain. The staff took pictures in the storage room with a personal camera and went live with a Web site in one day. The store’s Web site, www.giftsonalark.com, is not an e-commerce site for two reasons. First, as a boutique, the product line is ever changing and products are purchased in small quantity. Second, since OAL only has a small staff, the manager was concerned about the maintenance and sustainability of the site, in particular product availability and accuracy. Their intent was to have a Web presence that showcased the store’s ambiance, location, and unique gifts and that drove consumer traffic to the store and Facebook site.

**Step 1: Identify and Recruit Participants**

People who were considered likely consumers of OAL were recruited for four focus group sessions. Two focus groups consisted of 18- to 22-year-old female college students. The other two focus groups consisted of professional women ages 30 to 49. Of the four focus groups, the participants for three of the focus groups were recruited from the population of College of Saint Benedict, which is the college that owns and operates OAL and which is located across the street from the store. The fourth focus group included professional women recruited from within one hour of the store.

Of the 34 focus group participants, 17 had been to the retail site OAL; all 17 enjoyed the breadth and uniqueness of product as well as ambiance of the store—and 13 of those participants had made purchases from OAL in the past. The remaining 17 participants had not heard of OAL before the credibility test. None of the participants had visited the Web site www.giftsonalark.com.

**Step 2: Determine Online Experiences and Expectations**

Based on Fogg’s factors that influence Web credibility judgments, questions were asked to determine Web visitor intent, expectations, motivation, and prior experiences on the Web. The questions also addressed what Web visitors viewed as prominent elements of the Web site as well as their interpretation of these elements. Questions included:

- “Tell me what activities you do on the web and how often you do them?”
- “What might motivate you to visit the Web site www.giftsonalark.com?”
Data from this stage of the process was used to: (1) determine the factors that women use when setting expectations and making credibility judgments about a small business based on their Web experiences, and (2) identify if those factors vary generationally.

**Step 3: Walk Participants through the Web Site**

During the focus group, participants were asked to look at all Web pages of www.giftsonalark.com to provide initial reactions and respond to discussion questions. Questions included:

- “When you first look at this page of www.giftsonalark.com which elements grab your attention and why?”
- “How important is this particular element to your Web site visit and why?”

**Step 4: Document Responses**

Discussions were transcribed. I served as moderator and a note taker for all focus groups. The two focus groups of 18- to 22-year-olds included three additional note takers because these two groups had more than ten participants in each group. One focus group included one additional note taker besides me, and I served as the moderator and sole note taker for one focus group that had three participants.

**Step 5: Analyze Comments**

All statements for each focus group were organized into a unit for generational segmentation. Then, all statements were mixed with group identification removed. Statements were analyzed using open coding to form categories based on similarities of the language used. Statements were compared, contrasted, and combined in main categories or subcategories and sometimes renamed until they were reduced to a point where further reduction of the list was no longer possible. The resulting list highlighted factors that influence expectations and credibility judgments about Web experiences for visitors to www.giftsonalark.com. Final analysis revealed that focus group participants who were motivated to browse the OAL Web site expected the retail Web site to:

1. Clearly, quickly identify what the retail establishment offers
2. Make it easy to engage with the business
3. Be current, accurate, and purposeful

The credibility test revealed that those expectations were not met for likely consumers of OAL. Therefore, the participants did not believe the Web site projected the level of credibility that would inspire them to engage with the company by visiting OAL’s store in the future. Specifically, five key findings were identified. Those findings are described in detail below.

**Finding 1.** When the home page (Figure 1) was created, the intent was to raise awareness about various elements of the new brand, including the store name, logo, and tagline. Therefore, these were positioned as the most prominent elements on the OAL home page. Other elements included five navigational links and a note that said the product is ever changing, so consumer should stop by the store often.

Focus group participants did not interpret the home page favorably. The prominent elements of this page did not clarify the store’s product offering. Some focus group participants made credibility judgments about the store neglecting or ignoring its Web site. For example, two focus group participants who were not familiar with the store asked if it was a bookstore or a...
Focus group participants, in general, were still unclear what On A Lark offers consumers based on the prominent elements of the Extraordinary Things pages. In addition, several participants noted frustration that they would have to click two additional times to find products.

Finding 2. While focus group participants were initially pleased to finally see prominently displayed products on the Extraordinary Things page (Figure 2), the absence of product descriptions, general product categories, and pricing limited the Web site visitors’ ability to grasp what OAL offers.

Moreover, the prominence of the white space—and limited product—was again interpreted as the site being neglected. Responses included: “Why does the Extraordinary Things page take me to another page called Extraordinary Things?” and “Are we waiting for more to load?”

Participants who had expressed a willingness to click on the Extraordinary Things page after being disappointed with the home page noted they would end their Web visit.

Finding 3. Across all focus groups, the About Lark page (Figure 3) caused an instant, audible, and positive reaction. Focus group participants who were familiar with OAL felt the prominent interior store photo on this page represented the experience of OAL.

Those not familiar with the store were immediately intrigued by it and made comments such as:

- “It looks cute.”
- “It looks fun.”
- “This picture makes me want to go there.”
- “It looks cool.”
- “Eclectic. I like it.”
- “Like searching for a good hotel, you want to see where you are going.”
- “I want to get to know the place.”
- “It’s cuter to see the store than the items.”

The About Lark page was also the first page that offered body copy instead of just headings and subheadings:

A visit to On A Lark will engage all your senses whether you are a first time customer or loyal Lark fan. Our extraordinary things are ever changing, so stop in often. On A Lark is proudly owned and operated by College of Saint Benedict.

Most focus group members liked the first two lines of the body copy to set expectations about what OAL has to offer consumers, namely an ever-changing product line that one has to experience in store.
Participants felt this page lent credibility to OAL because the store is a destination shopping experience. Consumers have to plan to go there. As a result, participants noted the hours of operations and visual identification of the store exterior would help consumers plan their excursion. The one negative interpretation was the use of a seasonal store exterior, which gave the impression of being dated and neglected.

Overall, the prominent image and introduction of body copy yielded positive interpretations about the small business and its credibility as a retailer.

The third line, “owned and operated by College of Saint Benedict,” generated conversation about why College of Saint Benedict owns the store and how profits are used, namely to support student scholarships. Of the 34 focus group participants, all believed further explanation about the OAL and CSB relationship was essential. More importantly, they felt the relationship—as well as the financial support of student scholarships—should be celebrated; this, in turn, would lead to repeat business as well as positive feelings about purchases because the profit was put to good use. Participants offered the following comments:

• “Knowing that profits support student scholarships makes me feel better about my purchase. This aligns with my giving priorities.”
• “That makes me want to shop more. I’d bring my sisters.”
• “I’m so taking my mom there when she picks me up for break.”

All focus group participants recommended the prominent elements of this page be placed on the home page where they would be well received and would set expectations about the shopping experience in store and on the Web site.

Finding 4. Overall, focus group participants believed the Store page lent credibility to OAL by providing helpful information to the consumer (Figure 4). First, the information on this page was useful and prominent, particularly for consumers who have to make OAL a destination site rather than an impulse shopping experience. Because the store is located in a small college town, consumers who do not live or work in St. Joseph, MN must make a conscious, intentional effort to go there. Knowing the days and hours that the store is in operation would allow consumers to plan their shopping trips to OAL, participants noted. Many participants commented that showing the exterior image of the storefront helped consumers not familiar with Saint Joseph, MN easily recognize and locate the store when visiting the town.

The one negative interpretation expressed by a few focus group members was the use of a seasonal exterior storefront that made the site appear dated and neglected. Focus groups took place in spring; however, the photo was believed to be from autumn, since it featured pumpkins.

Finding 5. More than half of all focus group participants commented negatively about the Contact Us page (Figure 5). They noted the store manager’s contact information was easily located on the pages About Lark and Store Hours/Location but incomplete and not at all prominent on the actual Contact Us page. Nearly all focus participants believe the contact information should only be on the Contact Us page.
Credibility Testing for Small Business Web Sites

Not one focus group participant liked the prominent photo on this page. In one woman's words, “That does nothing.” All recommended another store interior shot that would showcase the ambiance of the store.

Focus group participants were asked to rate their interest in OAL based on their exposure to the OAL home page (Figure 6a). Their rating was based on a scale of 1 to 10 with 1 being “I have no interest in OAL” to 10 being “I must visit OAL.” They were also asked to rate their interest in OAL based on their exposure to the About Lark page (Figures 6a and 6b) using the same scale.

Of the 34 participants, 27 expressed little or no interest in the OAL retail site based on the home page (figure 6a). Their responses are reflected in the left-hand columns of the graph (figure 7). Nearly all of the 18- to 22-year-old participants said they would not click to another page to learn more, nor would they visit the store. Simply put, the home page (with its prominent graphic and white space) did not translate to a credible organization with which they would want to engage. A few of the older participants noted they'd be willing to look at one more page before abandoning the site and the organization. After viewing the About Lark page (Figure 6b), however, all 34 participants expressed more than moderate interest in OAL as indicated by the right-hand columns in the graph below (Figure 7).

The key difference that led to such opposing credibility judgments was the one prominent graphic. The single, prominent logo on the home page (which was used to establish the brand identity) was not interpreted favorably because it did not provide consumers clarity about OAL and what it offered. The single, prominent store interior shot, on the other hand, captured attention and inspired Web visitors to want to learn more.

**Step 6: Determine Improvements**

Based on results of the study, a number of improvements were identified that could be made to OAL’s Web site to improve the site’s prominent elements, yield positive interpretation of those elements, and, as a result, improve the organization’s overall credibility. In determining the improvements, the limited staff and resources of OAL were considered—since those factors would influence whether the organization could implement and sustain the improvements.

The screen captures that follow illustrate the improvements that were identified for (and subsequently made to) www.gifstonalark.com based on the credibility test.

**Improvement 1.** Set ambiance and expectations.

The home page of the site was revised to showcase interior images of the store as well as a few products (Figure 8).
The revised home page was updated to make those elements more prominent. In doing so, the home page establishes the ambiance of the retail site, reinforces the ‘boutique’ brand experience, and suggests the product line is unique and fun. The addition of body copy makes it clear that the store is owned by the college and that profits are used for scholarships. In addition, the copy encourages visitors to visit the store frequently:

On A Lark is owned and operated by College of Saint Benedict. 100% of our profits support extraordinary Saint Ben’s women through scholarships. Our extraordinary items are ever-changing, so stop in often.

Improvement 2. Clearly identify product categories. The majority of focus group participants agreed that several clearly defined product categories—coupled with images of the store’s ambiance—would drive traffic to the store from the Extraordinary Things page (Figure 9). Comments explaining the expectations and interpretations surrounding this change include:

- “I need to know it’s worth my time to go there.”
- “I don’t expect small specialty stores to sell their product online. But, I like to check their Web site to make sure they are still around and get their hours.”
- “If I’m going on vacation, I search the web to see what kinds of boutiques and antique stores are in the town, so I can visit them. Based on their Web site, I decide if I’m going to go to the store.”

Nearly all focus group participants agreed that product categories should be clearly labeled rather than, in their words, clever or cutesy; clear labeling helps the consumer quickly identify types of products available.

Focus group participants, in general, believed it wasn’t necessary to include third-level pages for each product category since consumers couldn’t make purchases on the site and product was always changing. 

Improvement 3. Help locate store. The primary change to the Store Hours and Location page (Figure 10) was adding a prominent non-seasonal photograph of the storefront taken from the main intersection in town to give visitors a visible reference for locating the store. The use of a non-seasonal photograph helps ensure the site doesn’t look dated and unkempt.

Improvement 4. Use Webpage real estate wisely. This improvement included replacing the image on the Contact Us page with an interior store shot that made the store’s ambiance more prominent (Figure 11); Using another interior store shot reinforces the ambiance of the in-store experience. The image also provides a visual overview of additional products in the store.

Overview of Improvements. The changes made to the prominent elements of OAL’s Web site elevate the brand experience for web visitors to align with the retail store experience. The limited body copy is prominent on every page and establishes clear expectations about the Web site’s purpose, and the addition of more
Credibility Testing for Small Business Web Sites

Figure 11. Updated Contact Us Page

The prominence of the store interior reinforces the ambiance of the in-store experience and, again, showcases product.

interior photos and representative product photos add to consumer enjoyment and interest in the OAL experience, hopefully driving traffic to the store by making it easy to engage. In addition, the changes were intended to have a long shelf life, so the small staff at OAL only had to focus on updating store hours when they change.

Uses and Implications of Prominence-Interpretation Theory

When a Web visitor goes to a Web site, they notice Web site elements; that is to say that Web site elements will be prominent to them. Subsequently, they will make interpretations about these elements, leading to a credibility judgment about the Web site, the information presented, and the organization sponsoring the site. Much of the Web site credibility research conducted to date analyzes Web visitor feedback on Web sites that likely would be visited with a high level of motivation and some inherent risk, such as Web sites focusing on health information, requiring input of personal information, or offering financial transactions.

Credibility becomes increasingly important for small businesses if they do not require a high level of Web visitor motivation to visit or inherent risk to engage with their Web sites. After all, first impressions by Web visitors may be quick and detrimental to an organization if prominent elements do not yield an interpretation of credibility and subsequent engagement with the business or services. Conducting credibility testing (based on Prominence-Interpretation Theory principles) provides a simple, cost-effective process for identifying credibility issues and improving Web sites. Below, I suggest the implications and uses of this testing for a variety of technical communication scholars, consultants, and practitioners.

For Practitioners

Usability testing is a valuable tool to ensure a Web site is functional in its ease of use. A Web site that is usable in terms of navigation can still have credibility issues that reflect negatively on an organization. In fact, free or low-cost Web site software that may be deployed by small businesses (like Drupal, blu domain or WordPress) often have tested, usable navigation as well as aesthetically pleasing design skin. As the case study above suggests, these positive attributes of On A Lark’s blu domain Web development software were not sufficient to yield positive credibility judgments about the organization On A Lark.

For Technical Communication Scholars

Similarly for technical communications scholars, we need additional research to branch out and broaden our understanding of Web visitor credibility judgments about organizations that do not have an inherent risk or high level of motivation essential to their Web visitor experience. Further research could explore if expectations and credibility judgments are more forgiving based on the size, location, or purpose of an organization; that is to say, do Web visitor expectations change based on the scope of the organization with which they are trying to engage? To put it another way, do Web visitor expectations differ when visiting a site for a bed and breakfast versus an international hotel chain? Do Web visitor expectations differ when visiting a site for a small boutique versus a regional or national retailer or big box store? Do Web visitor expectations differ when visiting a site for a local plumber versus a regional or national trade franchise?

Another area worthy of investigation is the concept of amateurism. In past Web credibility research, amateurism was one of the factors participants considered when making credibility judgments (Fogg, et al., 2001, p. 63). Amateurism has been connected to the size of the Web site, the site domain name, typographical errors, whether the site was hosted by a third party (like
WordPress or Drupal) and whether or not the site had been updated, among other things. In the case of On A Lark, the Web site offers only six pages and was designed to have a long shelf life with few updates due to resource constraints. In addition, the Web address includes the store name; however, the use of only the store name was not available because another store of the same name exists in another state. Based on these elements, credibility judgments would be expected to decrease based on past research. As scholars, we must further examine if negative Web visitor credibility judgments are mitigated by a sliding scale of expectations, particularly for small businesses.

For Teachers
As educators, we must help our students understand the importance of credibility judgments in conjunction with usability when analyzing effectiveness of Web sites. This teaching should provide a broader perspective of credibility beyond safety, security, data integrity, and aesthetics. Introducing Prominence-Interpretation Theory principles and credibility testing would serve as a valuable method for evaluating credibility judgments about an organization based on its Web site.

Technology has made it easier for organizations to develop a Web presence, even if they do not have full-time staff members who are trained in coding or Web communication strategies. The end result may be Web sites that are usable and credible in terms of design and navigation, but that lack credibility from a communication standpoint. Credibility research can be conducted by those organizations with little time or money using Prominence-Interpretation Theory principles. That research can uncover specific actionable lessons that dramatically increase the credibility of a Web site and the organization.

References


Credibility Testing for Small Business Web Sites


About the Author

Heidi L. Everett is a doctoral student at Texas Tech University in Technical Communication and Rhetoric. She is studying visual rhetoric, new media, and user-centered design. Her work has been published in *CUR Quarterly* and *Intercom*. She has more than twenty years experience in marketing communications in business and higher education and currently serves as director of institutional advancement at St. Cloud Technical & Community College; her responsibilities include marketing, communications, fund raising, and community relations. Contact: heidi.everett@ttu.edu.

