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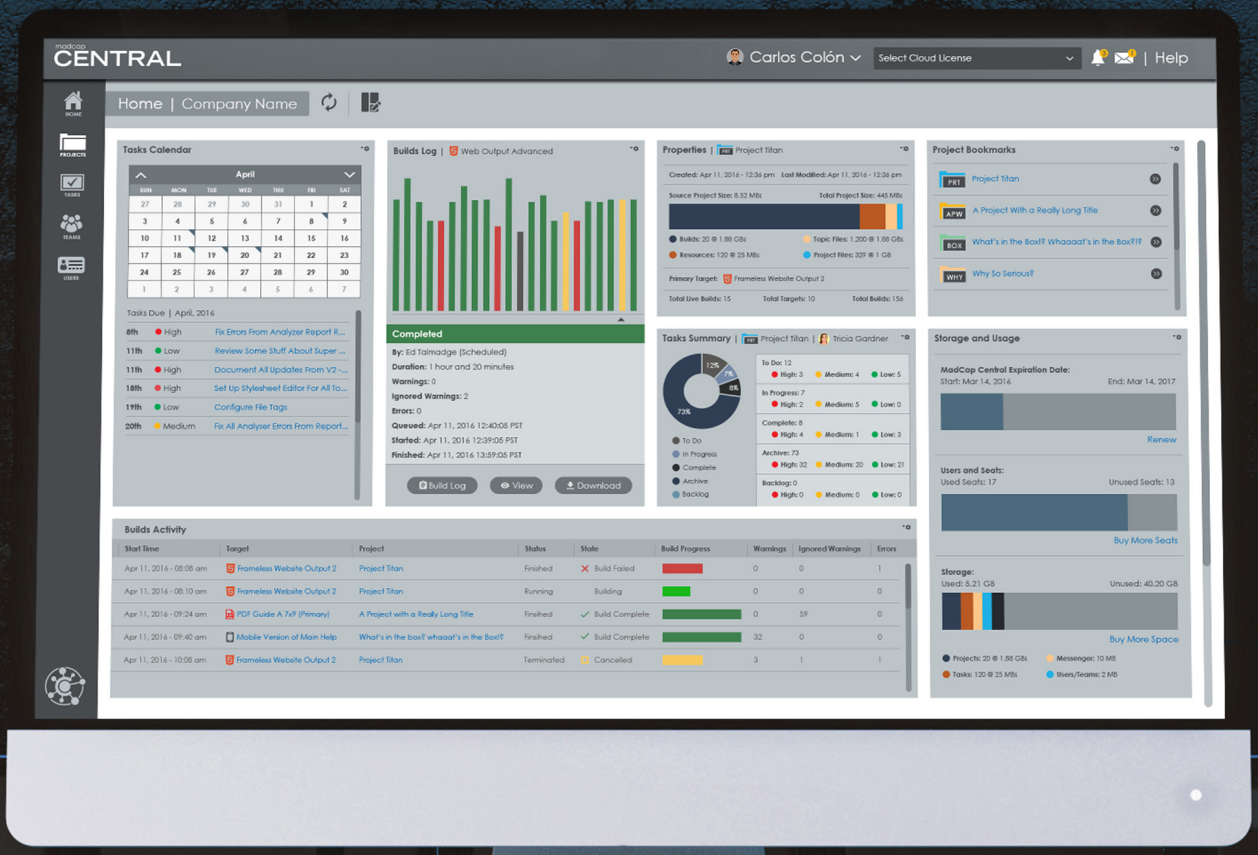

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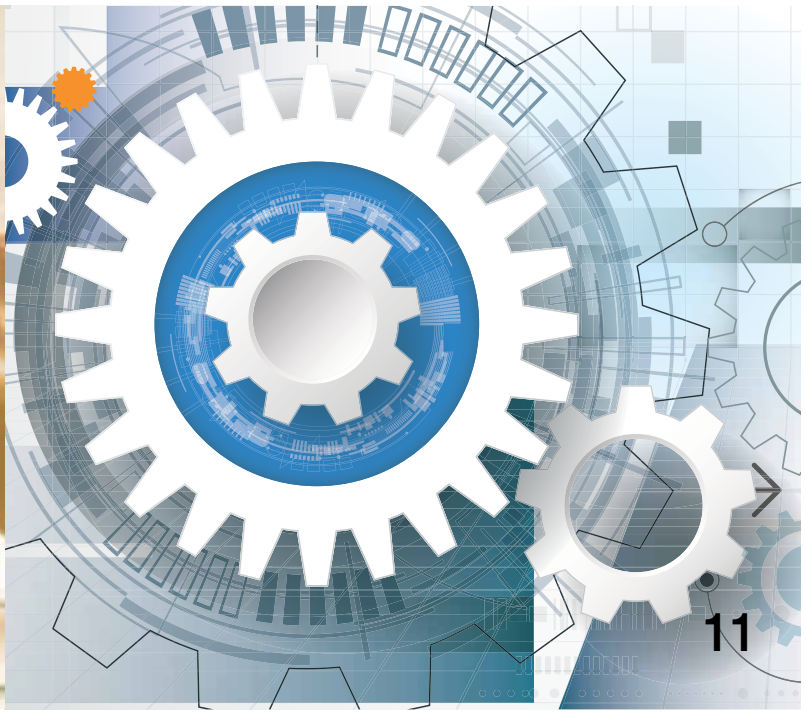

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STC Summit Pre-Conference Courses (half day)	3
STC Annual Summit	8
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A Note from the Editor

MARCH *INTERCOM* IS focused on core competencies in technical communication, and thus it made sense to me to ask several of the CPTC accredited trainers to submit articles on the nine core skill areas of technical communication, per STC's Certification Program. The nine areas are project planning, project analysis, content development, organizational design, written communication, visual communication, reviewing and editing, content management, and production and delivery.

These nine core areas were built from a job task analysis (JTA) survey of STC members and professionals in technical communication and from the results of a comprehensive TC BOK content review. The survey asked participants to rank the importance of knowledge, skills, and abilities related to process management, researching, design, development, review, and production. It also focused on tasks, importance, and frequencies related to their job responsibilities and knowledge of the profession.

The Foundation Professional Certification is built on Bloom's Taxonomy and focuses on knowledge of the field. To achieve the Certified Professional Technical Communicator Foundation designation, applicants must demonstrate knowledge and understanding of best practices in technical communication by passing an exam based on a body of knowledge. The authors of the articles in this issue of *Intercom* know these nine areas as well as anyone involved with the program, as they have all passed the exam, are CPTC certified, and have been accredited to teach training courses on the subject matter.

The textbook STC selected for the CPTC Foundation exam body of knowledge is Richard Johnson-Sheehan's *Technical Communication Today*, 5th edition. The authors have cited important references to the textbook for each of the nine competency areas. If you're interested in becoming Foundation Certified through STC's CPTC program, this issue of *Intercom* will be useful to you in studying for the exam. And even if you're not planning to become certified, the articles detail the foundational skills every technical communicator should possess.

Besides the Chief Examiner for the program (Craig Baehr), the authors in this issue are all APMG International accredited individual trainers authorized to teach Foundation CPTC courses. Please visit the trainers' websites, listed at the end of each article, to contact them directly and/or to register for or request an individual training course for your organization.

This issue of *Intercom* also contains a mid-term report by 2016–2017 President Adriane Hunt, information about STC's annual awards and honorees to be presented at the 2017 Summit, and details for attendees on the Summit's Closing General Session and the Washington, DC area.

As always, send your *Intercom* feedback or comments to *intercom@stc.org*.