Manuscript received 22 May 2012; revised 2 March 2013; Accepted 9 April 2013.
The Minimalist Approach to Online Instructional Videos
Ehren Helmut Pflugfelder

Abstract

Purpose: The instructional project described in this article explores a model for re-conceptualizing a form of short video instruction manual termed here as the “Web app video.” The goal is to determine whether explicit instruction in minimalism can help students (and practitioners) apply such principles and heuristics to the genre of Web app videos and aid in invention within emergent documentation scenarios.

Method: An instructional method was used in this study, specifically the introduction of minimalist documentation concepts and heuristics to instructional video production. This study compares assessment rubrics completed by students as pre- and post-test assessment data, though the success of the instructional method is not dependent upon these results.

Results: After working with minimalism heuristics, student-produced videos showed greater attention to imperative mood language, task-orientation, and error representation than existing videos for Web applications. Though student-produced videos lacked production polish, they showed evidence of minimalist strategies.

Conclusions: Minimalist documentation strategies can be successfully taught and applied to short videos designed to entertain, encourage, inform, and instruct potential users while enabling them to engage the Web application with more knowledge.

Keywords: instruction manual, minimalism, multimedia, video, user documentation

Practitioner’s Takeaway

- The documentation of small Web applications often includes short introductory videos designed to promote and explain the service.
- These “Web app videos” do not always enable potential users to understand the tasks they may encounter, though too often these videos stand as the primary documentation.
- The introduction of minimalist heuristics offers task-based, condensed instructional elements that also represent possible errors.
- The classroom activity presented here shows the potential for increased development in minimalist instruction, particularly in helping technical communication students respond to new documentation situations.
Minimalist Approach to Instructional Videos

Introduction

The number of small, Web browser-based and mobile phone-based applications increases by the day. Rough estimates place the number of iPhone apps at 600,000 and the number of Android apps at about half a million, not counting the thousands of Web-based apps that can be operated through tablet-, laptop-, and desktop-run Web browsers (Rowinski, 2011). Most app development teams (or individuals) do not create traditional forms of user documentation, like a user manual—or even a quick start guide—because of two main constraints. First, the time and effort used to produce the documentation would likely outmatch the time and effort used to produce the app itself. Though there is no standard guideline for app development, some have reported that the development process can occur in as little as a week (iPhone SDK, 2009). Second, apps are not often built to do a wide range of complex tasks, but are instead created to corral a few related tasks, thereby eliminating the need for a complete manual that covers a broad range of technical details and configurations. Longer and more complete forms of user documentation, like the owner’s manual or user manual, have shown to be less popular in these app projects, and in their place we see a rise in hybrid forms of documentation. Specifically, a hybrid form of video—neither solely instructional nor promotional—has emerged as a method by which users are introduced to new Web app products.

These hybrid video forms have surfaced in much the same way that new forms of online needs-based instructions, such as message boards, wikis, and interactive FAQ pages, have grown in popularity. Selber (2010) has recognized these trends within ad hoc instruction sets, noting that they “have become a fixture and a focus of online participatory culture, which illuminates the significance of technical communication to an ever-widening audience of authors and users” (p. 98). It only requires a quick browse through a few Web apps to see that the abovementioned forms are widely used. For example, Trapster (trapster.com), a phone app that lets users know of police and red-light cameras, includes an FAQ page, a short video introduction, and a messageboard, relying on user feedback for much of the product information. Doodle (doodle.com), an app that helps users schedule events among large groups of people, offers an introduction video, a FAQ page and several “help” pages. Backpack (backpackit.com), an app that organizes meeting and group information through a notebook-system of Websites, uses an introductory video, a series of how-to videos, a FAQ page, and a messageboard. In much the same way that user-sourced messageboards do not fit more traditional conceptions of technical documentation, the video forms created as the general introduction to each of these apps are likewise novel.

Typically, these videos introduce the potential user to the Web app, illustrate what the app is able to accomplish, explain the primary ways in which the app functions, and (hopefully) energize the potential user to become an actual user. Instead of a straightforward instruction set video, these hybrid videos function as a quick how-to and a form of promotional material, often delivering information about the app’s functions in an entertaining way. Likewise, these videos do not fit neatly into the three conceptual models of instruction sets that Selber identifies—self-contained, embedded, or open. Self-contained sets are created by developers as fixed content that includes all of the instructions necessary for completing a task, embedded instructions are user-created and can take the shape of the abovementioned screencast videos or messageboards, and open models are mutable forms of documentation, like the abovementioned wiki pages. These introductory videos fit a slightly different model. Like a self-contained manual, they are produced or contracted by the content producers, but unlike most instruction sets, they primarily serve as starting points that generate enthusiasm on the part of potential users who may already be tech-savvy enough to operate many of the app’s functions. After all, most apps are not meant as replacements for feature-rich software, but intended to be small tools designed to accomplish only a few tasks. Similarly, these videos are not intended as complete sources of information, but enabling introductions to intentionally limited applications.

In many cases, these hybrid video forms are neither particularly detailed nor as useful as “manuals,” that is, as documents that directly aid users in performing tasks they wish to complete. A typical video focuses on “features” rather than tasks, fails to enable guided exploration once users have signed up for the app, and does not minimize ambiguity through the use of words and images. It can be said that these hybrid videos,
then, are not particularly good as instruction manuals, and I hazard that most technical communicators would agree. However, they share several features of minimalist documentation, as described by Carroll and Van der Meij, aside from their relatively brief playing time, and, as I argue in this essay, would benefit from a more complete integration of minimalist documentation concepts in the video production process. Here I seek to answer the questions: 1) are students able to apply minimal principles and heuristics in the assessment and production of Web app videos, and 2) does such instruction aid students in adapting instruction manual language to novel technical documentation situations? Though the second research question was less precisely measured during this project, I believe both questions are answered in the affirmative. This essay outlines a procedure for teaching the minimalist Web app video manual and focusing on task orientation, while retaining the video’s marketing features. I explain the changing genre of instruction manuals, the ways in which Web app video manuals could be improved, how minimalism plays a role in this improvement, and how I have taught a minimal video manual project in technical communication courses.

Web App Video Manuals

In suggesting that minimal video manuals constitute an emerging form of documentation, I am also suggesting that the manual—as a genre—is changing. Such a claim should come as no surprise to those familiar with rhetorical notions of genre that suggest they are temporarily stable understandings of continuously variable forms. Miller’s claims about genre in 1984 initiated rhetorical genre studies (RGS) for many technical communicators, especially her claim that “Genres change, evolve, and decay: the number of genres current in any society is indeterminate and depends upon the complexity and diversity of the society” (p.163). For Miller, and for many others who have expanded on her claims, such as Bazerman (1988), Russell (1997), and Devitt (2004), genre refers to a level of familiar traits identified through the social context that creates them and activities they enable. The instruction manual, as a longer, written form of user documentation, emerged to accommodate an audience that wanted a direct way to engage a product and/or process. Selber has noted that the Web has been instrumental in incubating new genres, where new rhetorical situations have facilitated novel responses. He claims that emerging rhetorical engagements on the Web “both stabilize and destabilize—articulate and rearticulate—the genres of technical communication (Selber, 2010, p. 96). The manual, as one of the most common technical communication genres, has been slowly mutating in response to a wide array of influences, sometimes emerging as a user-created wiki, sometimes as an *ad hoc* messageboard with threads of responses, and at other times as a short video designed to encourage and enable product use. What we are seeing in the Web app video is a relatively new form, one that functions as a quick-start guide, not a complete manual, and often promotes the product while it introduces it.

Larger video instruction manuals can involve a great amount of detail, numerous chapters, clear visuals, and direct, imperative language, while also providing a wealth of dynamic visual information—mirroring long-form instruction manuals. Durack (2003) locates the post-WW2 value in technical writing as built upon a need for clear, precise technical manuals, quoting Marschalk’s claims that without good technical manuals, the “vast assortment of machinery in industry . . . would haltingly grind to a general slowdown or stop” (p. 572). Here, communicators focused on creating easily understood, standardized texts so that users could undertake safe, appropriate actions once the corresponding situations arose. Most technical communication textbooks available today mirror these concerns in their own chapters on the design, writing, and production of what are referred to as instruction, user, or technical manuals. However, few texts refer to *video user manuals* beyond a passing reference. In order to find real-world instances of detailed video manuals, we do not have to look far. For example, GMC’s owner’s manual videos provide specific steps to control a sub-set of tasks, with distinct videos for each unique set (2010). In contrast to this complex manual, Web app videos are notably shorter and include less information. The video introducing Dropbox (dropbox.com), a cloud storage service, is casual in tone, includes a general overview of the app, offers a cheerful, hypothetical scenario in which the app is used, and encourages viewers to engage with the service, all within a two-minute playing time. While this video shares some
features in common with the GMC video (employing a stand-in for the user, describing overall goals, and offering a real scenario), many other aspects of Dropbox's video do not fit the model given in most technical communication textbooks.

Web app videos also share similarities with the form of manual often called the quick-start guide or the “streamlined step” procedure manual. Not intended to support an entire procedure, these manuals instead introduce the confident user to basic functions or a specific process, or help a user set up a hardware or software system. In a study of help systems, Farkas (1999) explains the distinction between the longer form manual and streamlined step procedures. Streamlined procedures often feature: 1) brief steps, 2) simple formatting, 3) a stronger focus on imperative verbs, 4) little preceding information, and 5) hypertext links to “layer” the information (p. 45). Amazon.com's guide for the 6 inch Kindle offers a good example of a streamlined manual, as it focuses on the steps required to get “around,” “connected,” “registered,” and how to buy a book—the elementary functions a user would want to understand about the device. The visuals are simple, specific steps are stated directly (leading with the imperative verb and foregoing extraneous detail), and users are directed to more information in the Kindle User’s Guide, also located on the device. However, Web app videos are often not as specific, direct, or “linked” to other forms of information as the quick-start guide. In the Web app video, we have a form derived from the user manual, but less detailed, more casual, and likely less effective in helping users complete new tasks.

**Watching to Learn to Do**

The Web app video manuals we see when encountering new apps do not make particularly precise user manuals, but do they need to be particularly precise? One might ask, and rightly so, “since Web app videos fulfill several roles—both informational and promotional—why would we also expect them to function as useful user manuals?” Certainly, this is a fair question, but a fair response could focus on the lack of additional documentation offered by many Web apps. While no substantial study has counted the forms of documentation provided by Web apps, most provide a FAQ page or crowdsourced documentation in lieu of a manual. Workitywork (workitywork.com), a real-time workplace enhancement site, offers only a short video and a seven-item FAQ list. Cozi (cozi.com), an online organizer and calendar, includes a short video, help items such as “Features” and “Ways to Use” the site, and provides a 10-item FAQ list. The typical amount of user documentation falls somewhere in-between these two examples, with some re-directing help toward an email system or user- and expert-populated messageboard or wiki. Many Web apps do not provide much support documentation—interactive, user-generated, or otherwise—but instead rely on FAQ pages and introductory videos. It stands to reason that while these videos currently fulfill two roles, informational and promotional, they could also offer task-oriented support.

Unsurprisingly, many current Web app videos do not make very useful manuals. If we use Redish's advice in “Reading to Learn to Do” (1989) on what a good tutorial should accomplish, we understand that language that serves “doing” tasks should help users 1) “Gain a basic understanding of the concepts and structures,” 2) “Become comfortable […] so that they will want to continue to use it and be satisfied with it,” 3) “Be able to perform basic, relevant tasks,” and 4) “Transfer what they have learned from the examples in the tutorial to other situations that were not directly covered in the tutorial (Redish, 1989, p. 290). Farkas adds that the vocabulary and level of detail should fit the audience and that the goals should be presented as achievable (p. 43-44). We could complement those characteristics with a host of concerns about visuals, warnings, “unambiguous” language, and appropriate timing between audio and video. Most app videos are excellent at showcasing some of what can be accomplished, with an energetic tone and bright visuals—however, most Web app videos are often less considerate of the user than they could (and should) be. Three main concerns arise here. Web app video documentation is often: 1) poor at guided exploration, 2) feature-oriented rather than task-oriented, or 3) ambiguous with regard to language use.

1. Concerning guided exploration, while an app’s interface may also encourage investigation, the video is unlikely able to generate an immersive environment that leads the user through a process of exploration, discovery, and learning. Because Web
app videos often dedicate a considerable amount of time convincing potential users that they should download or sign up, many reference only a small portion of the app’s interface or navigations.

2. Regarding task-orientation, these videos often give users something more akin to a “tour” of what the app can do for them, and often tout the difference between free and paid versions (if applicable). While this level of detail may encourage users to sign up, it is unlikely that many use the video to understand step-by-step processes for accomplishing basic tasks. This ‘feature-focus’ attends to the video’s first goal—the download or signup—but misses out on the opportunity to show and explain some of the fundamental tasks inherent in doing something with the app.

3. Related to language use, few video manuals employ imperative mood, active verb, present tense language that helps users clearly identify specific instructions. Again, in the goal to provide potential users with the encouragement to download or sign up for an app, many Web app videos use casual language in describing what the app does and what activities it can be used to accomplish. Such language is neither inherently bad nor always a hindrance for user comprehension, but a lack of direction to key tasks, specific terminology, and clear video imagery avoids focus on the instructional aspects of these videos.

While some app videos are constrained by quick production timelines and a lack of resources, they need not avoid specific task-based instructions. The video instruction manual project that follows focuses upon task-based details and addresses the three main concerns with Web app videos referenced above. In the past, Carroll and Van der Meij (1996) have argued that coming changes in technology would bring “more opportunities for discovering minimalism and more challenges for applying minimalism than ever before,” and here I attempt to illustrate one such opportunity (p. 84). Not only do students appear able to implement concepts of minimalism to short video manuals, but also Web app documentation itself provides a useful location for instructing future professional writers how to compose in difficult or unorthodox workplace scenarios.

**Minimalism**

Minimal instruction emerged following the work of Carroll, a social scientist at IBM, most notably after he published *The Minimal Manual* (1987), *The Nurnberg Funnel* (1990), and the edited collection *Minimalism beyond the Nurnberg Funnel* (1998). Essentially, minimal documentation design is a heuristic that relies on psychology and empirical user-centered research to bring a smaller amount of task-based information to bear on a user’s processes. Though simple in concept, good minimalist design is challenging to implement because technical communicators need to conduct significant research in order to understand how users will engage, learn, and act with abbreviated instructions. In order to support discovery learning and exploratory impulses on the part of the user, minimalist documentation strategies suggest that professional writers learn what aspects of their software’s interface compel users, represent how the system functions, and contribute to an understanding of the software. Good minimalist design is not a complete solution to documentation, because the perspective of minimalist user design assumes that complete documentation is not necessarily a desirable thing (Carroll & Van der Meij, 1996, pp. 82-83). Such design principles empower users to learn while they encounter, not from an undirected “trial and error” method, but from an active engagement learning perspective where documentation design focuses on “supporting the user’s sense-making” processes (p. 83). The designer anticipates users’ assumptions and probable errors while accommodating and accelerating user experimentation and learning.

A complete review of studies that argue for the value of minimalist computer documentation would be beyond the scope of this article, thus it is perhaps sufficient to claim here that theories of minimalist documentation and support software are acknowledged as useful, if not broadly applicable. Instructional applications of minimal documentation have often been used but far less often described. Oatey and Cawood (1997) have explored the complications and possibilities in applying Carroll and Van der Meij’s minimal heuristics and Manning (1998) has focused on how minimalism can be applied beyond computer documentation. We have yet to see many descriptions of minimalist documentation in the era of Web
Minimalist Approach to Instructional Videos

(1993-present). However, in the case of the Web app video, we can employ minimalism in order to realize both industry-related and pedagogical goals.

Minimalist documentation concepts are appropriate for the Web app video described here, because they reduce documentation volume with a strategic method, not simply by excising language or running time. Minimal documentation concerns the “sense-making” processes of users and engages investigation without the commitment of a great deal of time or energy. These short videos continue to entertain potential users, while enabling them with the confidence and knowledge to explore. Appropriately, some Web app videos already show signs of minimal design, even if rather nascent ones. Even by illustrating features, they demonstrate a context of use, providing potential users with a level of immersive understanding. For example, Sococo (www.sococo.com/home.php), a Web app that provides virtual space for group work, offers a video illustrating much of the Web interface, providing potential users with site knowledge as well as details affording exploration.

Second, minimalism can be developed into effective and meaningful pedagogical adaptations, well beyond the obvious advantages of a “short” class project to a 10- or 15-week educational calendar. For one, minimalism is a set of heuristics, rather than set-in-stone principles, even if those heuristics can sometimes conflict with each other, as Oatey and Cawood have argued (1997, p. 265). Carroll and Van der Meij (1996) observe that minimalism acts as a flexible strategy that focuses on results that are appropriate to circumstances, arguing that “minimalism necessarily evolves with the context of information technology and information development practice” (p. 84). The adaptation of flexible heuristics to writing and composing scenarios assists technical communication students in recognizing the multiple ways they can adapt to complex situations. If one of the goals of technical communication education is to prepare students for a wide range of future knowledge work, then the conceptualization and production of a minimalist-focused Web app video certainly fits well.