Liz Pohland

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intercom

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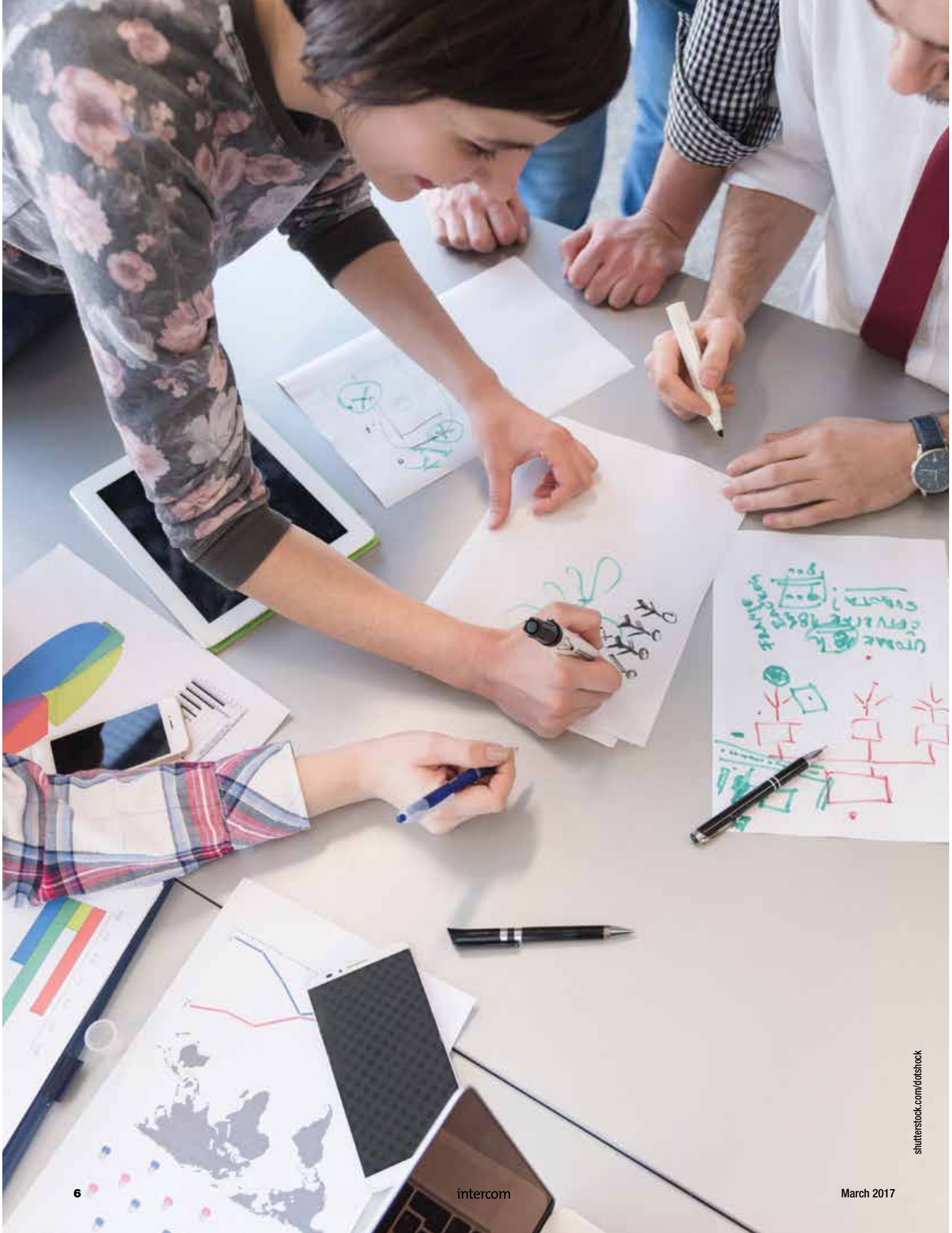

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Laying the Groundwork: Project Planning and Project Analysis

By CHRIS HESTER | *STC Fellow*

THE CPTC FOUNDATION level focuses on knowledge of the field as represented by nine key competency areas. The first two competency areas, Project Planning and Project Analysis, lay the groundwork for what is a long-established goal in technical communication: deliver the right information to the right people in the right format at the right time.

Project Planning

Project Planning focuses on the work involved to plan and manage not only the documents, but also the work teams involved on the project. This means knowing and understanding how the technical communication lifecycle works. Richard Johnson-Sheehan's text, *Technical Communication Today* (5th ed.), defines five stages in the lifecycle:

- Planning and researching: to define, analyze, and research the rhetorical situation of your project. The rhetorical situation includes the purpose, subject, readers, and context.
- Organizing and drafting: to shape the ideas and content based on the selected genre.
- Improving style: to continually edit and refine the project's style.
- Designing: to provide users with accessible information, effective graphics, and readable layout.
- Revising and editing: to review the document and ensure the readers receive the information they need.

The key to Project Planning is first recognizing that the lifecycle stages are an iterative process, not linear. As the project progresses, we move from one stage to another, but circumstances may require that we revert and perform additional work before continuing. For example, while working on a draft, we may discover additional research is needed. This in turn may require adjusting the project schedule.

These lifecycle stages apply to the different genres within technical communication, from emails and letters, to proposals to user guides and policy manuals. There will always be some degree of "planning, organizing, improving, designing, and revising" on a documentation project, just as there will always be a rhetorical situation for a project.

According to Johnson-Sheehan, this rhetorical situation is critical. The subject defines the scope of the project, while the purpose explains what the project will do. After we have a general idea of the subject and purpose, we can begin strategic planning. Strategic planning involves setting objectives, creating a task list, and developing a timeline. An objective is like the project purpose, but the analysis goes deeper:

- Why are you doing this project?
- Why is the project important?
- What problems is the project expected to solve?

Tasks support the project objectives and map to the stages within the lifecycle. Working backwards from a

deadline, we can assign checkpoints or milestones, and then fill in the project timeline with tasks related to planning and researching, organizing and drafting, and so on.

The Project Planning competency also addresses tracking progress and the importance of activity reports. Progress and status reports are an important communication tool for many teams. And remember when I mentioned that the project lifecycle is iterative? By tracking progress against a project timeline, we collect data and experience that will help us create more accurate project schedules in the future.

Through mastery of the Project Planning competency, technical communicators demonstrate knowledge of:

- The writing process and its relationship to the planning of a team's work.
- The rhetorical situation and how it prepares us for defining our readers.
- Strategic planning in a technical communication context.

Project Analysis

The rhetorical situation and project plan provide a framework or compass by which the team can start working. The Project Analysis competency builds on this information to focus on the reader and develop a reader profile. Why is this important? In technical communication, deliverables are targeted towards specific audiences. A reader profile will tell us about the readers' distinct needs, background, abilities, and experiences and help us understand how readers will use the documents we produce.

The first step in developing the reader profile is to identify the types of readers:

- Primary readers are the action takers, the main audience.
- Secondary readers are the advisors, the people who may already know about the subject and who advise the primary readers (e.g., engineers, lawyers, scientists, etc.).
- Tertiary readers are evaluators and include people who have an interest in the document's information (e.g., auditors, reporters, competitors, etc.).
- Gatekeepers are supervisors who review the document before it is sent to the primary readers.

After identifying the document's readers, we can develop profiles to identify their needs, values, and attitudes. Johnson-Sheehan recommends using a matrix to capture this information.

- Needs: What information do the primary readers need to make a decision? What to the secondary readers need to make a recommendation?
- Values: What do the readers value most? Are you writing for an audience that values profit or one that values efficiency? Do they value accuracy? How much do they value social concerns?
- Attitudes: What are the readers' attitudes towards the subject and the company? Will they embrace the topic or be skeptical?

Context has several components, and again, it is helpful to use a matrix when assessing the readers' context. This assessment goes beyond "where and when" to evaluate:

- Physical: Where will the readers use the document?
- Economic: What money-related issues will restrict the readers' actions?
- Political: Are there micropolitical or macropolitical trends that will influence the readers?
- Ethical: What are the personal, social, or environmental issues that shape the reader's responses?

The matrix approach seems simple, yet it is an effective exercise for brainstorming readers and their characteristics, especially with team members or clients who have never done personas or user analysis before.

Taking the time to identify reader types, assess readers, and develop a reader profiles has its benefits. The profiles can help you decide the most appropriate document type for your project. For example, a quick reference guide may be more appropriate than an instruction manual. Next, information in the profiles can improve your decisions regarding content, organization, style, and design of your documents. And if your documents will be read by a global audience, then reader profiles will help you identify multicultural issues that may affect content, organization, design, and style.

Through mastery of the Project Analysis competency, technical communicators demonstrate knowledge of:

- Reader profiles and the implications of working with global audiences.
- The process and benefits of mapping information needs to an audience.
- The methods for analyzing the different contexts in which readers will use an information product.

CHRIS HESTER *is the founder of Red Desk Studio, an STC Fellow, and accredited CPTC Foundation trainer. She has been actively involved in the technical communication community as a volunteer and academic mentor, and has presented at events such as the STC Summit, LavaCon, and BigDesign. Chris currently offers the CPTC Foundation Exam Prep Class online and as instructor-led class. She has taught the class for organizational teams, and she will be teaching the class at the STC Summit in May. To schedule a class for your team or for information, contact her at* chris@reddeskstudio.com *or visit her website* www.reddeskstudio.com.

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Content Development

By ALAN HOUSER | *STC Fellow*

NEARLY EVERY technical communication project requires research. Technical communicators must define research questions to be addressed. Technical communicators must acquire accurate information, vet information sources, and properly cite sources. Furthermore, technical communicators must develop content in appropriate *genres*—categories or types of documents—according to expected patterns for each genre.