The Web App Video Project

This Web app video manual project has been taught to three sections of undergraduate technical communication in a course comprised of students completing degrees in engineering or other STEM programs. This project was taught after an instruction manual assignment in which students developed their own print-based, step-by-step, task-oriented manuals, complete with original digital images, and worked with Adobe Photoshop and InDesign. As I have taught it, the video Web app project occurs in three main phases that correspond with readings concerning minimalism, several editing tutorials, and a number of project-planning assignments. In the first stage students identify and assess Web app videos, in the second phase they incorporate minimalism heuristics, and in the third phase they produce their own videos. Students are introduced to concept of Web app videos and asked to seek out additional examples. Then, they simultaneously research Web apps that do not yet feature videos and propose groups based upon those apps. While they self-organize, we examine the student-located examples of Web apps videos to identify similarities and differences. Though there is certainly a range of nuance within each of these categories, students have identified the following types of videos.

Identifying and Assessing Web App Videos

Fixed Videos. Fixed videos often use live-action performance to narrate a site’s main features; these short videos are then posted on any number of video hosting sites like YouTube or Vimeo and embedded on an appropriate Web page. If live-action, they feature an actor who explains the app’s features. These videos achieve an extra dimension of interactivity, because the location of the video on the page can be determined in advance and the actor in the video can gesture to specific features. For example, if the video is embedded in the center of an app’s homepage, the actor can gesture to the features of the Web app that run along a top menu of the homepage while simultaneously pointing above her head to said menu. This kind of directed orientation is particularly effective in app interfaces that include a number of menu elements. For an excellent example, see the video for the now-deceased Google Wave (Figure 1).

Cartoon/Papercraft/Whiteboard Videos.

Cartoon, papercraft, or whiteboard videos are actually three smaller types of video that share common attributes. All three involve either sequential drawing,
stop-motion animation (a sequence of individual photographs), or live action video. “Cartoon” videos are not always hand-drawn cartoons, but the name references a range of unique graphic-heavy video demonstrations, typically featuring avatars for users. Papercraft videos include paper cutouts of users and various technologies (sometimes metaphoric) to show possible narratives and to guide users through a process. Stop-motion whiteboard videos function similarly, though use pen-on-whiteboard drawings of these same elements. In some cases, cartoon, papercraft, and whiteboard elements are used together, such as in many of CommonCraft’s videos (see Figure 2). The cartoon/papercraft/whiteboard video appears to function best when users desire to be taken through a complex process, or need to see a process expressed visually.

**Screencast Videos.** Screencast videos are likely the most common form, as numerous software tutorials are offered as screencasts. These videos are facilitated by screencasting software that gives the user the ability to record what occurs on his/her screen (part or whole) and the corresponding audio. Many good screencasts include shots of the entire screen and close ups of specific actions and processes, as Morain and Swarts (2012) have explained in detail. Different shots and screen sizes can be edited together with common video-editing programs such as iMovie or Movie Maker, as well as with more professional programs (additional audio can similarly be joined and edited with these video elements). Examples of screencast videos are plentiful, though good examples can be found through well-known software companies’ Web sites, such as Adobe’s Design Suite tutorials (see Figure 3). Screencast videos are employed when users would like to be led through that procedure step-by-step. Few Web app videos are wholly comprised of screencasts, as they are often less entertaining, but can include screencast/screenshot elements.

In order to determine the effectiveness of these Web app videos, I led brainstorm sessions with students in which we identified features that made the videos compelling, instructive, and useful. Though different videos offer unique qualities, we focused on elements that contributed to several main goals. The generalized outcomes of these sessions (from three different courses) produced our expectations for Web app videos. We
found that videos should 1) inform potential users about the Web app’s purpose 2) through specific, task-based information, 3) while being entertaining, 4) thereby enabling users to explore the app, 5) all in less than three minutes. These main goals translated into attentiveness to several key areas and then into a generalized rubric, which students used to evaluate example videos.

The rubric I developed with students includes assessment criteria familiar to those who have evaluated long-form, text-based user manuals (see Table 1). This is likely because students recently completed that very project and because I led the discussion. We included a focus on language use, to encourage specificity and consistency, task-orientation, to focus on processes rather than features, action, to support users’ activities, guided exploration, to enable users to investigate the app after the video was complete, entertainment, to ensure that viewers would be enthusiastic about the app, correspondence, to encourage alignment between audio and video, production, to focus attention on clear and easy-to-understand audio and video, and finally, error representation, to support continued guided exploration. Of this group of assessment criteria, error representation may seem like an unusual focus, though Van der Meij and Carroll (1998) consider it a key feature in minimal manual design. In order to follow their heuristic to “prevent mistakes whenever possible,” they encourage manual designers to signal action, minimize jargon, provide error information (especially when corrections are difficult), and offer error information that “supports detection, diagnosis, and correction” (p. 35-41). We focused on detailing error information in order to allow users to see the interface, become accustomed to navigation, focus on action, and enable guided exploration. Thus, the project asked students to include the explicit representation of error and recovery in their videos.

Because students developed the rubric based on their (and my) understanding of user manuals, we then put it to use, assessing whether current Web app videos were helpful in instructing and entertaining users. Table 1 shows one such completed rubric for Dropbox’s app video.

The group felt that the video was visually impressive, with clearly represented images and crisp, easy-to-understand audio that matched the visual content. Likewise, the group was impressed at the whimsical stop-motion papercraft techniques used by the video developers and appreciated the attention to generating interest through the use of a short, hypothetical narrative. Though the video did not show precise screen captures from the Dropbox interface, the group felt that the main interface concerns were well represented by the visuals, including logos, progress

<table>
<thead>
<tr>
<th>Assessment area</th>
<th>Excellent (4)</th>
<th>Good (3)</th>
<th>Fair (2)</th>
<th>Poor (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language use: did the video employ relatively clear, imperative-mood language directing users to perform specific actions?</td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Task orientation: how well did the video focus on tasks rather than features?</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action: did the video focus on actions users could take with the Web app?</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guided exploration: did the video offer enough information to allow users to explore the Web app?</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment: was the video entertaining, though not distracting?</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correspondence: how well did the video match up with the audio so as to show direct relations?</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production: was the video scalable and edited to include zooms and pans? Was the audio loud enough and easily understandable?</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error representation: how well did the video show an error and how to recover from that error?</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
bars, and folders. The group also felt that the rationale for why one might use Dropbox was explained clearly, though very little of the video was in imperative mood or concerned specific tasks. Language used in the video focused on features, though the video did not use much task-specific language. Finally, though the group felt that there was a little too much “whimsy” in the short video, they did believe that the hypothetical scenario explained in the video was helpful for potential users, especially as it primed them to understand how Dropbox functions. After this group of students employed the rubric to evaluate the video, they then created a Dropbox account and attempted to navigate the interface. Informal reporting of this experience proved positive, as students-turned-users explained they understood the general process of sharing files, though, as expected, they encountered some confusion when looking to upload files, share folders, and increase the capacity of their Dropbox account. Students recommended that some of the more entertaining details of the video could be removed and a simplified, task-based visual that shows how to use the basic Dropbox interface (consisting of “Upload,” “New Folder,” and “Share a Folder”) could be included.

Aside from this group’s specific analysis, 16 other groups of students also evaluated app videos through three courses. The averages are represented in Table 2.

The somewhat loose nature of this assessment is intentional, in part because the Web app video is only now emerging as a recognizable form. Of course, because of our uncertainty over precisely what form these videos could take, we left the categories of assessment as broader areas for analysis rather than specific point values. For example, while students were not entirely convinced that the Dropbox video was as instructionally sound as it could have been, many thought it would be successful in encouraging users to sign up for the application. A lack of positive assessment in this rubric does not mean a video is unsuccessful. Here, evaluation is understood as both a measure for assisting students working on Web app videos and a means by which we can identify opportunities for creating more task-oriented and user-focus in emergent genres.

Incorporating Minimalist Heuristics
After groups were formed around specific Web apps, I introduced the rationale for, and details surrounding, minimalist documentation. We began with a short introduction to the history of minimalist documentation and several readings about minimalism, including Farkas and Williams’ “John Carroll’s The Nürnberg Funnel and Minimalist Documentation” (1990) and Carroll and Van der Meij’s “Ten Misconceptions about Minimalism” (1996) as well as excerpts from Van der Meij and Carroll’s “Principles and Heuristics for Designing Minimalist Instruction” (1998) and Van der Meij’s “Goal-Oriented, Goal-Setting, and Goal-Driven Behavior in Minimalist User Instructions” (2007). These readings established the basics for minimal documentation design and aided students in the construction of scripts and storyboards for the videos they created. Other readings included a short excerpt from Lanham’s The Economics of Attention (2006) to introduce the assumed division between content and form in attention strategies. I also asked students to read Chisnell’s highly readable “Usability Testing Demystified” (2009) from A List Apart magazine before planning the short, informal usability tests they would perform during the project.

I focused groups’ attentions on Van der Meij and Carroll’s own minimalist documentation heuristics because they help technical communicators invent from basic tenets of minimalism rather than follow a set of explicit rules. These heuristics are adapted from Van der Meij and Carroll’s and an attempt to adhere to Lauer’s (1979) claims regarding heuristics, namely that they should be “neither a set of mechanical steps nor trial-and-error searches, [but] conscious operations that are useful in open-ended inquiry which seeks new meanings” (p. 268). From Lauer’s guidelines, these heuristics attempt to be transcendent and non-data-conditioned (“writers
can use [them] in a wide variety of writing situations”) (p. 268), yet highly generative. That is, they attempt to engage “the writer in a range of operations that have been identified as triggers of insight: visualizing, analogizing, classifying, defining, rearranging, and dividing” (p. 269). The following heuristics were utilized as invention and asked student to focus on:

1. Relevant language (how can you use language to build users’ knowledge?)
2. Task-orientation (how can you attend to the tasks users face?)
3. Expedient action (how can you help users act quickly with the software?)
4. Guided exploration (how can you help users feel confident to discover?)
5. Entertainment (how can you engage users’ excitement about their experience)
6. Correspondence (how can you use images and audio to help users’ comprehension?)
7. Improvisation (how can you give users room to think with the software?)
8. Error response (how can you support users’ error recognition and recovery?)

Perhaps themselves minimal, these heuristics helped focus students’ on the decisions necessary in order to develop user-directed ideas into useful minimal documentation.

Students made use of the abovementioned heuristics in several different ways. First, they focused on the main concept of minimalism in order to support “learner-directed activity and accomplishment” (Kearsley, 1994). Second, as students considered these heuristics, they developed a very informal usability test, working with three to four individuals not familiar with the Web app and performing a read-aloud exploration. One team member suggested and assisted the user through several tasks, while others recorded results and kept a running log. We performed usability testing, not to locate specific problems, but to better grasp possible user concerns with using the app. In his own usability testing in minimalist documentation scenarios, Johnson (1998) argues that “Involving actual users in design and development is one of the fundamental strengths of minimalism. Therefore, we [can] exploit this attribute of minimalism by taking our research questions to the intended users in the form of interviews, focus groups, and observation sessions” (p. 337). This limited research established a number of positions for the groups. They attempted to identify:

1. What new users did not know (which helped teams prioritize user information)
2. Where users experienced difficulty in completing tasks (which helped teams develop learning- and error-correction strategies)
3. What question types were most prevalent (which helped teams develop content areas for their videos)
4. What terminology was most confusing (which helped teams focus on specific language unique to the app)

This short usability research resulted in a more coherent picture of what users might desire from documentation and culminated in groups writing a short usability testing report that described the process of testing, the primary findings of the procedure, and the how the results were likely to affect documentation. Additionally, I asked students to write a short memo, focused on the imagined audience of the CEO of the Web app for which each group was creating a video. Asking students to write to this admittedly fictional audience allowed them to explain which heuristics they were employing, how those heuristics matched up to details they learned from their limited usability testing, and what video production elements in their storyboard resulted from the consideration of specific heuristics.

### Producing Web App Videos

While a schedule for the Web app video teaching project can be found in Appendix 1, it is useful to comment briefly on this stage. Preceding this portion of the project, I offered several short tutorials and directed specific groups to more information on their chosen methods of production. This phase was also dominated by group work, with students providing updates as they planned for and produced their video during one 20-minute group conference. Students made updates to the storyboard as they progressed, using it as a way to articulate their ongoing and changing intentions. Likewise, I considered the storyboard as a way to foreground audio and video production issues. For
recording sound and visuals, I stressed several lessons to avoid some common issues. Specifically, we covered:

1. The general use of digital cameras and video recorders
2. How to shoot video with sufficient lighting
3. How to record audio without echo or background noise
4. The general use of video- and audio-editing software (iMovie and Windows Live Movie Maker)
5. The general use of screen-capture and screen-casting software (Screenr and Jing)
6. Common problems in converting file types

Students reported some difficulties within each of these areas, as many found that recorded audio included too much background noise and had to be re-recorded in a new environment, or that video was too dark and required increased lighting. For students recording audio and shooting video for the first time, these issues were expected. However, groups worked through or around these issues, as they likewise did when converting file formats in moving from hardware to audio- or video-editing software. Because this project was completed in a technical communication course and did not ask students to be well versed in either audio or video editing, we intentionally limited the value of these aspects to the abovementioned rubric (see Table 1). Further, the entire project was completed within about five weeks, so as to mirror the rapid development cycle of Web apps themselves; in some cases, students were not happy with their own audio and video production results.

### Results

After groups had completed a full draft of their videos, they examined one other group’s video in detail, took notes, explored the Web app itself, and then completed the rubric for the video. While this evaluation was not completed for grading purposes, I believe it aided groups in self-evaluation and in receiving peer review on their soon-to-be-completed projects. Additionally, the result of 17 different group evaluations can be averaged to see which assessment categories showed improvement through an explicit attention to minimal heuristics. The averages are shown here in Table 3. Differences between student evaluation of professionally produced Web app videos (from Table 2), as well as statistical significance, are shown in Table 4.

Though it would be unfair to make too many conclusions from the aggregated results of these rubrics—specifically as the rubric was intended to

<table>
<thead>
<tr>
<th>Assessment area</th>
<th>Difference in mean between student assessment of existing and student-produced Web app videos</th>
<th>Statistical significant at p&lt;.05?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language use</td>
<td>+1.06</td>
<td>p&lt;.005*</td>
</tr>
<tr>
<td>Task orientation</td>
<td>+1.29</td>
<td>p&lt;.0001*</td>
</tr>
<tr>
<td>Guided exploration</td>
<td>+0.11</td>
<td>p=.43</td>
</tr>
<tr>
<td>Correspondence</td>
<td>-0.53</td>
<td>p=.06</td>
</tr>
<tr>
<td>Action</td>
<td>-0.29</td>
<td>p=.17</td>
</tr>
<tr>
<td>Entertainment</td>
<td>-0.17</td>
<td>p=.42</td>
</tr>
<tr>
<td>Production</td>
<td>-0.53</td>
<td>p&lt;.05*</td>
</tr>
<tr>
<td>Error Representation</td>
<td>+2.12</td>
<td>p&lt;.00005*</td>
</tr>
</tbody>
</table>

---

**Table 3. Student Assessments of Student-Produced Videos**

<table>
<thead>
<tr>
<th>Assessment area</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language use</td>
<td>3.35</td>
<td>0.79</td>
</tr>
<tr>
<td>Task orientation</td>
<td>3.47</td>
<td>0.52</td>
</tr>
<tr>
<td>Guided exploration</td>
<td>3.29</td>
<td>0.59</td>
</tr>
<tr>
<td>Correspondence</td>
<td>3.12</td>
<td>0.70</td>
</tr>
<tr>
<td>Action</td>
<td>3.06</td>
<td>0.56</td>
</tr>
<tr>
<td>Entertainment</td>
<td>3.24</td>
<td>0.75</td>
</tr>
<tr>
<td>Production</td>
<td>3.06</td>
<td>0.66</td>
</tr>
<tr>
<td>Error representation</td>
<td>3.24</td>
<td>0.83</td>
</tr>
</tbody>
</table>

---

**Table 4. Comparison of Web App Videos Based on Student Assessment**
Minimalist Approach to Instructional Videos

Figure 4. Student-Produced Web App Video

A Combination Fixed Video and Screenshot Video for the Application Grooveshark.

generalize features of the admittedly emergent Web app video form—we can recognize several trends. First, the increase for imperative mood language was significant, which can be attributed to increased attention to instruction manual language in the course’s previous assignment (the instruction manual). Second, students recognized a significant degree of attention to task orientation. This focus may be due to the minimalist heuristics offered above, as several address aiding users through the representation of contextual, realizable tasks, often by showing specific actions. Error representation also scored quite well, though this feature was stressed during class, because showing potential users how to recover from an error aids in helping them recognize conventions of the interface and improvise while engaging with the application. Conversely, student work scored lowest on issues of production, something that can certainly be understood when we consider that these videos were conceived, shot, and edited within a five-week time frame, using only small digital cameras and inexpensive audio- and video-editing software.

It may also prove useful to examine one specific student-produced video in detail. While several videos are listed in Appendix 2, the video student developed for Grooveshark (www.grooveshark.com), a Web-based radio service, is generally representative. This group chose to work with a fixed video form, though incorporated some elements from screencast videos: https://www.youtube.com/watch?v=NS-vAV9Kz-E (see Figure 4). The fixed video approach is apparent in their use of a small, centrally-located video pane, which allowed the actor to address features of the site while the site’s background changed to reflect ongoing instructions. The group addressed “Language Use” through the consistent use of specific terms that are found on the Grooveshark interface and “Task Orientation” through the employment of task-specific language representing steps rather than features. The group did represent some site features, most notably explaining the paid version toward the end of the video. This video, perhaps more than others, also helps users explore the site. While not a true screencast, it makes use of many different images of the app’s interface, allowing users to see screens, menus, and functions before exploring the app. The entertainment levels and production values for the video are understandably lower than professionally produced videos, though the actor is upbeat and energetic, the audio is relatively clear, and the correspondence of audio and video is good, if not precise. Finally, this video addresses minimalism’s attention to error representation in a relatively subtle way. Through the use of a task that revises a user’s song selection—indicated by the language “If you don’t like the previous option, click the “Popular” link on the left side of the screen, under “Smart Playlists.” It brings up the songs other users play most often”—the Web app video helps users recognize multiple options for action within the task. Many of the student-produced videos share similar traits to those reflected in Tables 3 and 4, in that they feature more specific, task-oriented language and moments of error recovery, though are less entertaining and expertly produced than existing Web app videos.

Conclusions

As for my primary research question, whether students are able to apply minimal principles and heuristics in the assessment and production of Web app videos, the results from this course project suggest that, yes, students were able to develop Web app videos with increased attention to minimalism and task-orientation. Paying more attention to users’ needs resulted in videos with a higher attention to instruction-specific language, actions, and error representation. The results of the rubric comparisons show students believe users would be more prepared to take on specific tasks within the app after viewing the video than those who view many
current Web app videos. However, these results must be tempered with the understanding that the rubric assessment method employed here was primarily meant as a method for students to understand their own use of minimalist heuristics and not as a defined, quantitative outcome. Further, though students completed roughly analogous pre-test surveys of Web app videos and post-test surveys of student-produced videos, the pre-text analysis included a wider range of videos than those students themselves completed for the course. That is, because students were completing videos while working in the same course, having similar discussions, and using a single evaluation rubric, the resultant videos would necessarily be more alike than those produced by numerous Web app developers. Yet, even though these findings are tentative, I believe minimalist documentation strategies offer unique methods for students to engage in emergent instructional genres, specifically short Web app videos.

As for the second research question, whether minimalist heuristics aid students in adapting to novel technical documentation situations, the answer is less easy to discern. Because students used heuristics rather than principles, though read about both, they were able to invent unique responses to the project. In reacting to a distinctive documentation situation, one that few students had heard of, much less were prepared to tackle, heuristics allowed them to respond to their specific situation. In creating the rubric, students applied assessment measures to their own, as well as other groups’, projects. Here I hoped to enable students to create new media documentation and understand the effects of the explicit use of minimalist documentation heuristics for short instructional videos. Throughout this project, I believe students grew to understand the value of heuristics in complex documentation situations, thus preparing them for future work. To some degree, this assumption proved valid, as recently a past student informed me that his first project for his new employer was to produce a Web app video. Though not as minimalist-specific as the videos we created during our class, the video he created employed principles we explored in the project. A draft of the video project can be found here:

https://www.youtube.com/watch?v=pVG5gk1IOlo.

References


Minimalist Approach to Instructional Videos


About the Author

Ehren Helmut Pflugfelder is an assistant professor at Oregon State University in the School of Writing, Literature, and Film. He teaches courses in technical, science, and business writing, new media theory and production, and writing pedagogy. His current research addresses the intersection of technical communication and mobility studies. Contact: ehren.pflugfelder@oregonstate.edu.

Manuscript received 15 March 2011; revised 18 March 2013; accepted 5 April 2013.
Appendix 1: Schedule for the Web App Video Teaching Project

The first stage of the Web app video project focused on students’ understanding of the video form itself. Most students were not familiar with the Web app video as a recognizable genre before looking for similarities between videos. Since I teach this project after students complete a more traditional instructional manual project, many of the readings and lessons that would correspond to instruction manuals are not shown here. Some of the smaller assignments within this project are designed to reinforce writing and design work students have experienced earlier in the semester (primarily work with messageboard posts, memos, and letters).

<table>
<thead>
<tr>
<th>Week</th>
<th>Classwork</th>
<th>Readings</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students identify Web apps that do not have associated videos and post their findings to a class messageboard. After reading the posts, students vote on the three most interesting Web apps and then form groups around that app by writing short application letters to the students who suggested the most popular apps. In class, we work to identify similarities between videos and create a rubric for Web app videos. Groups then apply that rubric to an existing Web app video. Class time is also devoted to considering implications from Lanham’s <em>The Economics of Attention</em> and discussing basics from Farkas and Williams’ article.</td>
<td>Short excerpt from the “Stuff and Fluff” chapter in Lanham’s <em>The Economics of Attention</em> (2006) Farkas and Williams’ “John Carroll’s <em>The Nurnberg Funnel</em> and Minimalist Documentation” (1990)</td>
<td>Message board post on Web app without video and one existing Web app video. Vote on the three most interesting Web app projects. Short application letter to the group originator.</td>
</tr>
<tr>
<td>2</td>
<td>Class time spent discussing readings on minimalism and understanding basics to usability testing. Class time also given to groups’ basic usability testing.</td>
<td>Chisnell’s “Usability Testing Demystified” (2009) <a href="http://www.alistapart.com/articles/usability-testing-demystified/">http://www.alistapart.com/articles/usability-testing-demystified/</a> Excerpt from Van der Meij’s “Goal-Orientation, Goal-Setting, and Goal-Driven Behavior in Minimalist User Instructions” (2007)</td>
<td>Memo to instructor regarding some ideas the group has for their Web app video.</td>
</tr>
<tr>
<td>3</td>
<td>Class time spent discussing minimalist heuristics and misconceptions about minimalism. Introduction of storyboarding template and technology options (and caveats) for Web app video: digital photography, digital video, audio recording hardware, audio and video editing software. Short tutorial offered on video and audio editing software.</td>
<td>Excerpt from Carroll and Van der Meij’s “Principles and Heuristics for Designing Minimalist Instruction” (1995) Carroll and Van der Meij’s “Ten Misconceptions about Minimalism” (1996)</td>
<td>Short usability testing report addressing what groups have learned about users’ reactions to their Web app. Memo to imagined audience of the Web app’s CEO concerning the group’s plan for the Web app video.</td>
</tr>
</tbody>
</table>

(continued on next page)
Minimalist Approach to Instructional Videos

(continued from last page)

<table>
<thead>
<tr>
<th>Week</th>
<th>Classwork</th>
<th>Readings</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Class time spent in group work and in conferences with instructor.</td>
<td></td>
<td>Storyboard of Web app video.</td>
</tr>
<tr>
<td></td>
<td>Short tutorials offered ad hoc for specific group issues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Class time spent in group work.</td>
<td></td>
<td>Draft of Web app video for critique.</td>
</tr>
<tr>
<td></td>
<td>Assessment of Web app video drafts by groups using abovementioned rubric.</td>
<td></td>
<td>Completed rubric for one draft and messageboard posts for all other drafts.</td>
</tr>
<tr>
<td></td>
<td>Class time spent discussing drafts and rubric evaluations of drafts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Class time spent preparing for the next project.</td>
<td></td>
<td>Completed project due on flash drive, including memo addressing group self-assessment.</td>
</tr>
</tbody>
</table>

Appendix 2: Listing of Student-Produced Videos

These links correspond to student-produced Web app videos:

- https://www.youtube.com/watch?v=jQQWK01Jiq0
- https://www.youtube.com/watch?v=_DX0oHEbI5o
- https://www.youtube.com/watch?v=_gTE1dhgKfk
- https://www.youtube.com/watch?v=BuAQKKJVEqU
- https://www.youtube.com/watch?v=NS-vAV9Kz-E
Books Reviewed in This Issue

Julie A. Jacko, ed.

Clear and Concise Communications for Scientists and Engineers 149
James G. Speight

Found in Translation: How Language Shapes Our Lives and Transforms the World 150
Nataly Kelly and Jost Zetzsche

Design by Nature: Using Universal Forms and Principles in Design 150
Maggie MacNab

Managing Corporate Social Responsibility: A Communication Approach 151
W. Timothy Coombs and Sherry J. Holladay

Mob Rule Learning: Camps, Unconferences, and Trashing the Talking Head 152
Michelle Boule

Essentials of MadCap Mimic 6 153
Neil Perlin

Distinctive Design: A Practical Guide to Creating a Useful, Beautiful Web 154
Alexander Dawson

APIs: A Strategy Guide 154
Daniel Jacobson, Greg Brail, and Dan Woods

Content Strategies at Work: Real-World Stories to Strengthen Every Interactive Project 155
Margot Bloomstein

Too Big to Know: Rethinking Knowledge Now That the Facts Aren’t the Facts, Experts Are Everywhere, and the Smartest Person in the Room Is the Room 156
David Weinberger

Type Navigator: The Independent Foundries Handbook 157
Jan Middendorp and TwoPoints.Net

Confluence, Tech Comm, Chocolate: A Wiki as Platform Extraordinaire for Technical Communication 158
Sarah Maddox

Several Short Sentences About Writing 158
Verlyn Klinkenborg

Marconi’s Wireless and the Rhetoric of a New Technology 159
Aaron A. Toscano

Wordplay and the Discourse of Video Games: Analyzing Words, Design, and Play 160
Christopher A. Paul

Information Need: A Theory Connecting Information Search to Knowledge Formation 160
Charles Cole

Quantifying the User Experience: Practical Statistics for User Research 161
Jeff Sauro and James R. Lewis

Thou Shall Not Use Comic Sans. 365 Graphic Design Sins and Virtues: A Designer’s Almanac of Dos and Don’ts 162
Sean Adams, Peter Dawson, John Foster, and Tony Seddon

The Insider’s Guide to Technical Writing 163
Krista Van Laan

Kim Dushinski

See What I Mean: How to Use Comics to Communicate Ideas 165
Kevin Cheng

Usability in Government Systems: User Experience Design for Citizens and Public Servants 165
Elizabeth Buie and Dianne Murray, eds.

Type Matters! 166
Jim Williams

WordPress 3 for Business Bloggers 167
Paul Thewlis

Design Elements: Color Fundamentals 168
Aaris Sherin

New Media and Intercultural Communication: Identity, Community and Politics 169
Pauline Hope Cheong, Judith N. Martin, and Leah Macfadyen, eds.

Writing Health Communication: An Evidence-Based Guide 170
Charles Abrahams and Marieke Kools, eds.

Data Representations, Transformations, and Statistics for Visual Reasoning 171
Ross Maciejewski

Presentation Secrets: Do What You Never Thought Possible with Your Presentations 171
Alexei Kapterev
The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications


When the third edition of The Human-Computer Interaction Handbook became available, I wondered how current it would be, and I was pleasantly surprised. Many bedrock chapters from the second edition have been retained and updated, and new chapters that cover advances in technology have been added. This review offers highlights of the 62 chapters.

The price makes the book particularly suitable for libraries. However, because the book is truly what it claims to be, “the single largest, most complete compilation of HCI theories, principles, advances, case studies, and more that exist within a single volume” (p. xvii), it also should attract teachers, graduate students, researchers, and practitioners. The book is international in scope, offering the work of 145 academic, industry, and government-agency authors from 14 countries. The nearly 7,000 references provide a substantial array of sources for curious readers.

The book is divided into seven parts that encompass a generous range of topics, beginning with the roles of humans (Part I) and of computers (Part II) in human-computer interaction, including such concerns as human information processing, visual and haptic displays, and the effects of ergonomics in the use of computers. Principles and practices of designing for HCI follows (Part III) in chapters that focus on human abilities, for instance, visual design and speech and language interfaces; and on the abilities of devices, for instance, multimedia, multimodal, and tangible interfaces. The book then explores (Part IV) design concerns for applications and domains, such as aerospace, games, and health care. Diversity is a critical issue (Part V), and chapters in this part of the book touch on such groups as children, older adults, low-literacy groups, and users who have difficulty seeing and hearing. The process of developing HCI approaches is explored (Part VI), from the basics of specifications and theories of design to prototyping and using personas and scenarios as tools for design. This part of the book also explores usability testing, various ways of evaluating HCI, and technology transfer. The final part of the book (Part VII) addresses what the editor calls “emerging phenomena in HCI” (p. 1341). Here such measures of cognitive load and stress as pupil dilation, heart rate, and eye tracking are covered, as are the potential uses of “HCI4D” or “HCI for Development,” a user-centered movement that concentrates on the use of technology, often for the improvement of living conditions, in developing countries (p. 1376).

New chapters of the book address the functions of HCI in currently prominent arenas, such as social media, e-commerce, and digital privacy and security. The grounded theory method of working with HCI data and technologies that enable collaboration are also covered in new chapters.

The Human-Computer Interaction Handbook is weighty in every way. It contains enough provocative ideas to keep legions of readers busy until the next edition appears.

Ann Jennings
Ann Jennings is a senior member of STC, the 2009 winner of STC’s Jay R. Gould award, and professor of English at University of Houston-Downtown, where she teaches in the BS and MS degree programs in professional writing. Her master’s students enjoyed using an earlier edition of The Human-Computer Interaction Handbook as one of their textbooks.
Clear and Concise Communications for Scientists and Engineers


Speight’s *Clear and Concise Communication for Scientists and Engineers* joins the list of books that recognize and address the communication problems that scientists, engineers, and technologists have. Speight, unlike others, covers most communication genre in 11 chapters.

One chapter is a microcosm of the problems in the book, which are that the suggestions are of a high level of abstraction, there is considerable repetition of material, and the book lacks specific examples that would support Speight’s generalizations. Chapter 6 on writing style addresses how the scientist/engineer should write the documents. But, just what is *style*? Speight tells us that style and format are closely intertwined so that selecting the proper format will automatically lead to proper style. Yet, he says, “For those situations in which no specified format exists, the writer should choose a professional format to follow that is appropriate for the situation” (p. 94) (emphasis added.) We are left not really knowing the basis of the choice and just what a professional format is. To further confuse matters, Speight later says, “Generally, style comprises structure, language, and illustrations (which all contribute to format)” (p. 96). He does cite two style manuals as sources for scientists and engineers: The Modern Language Association *Style Manual* and *Chicago* but does not cite *APA*, *ACS*, *CSE*, and other major manuals in the scientific and engineering disciplines.

Likewise, one would expect this chapter to define what he means by *clear*. The chief characteristic of *clarity*, he says, is short sentences that are “the key to an understandable document” (p. 101). For him, *short* means no more than three typed lines. Most would not consider sentences that could contain up to 30 words short. But he also adds the usual advice of one idea per paragraph and definitions for key terms. The effect is not convincing.

Speight includes material that most books do not. His Chapter 3, Sections 3.2 to 3.5, explain specifications for type, line spacing, margins, headings, visuals, and other design features. What is so unusual is why include such material? Journals frequently specify what the manuscript should look like and are not interested in authors imitating the published journal. Yet, he provides layout advice even though he points out that imitating journal design in a manuscript will “most of the time, irritate both the Editor and the reviewers and may encourage rejection” (p. 48). Companies, likewise, often have style manuals.

*Clear and Concise Communication for Scientists and Engineers* is a book that offers advice, often conflicting and repetitive, on how to communicate effectively. Yet, advice is all it does offer without examples or commentary telling us if the example is good or bad and why. This book can provide a framework for discussion in the tutorial, workshop, or classroom.