The CPTC Foundation core competency of Content Development covers the tasks, methods, approaches, and practices of:

- Choosing an appropriate technical genre for a rhetorical situation
- Following an appropriate pattern, as expected by the reader, for each technical genre
- Conducting research for content development, particularly:
  - Defining research subjects
  - Formulating research questions
  - Developing a research methodology
  - Identifying appropriate sources
  - Appraising sources and evidence
  - Properly citing sources

Technical Communication Genres

Readers don't like surprises in technical documents. Documents should follow consistent, expected patterns of organization. A reader of an instruction manual expects certain types of information, as does the reader of a proposal or an activity report.

Holders of the CPTC Foundation certification must understand the major technical communication genres and their organizational patterns. Richard Johnson-Sheehan divides technical communication genres into six categories of documents:

- Letters, Memos, and Email
- Technical Descriptions and Specifications—including patents, specifications, field notes, and observations
- Instructions and Documentation—including process specifications, workplace procedures, and protocols
- Proposals
- Activity Reports—including progress reports, white papers and briefings, incident reports, progress reports, and laboratory reports
- Analytical Reports—including research reports, completion reports, recommendation reports, and feasibility reports

Each genre meets a rhetorical purpose, and follows a specific organizational pattern. For example, an analytical report typically includes, in order: Introduction, Methods, Research, and Discussion. You may see the mnemonic *IMRaD* used to refer to this pattern.

The Research Process

Johnson-Sheehan defines the research process as follows:

1. Define the research subject
2. Formulate research questions
3. Develop a research methodology
4. Collect evidence through sources
5. Triangulate your sources—ensure that your supporting evidence includes print, electronic, and empirical sources
6. Take careful notes
7. Appraise your evidence
8. Revise, accept, or abandon your hypothesis

Assessing the Quality of Information Sources

Technical communicators must choose information sources and vet their quality and accuracy. Johnson-Sheehan provides several tips for collecting and assessing information sources. For example:

- Consider whether your sources are reliable, and how they may be biased. All sources of information likely have some bias.
- For scientific sources, check a recent published *literature review*. A literature review traces research on a subject, and is valuable for assessing whether a particular source is timely and aligns with other research of the period.

These and other techniques can help to ensure that your research is based on valid, balanced prior research.

Citing Sources

Properly citing information is a matter of ethics and law. In this age of easy electronic sharing of information, technical communicators must pay special attention to and abide by the laws of copyright and trademark in countries where our information is published.

Copyright gives the copyright holder an exclusive right to reproduce, publish, or sell a literary, musical, or artistic work. One can cite copyrighted work, but one cannot reproduce copyrighted work, except in narrow circumstances (generally for personal use or commentary) without the permission of the copyright holder.

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ALAN HOUSER *is president of Group Wellesley, Inc., a Pittsburgh, PA-based company that provides authoring, content management, and workflow services to technology-oriented businesses, and training to technical communicators in technologies and best practices. Alan is a distinguished consultant and trainer in the fields of XML technologies, authoring and publishing tools, and technical communication best practices. Alan is an STC Fellow, Past Society President, member of the OASIS DITA Technical Committee and Lightweight DITA Subcommittee, and an authorized CPTC trainer.*

Group Wellesley, Inc. is pleased to provide public, online, and private CPTC Exam Preparation trainings. See www.groupwellesley.com/cptc *for our current schedule, or contact Alan at* arh@groupwellesley.com.

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Johnson-Sheehan, R. 2015. *Technical Communication Today*, 5th ed. Boston: Pearson.