**Tom Warren**

Tom Warren is an STC Fellow, Jay R. Gould Award for Excellence recipient, and professor emeritus of English (technical writing) at Oklahoma State University, where he established the BA, MA, and PhD technical writing programs. Past president of INTECOM, he serves as guest professor at the University of Paderborn, Germany.
Found in Translation: How Language Shapes Our Lives and Transforms the World


As David Crystal says in the Foreword, “Few of us though, take our appreciation of the role of translation to the third level—really grasping how it influences the way we live.” Kelly and Zetzsche show, through the stories they include, how translation touches every aspect of life on this planet. Just as technical communication is so much a part of the infrastructure of life that we only notice it when it’s missing or poorly done, so too, is translation vital to life on this planet. Without it, we could not communicate with our peers who speak languages that are different from our own.

This criticality is demonstrated in the story of how a mistranslation of a 2009 Chinese news story about the appreciation of Chinese currency caused the world’s markets to drop significantly as traders scrambled to buy up Asian currency. The translation was corrected, yet the damage had already been done.

Translators and interpreters also keep the multi-country space station flying. While all the astronauts are required to have basic fluency in each other’s languages, interpreters and translators ensure that mission critical information is communicated accurately.

Other stories talk about the human relationship side of the industry. In one story, a young Jewish man who lost his entire family during the Holocaust was asked to interpret for the Nazis being tried in Nuremberg. He did his job and then never interpreted professionally again because of the toll it took on his psyche.

In another story, the interpreter for a couple in love found herself in an awkward situation when she realized that the couple did not understand the double meaning behind the words being spoken. After some back and forth, she was able to get the point across.

At Localization World a few weeks ago, someone commented, “Localization is the biggest industry that no one has ever heard about.” In Found in Translation, Kelly and Zetzsche state that the market for language services is more than US$31 billion annually, with just 50 companies accounting for nearly US$4 billion in revenue. According to a Common Sense Advisory survey mentioned in the book, 72.4% of consumers are more likely to buy a product if the documentation is in their own language and that this availability was more important than price. Such information has huge implications for companies that want to do business globally.

I will be adding this book to my recommended reading list for all my clients. Understanding the localization industry and the skills of the translators and interpreters we depend on is critical to effective globalization.

Katherine (Kit) Brown-Hoekstra
Katherine Brown-Hoekstra, of Comgenesis, LLC, is an Associate Fellow for STC, speaks at conferences worldwide, and has authored many articles on various topics related to technical communication and internationalization. She has a background in life sciences and 20+ years of experience. She also coauthored a book on managing virtual teams.

Design by Nature: Using Universal Forms and Principles in Design


Maggie MacNab invites readers, rather than challenges them, to learn to integrate nature into their lives to become great designers. This is truly about design, and how nature is the ultimate designer. As MacNab shows, good design by humans builds upon nature itself by creating a textbook that is truly enjoyable for its own sake. You might consider keeping it handy as a reference book as well.

I was first intrigued about reading the book because of MacNab’s background, and the way she’s always integrated nature into her life in New Mexico, where she
has lived her entire life. She introduces striking natural design elements that she grew up with.

MacNab’s examples and exercises ask you to go outside and appreciate nature to create projects at the end of each chapter. This is a change from designers whose examples are mainly from metropolitan areas. The appreciation exercises are so universal that you can use them in college art classes, the target audience, as well as building nature appreciation with grandchildren.

MacNab puts the first three chapters into a section she titles “Memory: Remembering What We Know.” She asks the reader first to look at the way nature solves design problems, by looking up close and very far away. Use the 12 Design Principles from Nature (pp. 69–71) to inspire you and ensure that your design is on track, and is about the design process more than how to draw lines and shapes.

Once we’ve begun to relax enough to appreciate nature again, MacNab shows us the basics of design in the second section, titled “Matter: Understand and Create.” “Patterns: Nature’s Dynamics,” the first chapter, are “energy visualized.” Next, we can appreciate the “Shapes: Nature’s Vocabulary” chapter and then the chapter, “Elements: Nature’s Sensuality,” which explores color.

Section Three, “Motion: The Experience Enhanced,” moves us into using the knowledge we’ve gained to communicate. In “Structure” Building Beauty,” the first chapter, MacNab explains Gestalt. She then shows three types of symmetry: translation, reflection, and rotation in their own chapters. “Messaging: A Meaningful Medium,” the last chapter, invites readers to communicate using sophisticated shapes and visual metaphors, as is done in nature. This culminates the subtle build from appreciating to communicating in complex visual ways.

MacNab puts much thought into the case studies, so they’re relevant and from a range of designers, and includes sketches as well as finished products. She shows the progression a designer uses in logo design. Page layout is effective at combining dense information without seeming crowded. Illustrations and photos are often rich close-ups from nature, which require the reader to make connections from nature to communicating with audiences. Page headers orient readers easily. Even the credits and index are robust and useful!

Beth Lisberg Najberg
Beth Lisberg Najberg has more than 25 years’ experience as an information and instructional design consultant, documenting systems, developing custom training solutions, and creating technical presentations for large corporations and public entities. She is principal of Beginnings (www.BeginningsDesign.com), an information design consulting firm.

Managing Corporate Social Responsibility: A Communication Approach


In Managing Corporate Social Responsibility: A Communication Approach, W. Timothy Coombs and Sherry J. Holladay provide an excellent overview of the concept of corporate social responsibility (CSR) for practitioners and students alike.

The book’s early chapters focus on introducing the CSR concept. Although the authors note that CSR is still in its formative stages, they offer this definition in an attempt to standardize discussion of the process: “CSR is the voluntary actions that a corporation implements as it pursues its mission and fulfills its perceived obligations to stakeholders, including employees, communities, the environment, and society as a whole” (p. 8). Perhaps the most important information the authors offer in these early chapters is a section on strategies for selling the importance of CSR to upper management and other stakeholders. These strategies, particularly the cost-benefit analysis, help communicators put the argument in terms that bottom-line-oriented audiences will appreciate.

The middle section of the book walks the reader through the process of developing CSR initiatives. Many of the stages in this process—researching audience expectations, drafting the initiatives, testing the initiatives with audiences—will be familiar to practitioners, particularly those who already focus on
issues management or risk and crisis communication. However, Coombs and Holladay are careful to note the ways in which the CSR process is distinct from many other communicative processes.

A major strength of *Managing Corporate Social Responsibility* is that it offers frequent practical applications of the CSR concept besides its basis in theory. For example, Chapter 5, Create the CSR Initiative, includes an extensive list of questions to answer before a company develops a CSR initiative. Furthermore, ample, extended case studies of CSR initiatives address the potential impacts of CSR on corporations and their stakeholders. These case studies focus on companies well known for their community-based programs, such as Ben & Jerry’s, as well as smaller, lesser-known companies that have successfully implemented CSR initiatives.

Finally, Coombs and Holladay painstakingly address different types of “-washing,” such as greenwashing and pinkwashing, which can damage stakeholder trust. As recent coverage of the Susan G. Komen Foundation’s funding and communication practices suggests, mishandled CSR can significantly diminish even a widely well-regarded organization’s reputation. CSR is thus a practice that demands careful, reflective attention, and Coombs and Holladay’s *Managing Corporate Responsibility* can help communicators succeed in this practice.

**Ashley Patriarca**

Ashley Patriarca is a doctoral candidate in Rhetoric and Writing at Virginia Tech. She earned her master’s degree in English (technical and professional writing) at the University of North Carolina at Charlotte, where she also worked in the Department of Enrollment Management as a technical writer.

---

**Mob Rule Learning: Camps, Unconferences, and Trashing the Talking Head**


Michelle Boule, in *Mob Rule Learning: Camps, Unconferences, and Trashing the Talking Head*, offers a post-structuralist approach to conferences and learning. The book’s premise is that traditional conferences are failing the expectations of the institutions that run them and the needs of the participants. The current model positions talking heads, empowered by PowerPoint presentations and pre-fabricated agendas, as the center to adult learning. Boule asserts that what is needed is a fresh approach that wrests power from outdated structures of false authority and puts freedom into the participants’ hands. At the tactical level, this occurs in products such as “camps” and “unconferences,” which results in “mob rule learning.”

Boule presents tools to help readers develop their own events and to infuse their organizations with a mob learning ethos. While she introduces case studies of successful trials, interviews with learning innovators, and point-by-point explanations of various techniques, the sections I found useful were the principles of mob learning, in-depth views of different “unconferences,” and the use of facilitation methods.

Boule explains one root of mob rule learning being Open Space Technology (OST), where “technology” refers to anthropological dynamics rather than computer systems. In OST, the principles are freedom around participants, outcomes, and timing. Whoever shows up are the right participants; whatever happens is meant to happen; and when it starts and ends is when it starts and ends. Now compare this to planning a typical conference: the time spent getting the attendee list right and deliberating over who should attend based on the session objectives; the stress in directing discussions; and the effort spent in corralling people to start and end on time. OST provides a framework that frees everyone from these constraints and allows one to use his or her own inherent brain power and creativity to deliver better results.
Boule also provides multiple case studies and examples of types of “unconferences” and “mob learning” events, such as Foo Camp, the ALA Unconference, and Mashup Camp. These eased my skepticism by providing a context of the ideal conditions for mob learning. Personally, I find it useful to understand how and why other people have tried new approaches.

Finally, Boule’s facilitation techniques section was immensely valuable. As a communications professional, I often facilitate workshops, brainstorming sessions, and meetings where I have used many facilitation methods. I’ll be putting several of Boule’s techniques into use in the future.

Boule ends *Mob Rule Learning* by suggesting that learning needs to shift from its current authority-centric model to a decentralized model where the power/authority resides with the participants. I’m not sure this is a new idea; in fact, thinkers like Foucault, Derrida, and Wittgenstein readily come to mind. What is new about Boule’s book is that it offers a practical way to implement post-modern tools in today’s workplace without getting mired in esoteric theory.

Gary Hernandez
Gary Hernandez is a communications director for BP. He received his English literature MA from George Mason University and received his technical writing MS from Utah State University. Gary belongs to STC and IABC.

### Essentials of MadCap Mimic 6

Looks good and tastes even better! Upon receiving Neil Perlin’s *Essentials of MadCap Mimic 6*, my apparently attention-starved miniature schnauzer decided to do his own book review—by shredding the outside covers and preface. Amazingly enough, he stopped at Chapter 1.

Knowing the intended audience is a good place to start with my review. As I read the first few chapters, I felt like I was getting a review of my undergraduate studies in technical communication. Perlin does a great job of skimming the waters of instructional design and explaining to a newbie what ADDIE (Analyze, Develop, Design, Implement, Evaluate) is and how it can help you create a well-rounded project. Someone who is starting out in the field or someone who is not familiar with basic instructional design concepts will greatly benefit from this information.

If you like to think of yourself as more of an expert, don’t get frustrated—skip ahead! No one is watching you...

As an experienced Adobe Captivate user, learning more about MadCap’s Mimic intrigued me. In addition, as I learned more and more about their similarities, I knew I had to try it out. While reading this book, I decided to download the 30-day trial version to accompany me as I read the book. I like to try things on my own, and with job descriptions including the latest software to know, this would only help me out later!

From the beginning, the software was intuitive, yet I kept Perlin’s book by my side to continue my review as I learned the software. The most rewarding bonus was how Perlin not only explained the step-by-step instruction, but also WHY the step was important and the intended function. Sometimes it is nice to know why you have to do something! I also really appreciated the seasoned tips throughout the instructions, such as selecting contrasting colors for box displays to help them stand out more. These tips can be no-brainers to someone doing this 24/7, but it served as a good reminder for those who don’t necessarily design every day.

Overall, this is an easy-to-read companion guide to MadCap Mimic and I think anyone looking to beef up his or her skills, or even learn a new skill, would greatly benefit from the book.

Kristin Kirkham-Broadhead
Kristin Kirkham-Broadhead is an instructional designer and technical writer from Dallas, TX. She previously served the STC North Texas Lone Star Community as president from 2009–2010. When she is not writing, she loves scrapbooking and photography.
Distinctive Design: A Practical Guide to Creating a Useful, Beautiful Web


Alexander Dawson’s *Distinctive Design: A Practical Guide to Creating a Useful, Beautiful Web* targets Web designers with basic coding knowledge but little knowledge of information design, graphic design, and usability. Overall, Dawson’s emphasis on user-centered design is commendable, yet the book would be more useful if it offered the reader more practical, substantive advice.

Dawson uses the phrase “distinctive design” throughout the book, though he never thoroughly defines the term. The closest he comes to a definition occurs when he writes that “distinctive design is simply about making things stand out and controlling the attention parts of a page receive” (p. xviii). Dawson approaches this goal from a variety of angles, including information design and design psychology. These various angles are reflected in the five main divisions of the book: “Designing for the Web,” “The Art of Distinctive Documentation,” “Implementing Design Theory,” “User-Centered Considerations,” and “Designing for Ubiquitous Users.”

All Dawson’s advice revolves around an implicit thesis: use every tool at your disposal to draw attention to the most important elements and information on your Web site. Users come to a Web site seeking information or services, and if they become frustrated by bad design or distracted by unnecessary elements, they will move on to the next site. Successful design must hold user attention by providing well-organized, appropriately emphasized content.

One of the most practical portions of the book is Dawson’s discussion in Chapter 2, “Designing for Different Devices.” In this chapter, he stresses the need for designers to consider the increasing number of environments in which their designs may appear. Dawson examines software and hardware that will impact the user’s experience, and offers concrete advice for accommodating the wide range of users’ software and hardware choices. He recommends testing the site with different browsers and devices to ensure it appears properly. Dawson also suggests layering content so that if the user fails to have the right plug-in, there will still be a minimal amount of usable content on the page.

Dawson’s underlying thesis is admirable: useful, organized content is more important than stylistic frills. That principle applies to many tasks that technical communicators face. However, *Distinctive Design* is not completely successful because Dawson sometimes ignores his own advice. The pages are rife with distracting parenthetical asides, copyediting oversights, and a number of unnecessary visuals and “call to action” text boxes that draw attention away from more important content.

I would recommend *Distinctive Design* to a technical communicator who has been thrust into the role of Web site designer and has some basic knowledge of coding languages. A novice technical communicator might find the overview of information design and usability helpful. Yet for other readers in the technical communication field, a specialized book on one of the various topics will likely prove more useful.

Bonnie J. Shamp Winstel

Bonnie J. Shamp Winstel is a graduate student studying English and technical communication at the University of Alabama-Huntsville. She is new to the field of technical communication and recently joined STC as a student member.

APIs: A Strategy Guide


*APIs: A Strategy Guide*, by Daniel Jacobson, Greg Brail, and Dan Woods, provides high-level information for managers who are deciding if implementing an application programming interface (API) is a good choice for their company. This book is not intended for readers who are interested in the technical aspects of API design and implementation.

The authors describe how adopting an API is a valuable business strategy and list examples of reasons
why you might need an API: you need to develop a mobile application for other platforms or you have data that others could use (weather data, public transit timetables and schedules). The API value chain defines who publishes and promotes the API, who is expected to use it, what information is provided through the API, what types of applications the API supports, and who uses these applications. You should involve key stakeholders from across your company in defining your API strategy. For the two different types of APIs (public and private), the authors explain the benefits and risks of publishing one or both, ways to use each type, and how to shift from one type to the other. They recommend that you prepare to address any questions or objections that others might have. Some examples include an increased load on systems, security threats, and misuse of content.

After you have defined your API strategy, you can put together the roles for an API team. These roles include a developer evangelist, product manager, community manager, engineers, quality assurance, marketing, and legal. APIs have two main audiences: the developers who use the API and the end users who use the applications created using the API. It can be challenging to design the API to meet the needs of both audiences, and which the authors provide some examples of concerns for both audiences. They also list several best practices for designing APIs, including making your API easy-to-use and understand, and starting with a minimum amount of functionality, adding additional functionality over time, based on feedback. A section on technical design issues introduces the various forms of Representational State Transfer (REST), issues regarding API versioning, and considerations for infrastructure (data center or cloud).

The authors highlight specific security issues for API design and operation, including authentication, encryption, and threat detection and prevention, and describe legal considerations for developing your API. They stress the importance of defining a reliable operating model for the API that includes operations issues, support, documentation, and traffic management and scalability. They also discuss the importance of metrics for gauging the success and use of the API, and the importance of evangelizing and marketing your API so that developers want to use it.

*APIs: A Strategy Guide* helps readers understand the value that an API can bring to a business, the steps required to define your API strategy, and the importance of involving both technical and non-technical stakeholders in the planning and implementation.

**Mary C. Borden**

Mary C. Borden is a senior technical writer with F5 Networks, where she writes hardware documentation. She belongs to Sigma Tau Chi and received a professional and technical writing MA from the University of Arkansas at Little Rock.

**Content Strategies at Work:**

**Real-World Stories to Strengthen Every Interactive Project**


Margot Bloomstein highlights the benefits of content strategy for businesses in her book, *Content Strategies at Work*. With 164 pages of real-world stories, she explores the many faces of content strategy, big and small. Bloomstein covers a variety of outlets for content strategy use, such as design, project management and information architecture, copywriting, search engine optimization, and social media. She uses a witty, fun tone throughout the book, going so far as referring to the reader with pet names such as “Buttercup,” making it entertaining and informative (or borderline annoying if you’re touchy about cutesy tones).

This book focuses on strategizing content for endeavors of any size. Bloomstein defines content strategy as ensuring content types, tone, and media support the user experience in a way that is appropriate to the brand and useful to the audience. She argues that lack of a content strategy is a problem for organizations, and that companies, even mom and pop businesses, need a plan for ongoing maintenance and sustainable growth.

I find it difficult to differentiate between a strategy and a plan as defined by Bloomstein (there seems to be only minor differences); however, it’s easy to understand content strategy in the context of the examples presented. Bloomstein makes it seem easy, perhaps a little too easy. I’d argue Bloomstein talks
herself (and content strategists everywhere) out of a job by simplifying the art of strategizing content to the Neanderthal level. Companies may only push this idea of strategizing content on a veteran employee rather than hire in a specialist or firm. Although Bloomstein does successfully emphasize content is an asset, her idea of a strategy is a bit of a hard sell because it seems redundant when many companies may already have a plan in place.

This book is filled with easy-to-use models and examples from many different resources. The chapters are cohesive and easy to understand, and the book flows from one type of strategy to another. However, this isn’t necessarily a “how-to” for content strategy. There aren’t any steps to follow—with the exception of setting up message architecture—and the answers to content strategy questions seem to start with, “It depends.” Bloomstein explores different strategies for different situations, but there isn’t one concrete way to strategize content that applies to all types of content. Content strategy is presented as a craft that must be acquired through a lot of practice.

Content Strategies at Work is useful as a supplement for anyone who is knowledgeable or has a personal interest in content strategy. However, I would encourage readers to pursue other sources if they want in-depth information on content strategy. This book provides only a quick overview of content strategy and its many uses in the workplace, but Bloomstein makes it easy to understand with a light, fun tone.

Kristyna Selph
Kristyna Selph is a technical communication rookie. She is pursuing her masters at the University of Alabama-Huntsville with an emphasis in technical communication and looks forward to delving into the wonderful world of technical writing.

Too Big to Know: Rethinking Knowledge Now That the Facts Aren’t the Facts, Experts Are Everywhere, and the Smartest Person in the Room Is the Room

In Too Big to Know, David Weinberger (a senior research at Harvard University’s Berkman Center for Internet and Society) grapples with the profound changes that the advent of the online networked world is having not just on the amount, or availability of knowledge, but on the nature of knowledge itself. “Knowledge,” he argues, “is becoming inextricable from—literally unthinkable without—the network that enables it. Our task is to learn how to build…networks that make us smarter, especially since, when done badly, networks can make us distressingly stupider” (p. xiii).

In developing his argument, Weinberger traces the history of knowledge and mankind’s attempts to ratchet up the standards for achieving certainty. Briefly stated, about the time of Plato 2500 years ago, we began to search for ways to distinguish mere opinions from knowledge or ideas that we could rely upon. We began to subject ideas to forms of testing, verification, or proof. We also established mechanisms designed to identify some individuals or sources of information as more reliable than others did: higher education, credentialing, election to prestigious bodies, publication in peer reviewed journals, and so on.

The advent of printing also played an important role. It aided the dissemination of knowledge, but also, through a process of filtering, it worked to shape the body of knowledge itself. In a paper-based world, the mechanics and expense of publishing tend to filter out most claims. Whatever does not get published vanishes from sight regardless of its merit.

With the rise of the Internet and networked information, this all changed. The online world does not filter out, but filters forward. Various sorting algorithms push the most cited, liked, or agreed with information ahead of the rest; but what fails to bubble to the top
never really vanishes. On top of that, more information is
being gathered, stored, and linked than any human could
process, and we need better ways to harvest this bounty.
We have moved from knowing too little to being in a
world that is “far, far too big to know” (p. xiv).

Weinberger closes by turning his attention to ways
we can help “make the networking of knowledge the
blessing it should be” (p. 183). He calls for building a new
infrastructure for knowledge, one that includes opening
up access, building better hooks for knowledge such as the
Semantic web, and linking everything using metadata. It
will also be important to not leave traditional institutional
knowledge behind; it has served us well. And, we must
teach everyone to use the new systems.

Too Big to Know is a fascinating and important book;
it deserves all the attention it can get.

Patrick Lufkin
Patrick Lufkin is an STC Associate Fellow with experience in
computer documentation, newsletter production, and public
relations. He reads widely in science, history, and current
affairs, as well as on writing and editing. He chairs the Gordon
Scholarship for technical communication and co-chairs the
Northern California technical communication competition.

Type Navigator: The Independent
Foundries Handbook
[ISBN 978-3-89955-377-2. 320 pages. US$78.00.]

With new foundries popping up
each day adding to the already
huge variety of available typefaces,
it can sometimes be a daunting
task to find just the right font.
Enter Type Navigator: The
Independent Foundries Handbook.
Its pages hold a sample of this
large market with examples of
typefaces from some smaller
independent foundries, comprised of not more than a
handful of typeface designers. The reason for showcasing
independent foundries is “many of the newly-established
“foundries” are one- or two-person companies, and offer
just a small collection” (p. 4). The far better distribution
afforded by the Internet has made possible the survival of
smaller outfits like the ones featured in Type Navigator.

The foundries are arranged alphabetically with each
section containing a short biography of the foundry
and its designers, where to find their typefaces online,
and examples of their fonts. There are photos of where
typefaces have been used for actual projects and the rest
of each foundry’s entry is dedicated to samples of their
typefaces printed at different sizes and leading. What is
nice about this approach, and what I see as one of the
book’s greatest strengths, is that for each font, readers
can see what it will look like on a printed page using
nearly the complete character set.

On the other hand, this strength is also a weakness.
The introduction seems to be directed to the casual
user or beginner, including such information as the
current popularity of the right typeface, where to find
and purchase fonts, and how to understand end user
license agreements. Everything after the introduction,
though, seems directed to readers who know what they
are looking at and why they are looking at it. Someone
familiar to designing for print would more than likely
understand that the experience of viewing fonts on a
computer screen is much different than seeing those
same fonts on a physical page and thus the importance
of seeing a typeface in print.

In my opinion, it is not really for those new to
typography, despite the introduction. That said, Type
Navigator is a fantastic resource even with only a fraction
of the literally hundreds of foundries operating around
the globe. It is a good sampling of what is available in
the way of top quality typefaces and especially useful in
how each font is displayed. The CD at the back of the
book is the cherry on top as it contains 100 free fonts
contributed by some of the foundries featured in Type
Navigator. After reading about the foundries and seeing
examples, readers can use some of the fonts for their
own projects.

Spencer Gee
Spencer Gee holds a Master’s degree in composition and
rhetoric and teaches Freshman Composition at the University
of Central Oklahoma. He also is working toward a degree in
graphic design.
**Confluence, Tech Comm, Chocolate: A Wiki as Platform Extraordinaire for Technical Communication**


Confluence Wiki users should rejoice as *Confluence, Tech Comm, Chocolate* provides them with a great deal of useful information with a light, fun tone, and great enthusiasm from the author.

Comprehensive and thorough—these words come to mind when reading *Confluence, Tech Comm, Chocolate*. Confluence Wiki users can read this book to get tips to help their organization work from this Confluence Wiki central platform and become power users.

Whimsical is another word that comes to mind when reading the book. While the overall main topic concerns how-to information, the tone is light and fun, thus chocolate in the title and throughout the book. The book comes from a company—Atlassian—that has a reputation of caring about good documentation and good communication.

Besides tips and tricks concerning the use of Confluence Wiki, the book covers information about topics such as good communication and agile.

One agile tip, “Keep the contributions short at the standups. Just report on work done yesterday, the work planned for today, and any problems that are hindering the work” (p. 290).

**Jeanette Evans**

Jeanette Evans has more than 15 years in the field. An STC Associate Fellow, she is active in the NEO STC chapter where she serves as academic relations co-chair and newsletter co-editor. She has published in Intercom and presented at various STC functions. She holds an MS in technical communication management from Mercer University.

---

**Several Short Sentences About Writing**


If you are looking for advice on writing that is not specifically meant for technical communicators, there are the obvious classics: *The Elements of Style* and *On Writing Well*. There are also books by famous writers, such as Stephen King’s *On Writing: A Memoir of the Craft* and Ray Bradbury’s *Zen in the Art of Writing*. More recently, there is a new group of books including *It Was the Best of Sentences, It Was the Worst of Sentences* and *How to Write a Sentence: And How to Read One*. Add one more to the list that was published last year: *Several Short Sentences About Writing*.

*Several Short Sentences About Writing* is literally what the book is, for the first 150 pages, after a short prologue. Early on in the book, there is frequently a noticeable question-and-answer format. Examples: Why short sentences? (“Short sentences make it easier to examine the properties of the sentence” (p. 9)), How short is short? (“That depends on the length of the sentences you’re used to writing” (p. 11)), and Why are we talking about sentences? (“Your job as a writer is making sentences” (p. 13)).

The book contains no standard book conventions (table of contents, chapters, and index); just lots of commentary from Klinkenborg and experiments to try. The last 50 pages are clearly organized with two headings: “Some Prose and Some Questions” (passages by established writers to experiment with as you read the book) and “Some Practical Problems” (sentences written by college students with Klinkenborg’s observations).

The experiments are extremely time-consuming. One of the major ones starts by asking you to copy or print out a couple of pages by an author whose work you like. You are told to use separate colors of pencils to circle parts of speech. This is followed by a circling on a separate copy the more difficult parts of speech. Then perform the same experiment with an author whose work has a different feel. Finally, try again with a page from a very different context (“A business article or a best seller or a critical essay in an academic journal” (p. 63)]. There are specific suggested examples mentioned...
Marconi’s Wireless and the Rhetoric of a New Technology

Aaron Toscano shuns a minimalist view of the technical communication (TC) field—or the idea that most, if not all, TC is produced purely for pragmatic reasons and designed merely for users’ instruction. In Marconi’s Wireless and the Rhetoric of a New Technology, Toscano certainly does everything he can to demolish that idea. In this fairly easy read for a scholarly treatise, he expands the broader context of TC to an extent rarely attempted, or perhaps even fathomed, by other scholars.

In this book, Toscano thoroughly analyzes the diverse types of discourse that accompanied the emergence of wireless technology (precursor of the radio, created by the Anglo-Italian inventor Guglielmo Marconi) in an attempt to support an intriguing proposition: not only is all communication regarding technology—even the more consumerist science and technology narratives found in mass media—rightly considered TC; but all TC is inseparable from the culture it informs and by which it is informed. He begins buttressing this view with a particularly fascinating history of TC. (He skillfully portrays how TC and its aficionados over the centuries strategically mirrored various cultural trends from the religiosity of the society during the Enlightenment, to the plain language movement that followed, and on to the modernist movement that introduced the 20th century.) He then further supports his framework with an in-depth analysis of the many concurrent forces—technological, societal, and rhetorical—which led to society’s acceptance and assimilation of the revolutionary wireless technology; and how Marconi and his adherents harnessed these forces to produce the TC of those early 20th century years.

This is actually a big idea Toscano puts forward—that TC is all around us, in the narratives about technology and its effects on us, and not confined to the pedestrian documentation that typically accompanies manufactured products. Of course, the implication of this expansive view of the field is that TC is as ubiquitous (and voluminous) as the technologies it accompanies.

Toscano definitely illuminates for the reader a culturally based heritage of the field, which may have been camouflaged by the field’s more obvious relationship to the specialized and mechanistic worlds of science and technology. But he goes beyond this, to allege that the pedagogy and research in the field have largely overlooked a vast repository of technologically centered discourse. Toscano posits that TC should assume its rightful place as a leader in a field of inquiry that science and technology studies (known as STS) have reserved to itself for far too long. His tone is almost evangelistic, but his arguments are both lucid and reasonable.

Marconi’s Wireless and the Rhetoric of a New Technology is a good read for anyone interested in how technologies impact human societies and, conversely, how human societies—influencers of the rhetoric of TC—impact trajectories of technologies. It unmistakably offers technical communicators a broader context for understanding their discipline.

Steve Lemanski
Steve Lemanski, an STC member and a 20-year professional communicator in the IT field, regularly alternates writing/editing in several genres—technical documentation, feature articles, and marketing content. His BA in communication is from University of Colorado, Boulder; and he is currently pursuing an MS in English/technical writing from Utah State University.
**Wordplay and the Discourse of Video Games: Analyzing Words, Design, and Play**


What promises to be a rhetorical and critical analysis of video games ends up being an exploration of several games, their game play, and their marketing strategies. Paul begins by defining wordplay as the use of “the tools of rhetorical criticism to examine the various elements of games, from the words found within and around them to the design, play, and coding of them” (p. 2).

He argues that wordplay informs our understanding of the significance of games and it helps us “understand the discourse of games” (p. 3). Yet his definition and application of the term shift throughout the text.

While *Wordplay and the Discourse of Video Games* successfully summarizes gameplay in several games and presents a history of some game technologies, the book tends to make claims and illustrate them, but only weakly analyze them. For example, in one of the more interesting chapters—on the game, Grand Theft Auto (GTA)—Paul writes that to “understand games as texts” and see violence in video games like GTA as a “game mechanic,” we need to “investigate the whole response to GTA” (p. 87). Furthermore, to “understand why GTA is so interesting,” we need to look at the role of humor in the game, the controversy of the game (because of its violence), and how reviewers demonstrate the players’ focus on game play rather than on game violence. What is “the whole response”? Why is GTA “interesting” in this context? (p. 88).

Without further clarification, Paul moves on to polarize the humor as either appreciated by players or misunderstood by “those who just do not get the joke” (p. 88). He writes less than a page of rhetorical analysis on the humor and its function in the game. When Paul moves to the controversy of the game, he again tends to claim and illustrate without further analysis by saying, “dissonance…in discourse…offers a platform upon which to engage in critical analysis” (p. 91). He further writes that to see the focal point in GTA is not violence, we must know that players like the detailed game design and players identify with the characters. Paul cites the paucity of references to violence in the game reviews, he points out the awards and acclaims the games received, and he writes that game immersion experience draws in players, but he doesn’t take the next steps of explaining how these elements work to expand our understanding of gaming/game studies.

**Kelly A. Harrison**

Kelly A. Harrison, MFA, works as a consultant, speaker, and writing instructor in San José, CA. For over 20 years, she has written print and online content for various high-tech computer companies. Currently, she teaches writing at San José State University and contracts for computer software.

**Information Need: A Theory Connecting Information Search to Knowledge Formation**


For some time, technical communicators have analyzed who will use their material. Such user analysis has evolved from demographic data and focus groups to individual user analysis. Techniques have moved from guesswork and surveys to speculation about the user’s cognitive processes.

Recently, user analysis has turned toward studying in more detail what the user wants to know. Research from information science has enabled technical communicators to examine that need. For example, information behavior researchers have examined user reaction to both an information system and the results such a system produces.

Charles Cole’s *Information Need: A Theory Connecting Information Search to Knowledge Formation* continues in this research tradition by focusing on the user’s need for information. Information need, according to Cole, is the “start state for someone seeking information” (p. 3). In examining this need, he divides
the 19 chapters into 4 parts: Part I defines information need and presents historical background; Part II presents the conscious aspects of information need; Part III provides an extended example of a student essay; and Part IV concludes the work.

Cole begins his behavioristic approach by suggesting that the user’s subconscious perceptions of reality are based on schema or frames modeled on four levels ranging from subconscious receipt of an environmental stimulus to the conscious developing of a query. Searching for information begins with something that triggers the user’s subconscious to recognize that the frame for the stimulus is inadequate or missing. This subconscious recognition leads to a conscious description of the need.

Cole then turns to the research and contrasts computer science views with those of information science. He does this by identifying three stages: Pre-Focus, where the user forms queries for the information system; Focus, where the user queries the information system and gets results; and Post-Focus, where the user responds to the results.

In computer science, Cole asserts, the process is straight-line because the user “commands” a response. In information science, the user adjusts the search based on the results from the information system. Thus, the computer science approach is based on horizontal phases while the information science approach uses a hierarchical approach.

So what is the book’s value for technical communicators? If the user’s need for information is precisely formulated, then Cole’s theory has minimal value. If that information need is strong, then the book offers insights into how the user can be accommodated. For graduate students and technical communicators who want or need to explore how users develop and respond to the search, the book can be a valuable addition to a personal library.

One caution, however: Cole has written a scholarly book both in its style and in the abundance of references. Ultimately, the book is most valuable to those who design information systems and want a research-based way to analyze potential users.

Tom Warren
Tom Warren is an STC Fellow, Jay R. Gould Award for Excellence recipient, and professor emeritus of English (technical writing) at Oklahoma State University, where he established the BA, MA, and PhD technical writing programs. Past president of INTECOM, he serves as guest professor at the University of Paderborn, Germany.

Quantifying the User Experience: Practical Statistics for User Research
Jeff Sauro and James R. Lewis. 2012. Waltham, MA: Morgan Kaufmann. [ISBN 978-0-12-384968-7. 296 pages, including index. US$49.95 (softcover).]

When I first started conducting user research, I found that few of my colleagues conducted anything other than qualitative research. As more companies use user experience (UX) research in their processes to build software and Web sites, more want to better understand the return on investment. They want DATA.

Quantifying the User Experience: Practical Statistics for User Research by Sauro and Lewis is the newest book that teaches UX researchers and social science researchers how to respond and use numbers to make a quantitative case. Had I had this book several years ago, I might not have pursued a graduate certificate in Applied Statistics, since this book really covers most of the topics I sought to understand.

Sauro and Lewis take the user researcher on the journey of conducting and reporting on UX research. They start with a series of decision trees to guide the decision in what kind of data the user has and how best to present the findings.

The authors cover topics found in traditional statistics texts: margin of error, significant differences among and between groups, and selection of an appropriate sample size. Among the topics that set Quantifying the User Experience apart are the discussions of standardized usability questionnaires (SUS) and a discussion of “enduring statistical controversies of which user researchers should be aware” (p. 241). Their examples cover topics like rating scales for continuous data, comparing completion rates to a benchmark, comparing two designs (A/B testing), standardized usability questionnaires, and other topics.

Sauro and Lewis provide a Microsoft Excel calculator that performs the calculations in this book, which mentions a companion book, Excel and R Companion to Quantifying the User Experience: Rapid Answers to over 100 Examples and Exercises.

Quantifying the User Experience will make a terrific textbook for any series of UX research courses. Each chapter features key points and references with many
including examples, a list of the formulas used in that chapter, and problems to solve using those formulas. The chapters on sample size address both formative and summative usability testing and have given me the ammunition to explain why we need more usability test subjects.

Sauro and Lewis save the best for last—the appendix, which functions as a crash course in fundamental statistical concepts. A colleague saw this book on my shelf and asked me about my interest in “sadistics”; I was eager to share this book with him to show him that with a book like this one, there is no reason to fear quantitative analysis and the value it brings in supporting our UX efforts.

I highly recommend this book to anyone who wants to integrate quantitative data into their UX practice. I probably could have saved myself the costs of four semesters studying applied statistics for $49.95.

Elisa Miller
Elisa Miller, an STC Associate Fellow, is a senior user experience designer for ARGO Data Resources Corporation. She is a past president of the Lone Star Community and is the Director of Professional Development for UXPA (formerly UPA).

Thou Shall Not Use Comic Sans. 365 Graphic Design Sins and Virtues: A Designer’s Almanac of Dos and Don’ts

If you’re a fan of Comic Sans, don’t let this book turn you off. It’s full of practical advice for writers who would be designers, and for designers who want to be better designers. It is handsomely designed, with every page containing an illustration of the text, though not always successfully. It is a wonderful price for a hardcover, especially since it’s printed on glossy stock. For a book on design, I was disappointed that it contains no colophon, though I did find out on page 17 that it was set in Archer.

The book is broken into six sections: Type and Typography (my favorite); Layout and Design; Color; Imagery and Graphics; Production and Print (very technical); and The Practice of Design. I learned something from every section, though some more than others.

Thou Shall Not Use Comic Sans offers lots of good practical advice, such as “Thou shall always choose a typeface with an acceptable range of weights for body text” (p. 32). Some advice is obvious, and probably not helpful for experienced technical communicators, such as “Thou shall not set body copy using a script typeface” (p. 34).

I really appreciate the authors’ struggle to point out the differences between the print and digital worlds, for example: “Thou shall periodically check a printed laser or inkjet [copy] rather than viewing a layout on screen” (p. 116). Of course, how many of us had problems with printouts varying from printer to printer!

Here are just a few gems from the book:

• Against stretching type: “Claude Garamond did not spend decades drawing Garamond, only to have it inflated and distorted” (p. 50).
• Against defaults: “Thou shall not automatically use the default margins in your layout program” (p.
110). Ever wonder why Microsoft Word has default left and right margins of 1.25 inches?

- Speaking of Microsoft Word: “Thou shalt not use Microsoft Word for layouts” (p. 138). I remember the day I had to abandon a really good layout program for Microsoft Word, just so the developers could get their mitts in the source files. I’m still fighting that battle…
- In favor of white space: “White space is my friend” (p. 134). That is a mantra that I try to teach my students every year.
- In favor of style guides: “Thou shall own a copy of, or subscribe online to, *The Chicago Manual of Style*” (p. 309).
- And finally, this caveat about Google: “Thou shall not rely solely on Google” (p. 340). While it may be a good starting point, those who stop there and think they’ve done their research are fools. I have students who will do anything to avoid going to the library—the place where they can learn the most. But I don’t need to preach to the choir on this point.

**Charles R. Crawley**

Charles R. Crawley is a lead technical writer at Rockwell Collins in Cedar Rapids, Iowa. He also teaches professional writing and business ethics as an adjunct at Mount Mercy University, also in Cedar Rapids.

---

**The Insider’s Guide to Technical Writing**


STC member Krista Van Laan provides a comprehensive step-by-step overview of the technical writing profession. The 24 chapters are grouped into 6 parts, which in turn are arranged in a sequence, from evaluating your aptitude for this type of work all the way through advancing your career in this field. Part 1 helps you figure out whether you should try to become a technical communicator, Part 2 discusses the required skills and how to acquire these, and Part 3 covers the planning of documentation projects. Part 4 talks about starting to work in the profession, Part 5 explains the tools used in the industry, while Part 6 describes the ups and downs of the actual job, concluding with a chapter on managing your career.

*The Insider’s Guide to Technical Writing* is designed like a user’s guide: each chapter starts with bullet points that provide an overview of the information to be covered, sidebars are categorized by icons (which are explained in the preface), and there is plenty of white space. Three appendixes provide a glossary of terminology, a list of reference books, and a list of helpful Web sites. While most of the Web sites listed seem likely to continue for some time after this book’s publication, at least one (Gryphon Mountain Journals) no longer existed at the time I wrote this review. Such problems are unfortunately unavoidable given the pace at which information on the Web changes and the length of a book’s publishing cycle.

When I started to write software documentation more than a decade ago, a well-organized book that clearly explains the profession would have been very welcome. Some of the book’s examples will make you chuckle in recognition. For example: “Should personnel in your department require additional assistance, please register a request with a Technical Support representative.”? Ms. Van Laan drily comments: “What it means, of course, is: ‘For more help, contact Technical Support.’”

Tight deadlines are discussed throughout the book, but they become especially acute towards the end of a project cycle. Now that I translate technical documents,
I appreciated the author’s emphasis on planning also for the translation end of that cycle. Fortunately, if technical writers adhere to the writing and planning guidelines in this book, we translators should not be confronted by unreasonable deadlines and poorly written source text.

Portions of *The Insider’s Guide to Technical Writing* were updated from *The Complete Idiot’s Guide to Technical Writing* (published in 2001), which Ms. Van Laan co-authored, although there is enough new material here so even professionals who read the *Complete Idiot’s Guide* will find *The Insider’s Guide* useful.

**Barbara Jungwirth**

After writing software documentation and managing an IT department, Barbara Jungwirth now translates German technical documents into polished English appropriate for a specific audience. She owns reliable translations llc (www.reliable-translations.com), writes a blog, On Language and Translation (www.reliable-translations.com/blog/), and tweets (@reliabletran). You can also connect with her via LinkedIn (www.linkedin.com/in/BarbaraJungwirth) or Xing (www.xing.com/profile/Barbara_Jungwirth3).

---


With her interactive book, Kim Dushinski launched me into the world of smart phones and mobile marketing. Making that statement shows both my age and my expertise—my age since I am years behind my grandkids’ use of smart phones, and my expertise because her book opens for me the bright mobile future of technical communicators.

*The Mobile Marketing Handbook* is divided into three sections: Mobile Marketing Strategy and Implementation (overview and legal); Mobile Marketing Toolbox (how to get started); Marketing and Tracking Mobile Campaigns (implementation).

Scattered like pearls within 14 chapters are mobile statistics (five billion active cell phone subscriptions worldwide); best practices (how to avoid pitfalls, like Simon & Schuster’s payment of $10 million in damages for sending unwanted text messages); detailed strategies (how to build a short message service (SMS) list, using mandatory opt-in and opt-out); and strategies to find customers and get them to take action (mobile ads, search, quick response (QR) codes, or location marketing).

True to the nature of the book’s content, there are interactive mobile marketing opportunities sprinkled throughout with a mobile survey at the end of each chapter. Resources are provided on the book’s home page with access only for those who purchase it and sign in. Now you can see why I just had to buy that new Droid. And why I downloaded apps, signed up for text messages, and added my phone number to a social site. All in just a few short weeks. Guess what? My family is right; it’s addictive.

How does this book impact technical communicators who are not typically marketing professionals? In the section on mobile marketing vendors, the author lists Mobile Website Designers. Those who are “tech-savvy” (as the author defines us) will be called on to create millions of mobile companion sites to the company Web site—sites that do not make the user squeeze or scroll to find important information and that provide marketing strategies within a single tap.

Besides content and format design, there is the need for navigation between Web and mobile sites, click-to-call buttons, banners with widths that vary, and simpler graphics. To support future marketing opportunities, Dushinski recommends that these sites have their own URL, typically ending with .mobi.

Dig out your old Cascading Style Sheet (CSS) training materials and freshen up on HTML5. With a copy of the *Mobile Marketing Handbook* in hand, create a mobile version of your own Web site. The next opportunity for technical communicators is occurring right in our pockets.

**Donna Ford**

Donna Ford is a senior member of STC and has served on her local chapter’s board. She has been a technical writer since 1987 in the hardware, software, and government health care industries. She holds a certificate in information design from Bentley College.
See What I Mean: How to Use Comics to Communicate Ideas


Storytelling is great for conveying information in a memorable way. Comics can make storytelling even more effective through images. See What I Mean shows you how to present business information using comics. Cheng writes, “Comics are like a Trojan horse for information” (p. 165). See What I Mean is written for non-artists and the comics uninitiated. It starts with an overview of what comics are and how to read them, such as what a gutter is and the order to read speech bubbles. Then it details how to make comics. Cheng creates an example comic that describes the purpose of Square, a new credit card reader for smart phones. Finally, Cheng goes over how to use comics for business. Each chapter starts with an overview comic. These comics are good examples of his method.

If you give someone this book to convince them to use comics, I suggest starting them with Chapter 8, “Applying Comics.” Start with this chapter to get an idea of how you want to use comics, and then apply the ideas learned on your own work. I make comics in my spare time and wanted to get ideas about using comics in my day job. Chapters 8 and 9 were the most helpful. Also, the table of contents and the overview comics make it easy to find your information if you are not sure.

Cheng is an enthusiastic writer with an obvious passion for comics. Most of the book is spent on creating comics. Cheng is encouraging to the non-artist, but he might spend too much time convincing you that you can draw. If you are that reluctant, I do not think any amount of text will convince you. Because there are already so many great books on creating comics, I was hoping for more information on how comics can be used specifically with business.

Cheng discusses a number of benefits to using comics. Relatively speaking, creating a comic does not take much time. The skills are easy to learn. You can work with tools as simple as a pen, sticky notes, and stick figures to create a story that readers relate to. “By reducing the amount of detail in a drawing, you can encourage your reader to relate personally to what’s being presented” (p. 24). And the restrictions of the format, such as length, can help you present your idea in a concise way.

People are finding that comics are a good way to not only help them retain information, but to get them to read it in the first place. “. . . a senior user researcher at Adobe, used comics to convey her research findings. . . she found that more people actually spent time reading her findings” (p. 168). People will actually read our content if we format our business information to be enjoyable or entertaining.

Angela Boyle

Angela Boyle is a technical writer for Tyler Technologies, Inc., where she has worked for seven years. She graduated from the University of Washington with a BS in technical communication.

Usability in Government Systems: User Experience Design for Citizens and Public Servants


Elizabeth Buie and Dianne Murray have pulled together a book that is long overdue. Government computer systems affect everyone, but until now, no book has focused on improving the user interaction with those systems.

The editors do most things right. Their collection of 24 chapters by 41 authors spread over nearly every part of the globe provides an international kaleidoscope rich in detail. Each chapter focuses on a distinct angle on the general topic, so that there is little repetition beyond general principles. Thus, you have discussions of usability issues with government Web sites, online forms, defense software, emergency response, bill drafting, the content and language of systems, accessibility, security, contract language, requirements documents, cultural differences, and so on.
Most chapters analyze case studies of success and failure and include a “Success Factors” section, which drives home lessons learned. Each chapter ends with a useful list of materials for further reading.

Eight chapters, for me, are particularly useful and interesting. Kathy Gill insightfully reflects, “It is important that the language used on the web site reflects how our citizens think as well as the tasks they are trying to accomplish” (p. 37). Kate Walser describes how to apply personas and storyboards in the government 2.0 environment. If, like me, you’ve worked within a legislature, you might find fascinating Monica Palmirani and Fabio Vitali’s account of the usability benefits of using XML-based legislative bill drafting tools and European attempts to introduce such tools.

If you work with contracts, don’t miss Timo Jokela and Elizabeth Buie’s thoughts on the many ways to work usability requirements into government requests for proposals. The chapter on system response to terrorist attacks, by Gitte Lindgaard and others, describes design problems when many agencies are involved; I relish hearing about prototyping applications with names like eXplosives Identification Tool!

Three chapters feature authors familiar to STC readers. Ginny Redish and Susan Kleimann establish the need for plain language by analyzing government projects that have won plain language prizes; they offer a fine two-page table of guidelines. Rahel Bailie gives exciting advice on how a governmental body can ensure usability by developing a content strategy, as seen in Vancouver, BC, Canada. In addition, Whitney Quesenbery crisply defends remote usability testing for government agencies.

Unfortunately, the other 16 chapters don’t work as well. Some are dull reading, with too many long, often boring paragraphs. Some chapters (including those on security, privacy, and policymaking) seem not to apply directly to usability at all.

The book suffers from one interesting usability weakness: Neither the detailed table of contents nor the biographical section identifies who wrote which chapter. With several dozen contributors, the book can be hard to navigate.

Usability specialists in government environments should get this book. Technical communicators with occasional responsibilities in this area can borrow a copy to check a few chapters relevant to their needs.

Avon J. Murphy
Avon J. Murphy is a technical editor in western Washington. A retired college professor and government writer, he is an STC Fellow, a contractor, and principal in Murphy Editing and Writing Services, specializing in computer and Web technologies. Avon served as book review editor for Technical Communication for 17 years.

Type Matters!

There is an old adage that most everyone is familiar with: don’t judge a book by its cover. However, if we were to do so, just for a minute, Type Matters! would definitely not disappoint. Simply put, the book is lovely: text pressed directly into the leather bound cover, two ribbon markers, an elastic strap, and inside, some good, heavy paper that is easy on the eyes. Without reading the pages, the message of the title is already communicated through the obvious time and effort that went into producing this quality book. With such a sturdy build, it is obvious that this book is meant to be used, not just look pretty sitting on the shelf.

The book’s quality is not just skin deep. The information on each page is invaluable and is presented in a way that is easy to comprehend. For each “rule,” author Jim Williams gives an example of that particular rule in action. I say “rule,” but they are not presented as rules. Williams’ approach is to show what works, what doesn’t, and why. He does so with short examples, usually blocks of text, that when placed right next to one another highlight the type treatments that really function well. The ideas he explains are not cheap tricks or clever gimmicks meant to fool the reader into reading. Rather, each tip’s point is to create type treatments that invite you onto the page and keep you there long enough to read the information. In essence, you should not notice the type at all.

Williams has himself made Type Matters! a book that is very readable. He doesn’t waste time on the
page explaining the deep theoretical underpinnings of why the careful manual adjustment of the space between letters results in more easily readable lines and paragraphs. He gets right to the point, showing clearly what works and what doesn’t. Not only is the information easy to understand, it is easy to find, especially if readers put the ribbon markers to good use.

I see this as a fantastic resource for someone just getting into typography or document design because as stated earlier, this book is as understandable as it is readable. Not everyone is just starting out, though. For the more seasoned professional, who has perhaps already internalized everything Williams explains, it is still a good book to have handy for the times when a quick, simple explanation is needed to help another designer, writer, or client understand specific design decisions that result in cleaner, neater, and more readable text.

**Spencer Gee**

Spencer Gee holds a Master’s degree in composition and rhetoric and teaches Freshman Composition at the University of Central Oklahoma. He also is working toward a degree in graphic design.

---

**WordPress 3 for Business Bloggers**


We’re all aware of social media and self-promotion in principle, but far too many technical communicators don’t push their own boundaries. For the upwardly/outwardly mobile, having a strong online presence in your own blog is an important component of being a maven. Like anything else worthwhile, this will take time and effort, but it’s well within anyone’s grasp. Although anyone can set up WordPress, using it to create a great, dynamic blog takes planning and work. In addition, that’s where *WordPress 3 for Business Bloggers* comes in: it tells you how to design, maintain, and publicize a blog to promote your brand.

The book starts by explaining the many things you can do with a business blog and introduces you to the ways that WordPress can do them, such as increase sales, add value to your company/product, provide customer service, and many other things. Thewlis uses a detailed case study as an example, an effective technique for demonstrating technical material. In each chapter, after learning techniques, you get to see how they work in the case study.

The presentation is strongly tutorial, yet there’s enough conceptual material and background information that you’ll benefit from reading the book without actually trying anything. That’d be a waste, though, as Thewlis includes many hands-on examples to try out. As soon as you learn about a technique or a concept, you can see how it’s applied to the case study blog. You can download code samples from the Packtpub.com Web site for many of the chapters.

The chapters are very approachable. They tend to start with conceptual material—such as what is CSS, breaking down the elements of content, understanding key performance indicators—followed by detailed instructions on how to use/implement these concepts for yourself, using the case study. There are frequent sidebars with references to programs you can download.

Security is one thing the book didn’t cover. Yet with the knowledge you’ve gained, you can find information...
and tools on WordPress security easily enough. (Hint: The WordPress.org libraries have tens of thousands of plugins and widgets, including security tools and information you need quickly.)

Although the title refers to business bloggers, this book is of great value to anyone who wants to set up a WordPress blog or Web site. *WordPress 3 for Business Bloggers* gives you enough information to successfully install WordPress 3. You then learn how to customize and expand your blog. At the end, you'll learn to analyze Web stats to see how well you're reaching your audience, how to monetize your blog, and how to manage growth. Whether you go through the book as a reader or as an active participant, you'll come away knowing more about WordPress 3 and blogs than you did before. Better yet, you'll know the things you need to know to create and maintain your own attractive, profitable blog.

**John Hedtke**

John Hedtke has been a technical writer for 30 years. He has published 26 nonfiction books. John runs a blog for nonfiction authors called “Hey, Kids, Become an Author at Home in Your Spare Time and Earn Big Bucks!” at [www.tradebookauthor.com](http://www.tradebookauthor.com). He lives in Portland and Eugene, OR, and drinks a lot of coffee.

---

**Design Elements: Color Fundamentals**


Aaris Sherin has written a book filled with design examples that show the impact of color. Drawn from around the globe, the design examples provide visual confirmation of her text that discusses form and space, meaning and emotion, and communicating with color. Her words are few, and can be, because she has selected her examples wisely.

For example, Sherin discusses aspects of color, which she defines as “hues or combinations that provoke a certain response or have predictable characteristics” (p. 92). One example that accompanies the text is a strip of Finnish stamps in a cool green on a white background that she describes as lively and fresh. Also included to illustrate her point is a poster with brightly colored circles giving information about a festival. The largest circle, in a lemon yellow, draws the eye first and contains the most important information about the event—the date and the title.

*Design Elements* has tips and suggestions scattered throughout. On page 84, Sherin suggests that designers just starting out compile a sketchbook of color combinations that they like to better train their eye. Called an “inspiration book,” the volume will turn out to be a great reference tool. People who haunt bookstores (real or virtual) know that you can purchase books that do this for you. Sherin notes, however, the value in doing this yourself is “that it trains your eye to pick up pleasing color combinations on your own. Do this for a year, and you will be able to make better color choices faster” (p. 84).

The latter part of the book covers how to organize color as well as ten rules for color and when to break them. Rule number three is to make your color choices for a reason, elaborating that colors are associated with specific attributes and suggesting that choices should acknowledge regional and cultural differences. In a page devoted to working with clients, Sherin says that designers need to remember “almost everyone has an opinion about color” (p. 155) so it’s up to designers to explain their color choices and to show how the choices will contribute to effective communications.

Designers are the most likely audience to benefit from Sherin’s advice and examples, which are sophisticated and seem more likely to be building on previous understanding of the topic of color.

**Ginny Hudak-David**

Ginny Hudak-David is the senior associate director in the Office for University Relations at the University of Illinois, the largest public university in Illinois with campuses in Urbana-Champaign, Chicago, and Springfield. She works on a variety of communications projects.
New Media and Intercultural Communication: Identity, Community and Politics


In *New Media and Intercultural Communication* edited by Cheong, Martin and Macfayden, intercultural communication scholars investigate the complex and dynamic relationship between technology and culture, or what they coined “mediated intercultural dialectics” (p. 5). The relationship between technology and culture foregrounds change, necessitating research that describes the contradictions intrinsic to sociotechnological practices and blurs the boundaries between online and offline as discrete spheres of reality. Yang’s chapter on online identity expression illustrates this complexity. She describes a number of dialectic contradictions negotiated by Web users, such as authenticity/anonymity, stability/fluidity, and trust/suspicion.

Case studies of media use in Niger, Israel, India, Jamaica, Chile, and Russia toward the end of the book contrast sharply with scholarship that predicts cultural homogenization resulting from increased media connectivity. “The dominant perspective stresses empowerment, standardization, and assimilation into alleged global norms and the World Wide Web culture…Yet what actually happens…is contested and negotiated within complex local and political conditions” (p. 2). For example, *New Media and Intercultural Communication* analyzes the formation of group identities online, differences in levels of mediated disclosure, and contextual variations of Internet use.

Using primarily interpretive and critical research, the authors in this compilation argue that technology and the study of technology are not ideologically neutral, calling for more empirical studies of CMC and global intercultural communication.

Rybas’s chapter on Facebook, for example, argues that identity, relationship, and community development that occurs on the site is constrained by the social network’s allowed programming, which structures users’ experiences. The political nature of communication technology is further evidenced in how knowledge is defined (Olaniran), in who has access to these technologies, and in how use of those technologies are shaped by sociopolitical forces (Haslett, Privalova). However, in dialectic fashion, the authors included in this book collectively problematize both the “digital divide” as well as social media’s “emancipatory” function. While increasing access to communication technologies has the potential for empowerment, it is complicated by gender “textiquettes” (Shuter), commodification of cultural events (Lee), and historical disparities (Chen & Dai). As Gordon and Sorenson argue, “It is problematic to equate the increased adoption of information technology in developing countries with social and economic progress” (p. 282).

A number of the chapters engage in etic theorization, such as applying Hofstede and Hall’s cultural dimensions (individualism/collectivism; power distance; high/low context communication), Gidden’s structuration, and third person effect to new media, providing a quasi-blueprint for studying such subjects as mobile phones, Facebook, database design, e-learning, and Web site preferences. Moving forward, it will be essential for communication scholars to engage in more grounded theory approaches, incorporating social media to study social media, that examine how technology impacts intercultural communication in ways that are distinctive from face-to-face communication. Finally, it will be important to engage in new media research that complicates confluences of culture with nationality, and thus meet Cheong, Martin, and Macfayden’s challenge.

Joshua Hoops
Dr. Joshua Hoops is an assistant professor in the Department of Communication & Theatre at William Jewell College in Liberty, MO. His research focuses on the role cultural identity plays in intercultural communication — interactions that are both contiguous and computer-mediated in nature.
Writing Health Communication: An Evidence-Based Guide

Writing Health Communication: An Evidence-Based Guide is an advanced guide for health communicators. This guide covers a wide range of topics that are suitable for novice health writers and advanced writers alike: from organizing information to usability testing and even selecting the appropriate graphics for your audience.

The advice offered in Writing Health Communication is in-depth and insightful. Much of this advice is already available in the literature; for example, you can find some of the same information about graphics in Horton’s 1993 article that appeared in Technical Communication. However, the real benefit from this guide is that it situates its advice about document design and writing specifically to the health fields and explains the research in a practical way that is easy to understand and useful for health writers.

Each chapter in Writing Health Communication treats a different health writing topic. The authors arranged the chapters in a sequential manner, starting with issues in document design and moving to more specific techniques for usability testing, using evidence-based information, and message framing. The final chapter summarizes the information and provides health writers with practical recommendations.

While each chapter offered at least a few pieces of wisdom that I plan to use in my research and writing, the chapters I enjoyed the most were those on developing evidence-based content for health promotion materials (chapter 6) and mapping change mechanisms onto behavior change techniques (chapter 7). While these topics are not exactly new in the health communication or technical writing literature, health communicators frequently ignore them when developing content for their health materials. These chapters remind us of the importance of understanding the audience, how and why they will read the health information, and how to discover which strategies will be most effective for addressing that particular audience.

Writing Health Communication does have a few drawbacks. Some of the design suggestions, such as using tabs or color for brochures, are disregarded as impractical in this age of budget crunching in healthcare. I left off reading the chapters that cover design wondering how health communicators could use these suggestions while working on a tight budget. In addition, throughout the guide, only a passing mention was made of the role of culture in designing health materials. Given that culture has such a large impact on preferences for health communication as well as a patient’s understanding of wellness and illness, I was surprised that it did not play a larger part in the guide.

Overall, Writing Health Communication is a very useful reference for professional health communicators and academics alike. The advice is detailed, easy to understand, and practical. Even the most seasoned health communicator or researcher will find that this book provides fertile ground for improving their techniques.

Nicole St. Germaine
Nicole St. Germaine is an assistant professor in the Technical and Business Writing Program at Angelo State University, as well as a freelance writer and consultant. Her research interests include technical communication for a Mexican-American audience and technical communication in the health fields.
Data Representations, Transformations, and Statistics for Visual Reasoning


Most STC members have heard of Edward Tufte’s classic book, *The Visual Display of Quantitative Information*. His work is a great starting point for exploring data graphics whether you’re a scientist or an educated amateur. In *Data Representations, Transformations, and Statistics for Visual Reasoning*, Ross Maciejewski looks at data graphics from the perspective of those who actually create and manipulate the data, including scientists, engineers, and statisticians. As a result, this book is not for the faint of heart. (Warning: Here be equations!)

Where Tufte relies on persuasive visual examples to make his case, Maciejewski digs deep into the mathematical characteristics of data. In this small book, he explains the different data types (for example, nominal versus ordinal), the various uses of colors to represent value ranges, what he calls “preconditioning” (transformation of the data so that its distribution meets the needs of statistical analysis), how to select appropriate “bins” (value ranges), and how these factors affect the main graph types you can use to display data more effectively. The goal is to help data mavens understand their own data, present it to others, and use it to support reasoning about the meaning of the data. Perhaps the best part of *Data Representations, Transformations, and Statistics for Visual Reasoning*, though it’s left almost entirely implicit, is the recognition that thinking about and creating data graphics are still largely bound by the constraints of the print model (and its PDF descendant). Maciejewski reminds us that by designing visualization tools that can be shared over the Web, we move beyond sharing our data with our reader to encouraging our reader to interact with that data. That’s a paradigm-changing insight that deserved more explicit treatment.

Unfortunately, the writing is often dense and includes occasional errors (“with green being the lease severe alert,” p. 8; unlabeled graph axes, p. 14) and many terms that assume prior knowledge and that would benefit from explanation (“spread variation,” p. 12), and this is exacerbated by the use of fussy, too-small type that makes the book unnecessarily difficult to read. There are also poor choices such as the failure to use any colors other than grayscale in the chapter on color use—not even a link to a page of color images on the publisher’s Web site, as is commonly done for research journals that don’t publish color printed versions. (The bibliography is decently long, but no Web links appear there or in the text.) The book clearly could have used a more rigorous developmental edit.

These factors may scare off some potential readers of *Data Representations, Transformations, and Statistics for Visual Reasoning*, although most of the intended audience can plow through and understand the many important points. If you’re not a member of this audience, but willing to devote the necessary effort, you’ll develop an understanding that provides considerable credibility when you discuss data graphics with the subject-matter experts who create them.

Geoff Hart
Geoff has helped hundreds of scientists from around the world design effective data graphics, and has learned a thing or two about visual reasoning along the way.

Presentation Secrets: Do What You Never Thought Possible with Your Presentations


Having experienced the embarrassment of a client requesting his management never delegate him to give presentations again, author Alexei Kapterev became determined to master presentation skills and share what he learned.

Kapterev quickly captured my attention in the first two pages of his book by revealing his initial failure with presentations to customers during his work for a consulting company. As a result of his failure, he was determined to master the skill of presenting. He tells how he gained much fame through his “Death by
PowerPoint” presentation (http://www.youtube.com/watch?v=jFfFQ9XU7Jw). So, I was eager to learn how he made the turnaround.

Kapterev is like the great football coach, Vince Lombardi, whose team lost for almost 10 straight years. Lombardi took the players back to the basics: “Let’s start at the beginning. This is a football.” Likewise, Kapterev begins his book with the basics, “What Are Presentations?” on page 2. Then, he lays out the game plan: story, slides, and delivery.

First, a great presentation needs to tell a story. Stories, he explains, have been used in early communication, but are still important today. Stories unite the facts and the concepts. You must put the facts in a sequence and make connections.

Next, create the slides. He points out that a great slide presentation must be able to work with or without the presenter, as more presentations are being e-mailed rather than presented. Kapterev includes a helpful reference, the slide design matrix (p. 107), where he details that text reminds, images impress, diagrams explain, and charts prove.

Finally, after developing your story and creating your slides, you are ready to deliver your presentation. Two key speaking tips he suggests are to speak faster if you want to change people’s minds when you want to persuade, and speak slower when you affirm the obvious. Not only should you be aware of what you are communicating, but you should pay attention to the nonverbal feedback from the audience.

When your presentation is over and you’ve opened the floor for questions, one of his many suggestions is to repeat the question for all to hear.

In Chapter 11, Where to Go Next, Kapterev provides a concise presentation checklist that you will find valuable. As you prepare your next presentation, use the questions included in the checklist to determine if your presentation is ready to be delivered.

Two key tips I plan to implement in my next presentation are to create conflict (p. 52) and involve a hero and villain (p. 63). As Kapterev points out, if you don’t have conflict, you have no story. Without conflict in your presentation, your audience will become bored. You should ask yourself, “What is the problem (the conflict) that I solved or intend to solve?”

After reading Presentation Secrets, you will definitely come away with useful ideas you can implement in your next presentation.
Did You Miss the Summit?

Don’t miss this second chance at attending the Summit—from the privacy of your home or office!

SUMMIT@aClick lets you attend the conference you missed! Content of almost every session was captured (audio and visuals) and will be available at the STC Live Learning Center. Members who did not attend the Summit can purchase SUMMIT@aClick now—see the STC website for details! **STC is the only meeting in the technical communications field that offers this ability to attend the conference sessions without having to travel.**

Note: SUMMIT@aClick was included in the full registration fee for the Summit. Attendees should have received an email with username and password.

You can “attend” all the 2013 sessions that interest you . . . at a time and place of your choosing and without having to travel.

SUMMIT@aClick
Continue Your Learning with STC Education!

STC offers a wide variety of online education options throughout the year. Whether you need an introduction to a subject, an in-depth review, or just a brush-up, STC has what you need. Advance your career today with online education from STC.

- Live Web seminars
- Multi-week certificate courses
- Virtual conferences
- Recorded webinars
- And free archived seminars (members only)
There are no unreachable goals.

Only underpowered tools!

Are you using the right tool for technical documentation?

Find out: www.douwriteright.com

Scan to read what industry experts have to say about Adobe® FrameMaker® 11.
The Leading Authoring and Publishing Solution for Print, Online, Desktop and Mobile Documentation

New Flare 9 Features Include:

- Native Right-to-Left Language Support, including Arabic, Hebrew, and Persian
- Socially-enabled Output and Collaboration
- Advanced Print Improvements, including CMYK Support
- Plug-In API
- New File Support, including Office® 365 and FrameMaker® 11
- Mobile Publishing, including EPUB 3 Support
- Enhanced Split-view XML Editor with Syntax Coloring
- Plus Dozens of Other New Features and Enhancements

Introducing MadCap Pulse
Documentation Meets Social Collaboration

Add a Social Layer to Your Documentation to Improve Customer Engagement, Build Communities and Foster the Sharing of Information

MadCapSoftware.com | +1 858.320.0387