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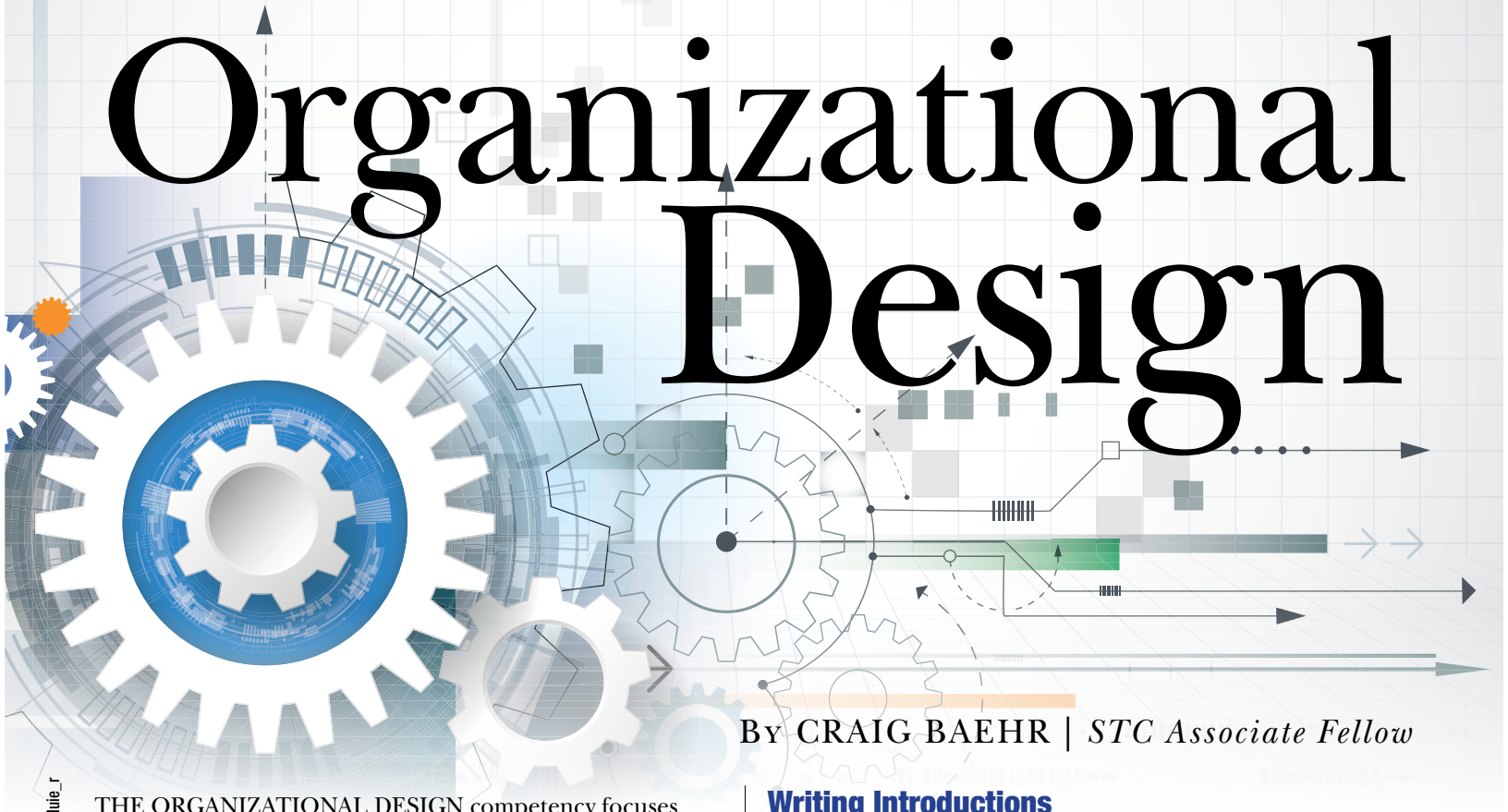
Organizational Design



By CRAIG BAEHR | *STC Associate Fellow*

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THE ORGANIZATIONAL DESIGN competency focuses on guidelines and techniques for organizing and drafting technical documents. Specifically, it covers organizational patterns and rhetorical moves for introductions and conclusions to technical reports, as well as content organizational strategies for specific technical genres including memos, technical descriptions and specifications, instructional content, proposals, activity or status reports, and analytical reports.

Mastery at the Foundation Level

At the CPTC Foundation level, you should be able to demonstrate basic knowledge and understanding of organizational patterns used in developing a wide range of technical document genres. This includes the ability to recall key terms and facts about the organization and drafting of technical documents. The two learning objectives that support this competency include demonstrating the ability to do the following:

- Discuss how patterns of arrangement can help you organize information logically.
- Explain how to use genres to outline and organize technical documents.

Additionally, candidates should be able to identify the major patterns of arrangement for major content sections and rhetorical moves within technical documents, including the introduction, body, and conclusion sections.

Writing Introductions

Richard Johnson-Sheehan (2015) identifies six opening moves which are commonly used to develop the content for introductions. These include discussing and scoping the subject, purpose, main point, importance, background information, and forecasting. For clarity, introductions should focus on these six moves only, and avoid extraneous information. While these moves can be organized in any order, typically they might be arranged based on any number of reasons, such as user needs, genre conventions, organizational guidelines, or simply for narrative clarity.

- Subject (defining or describing the topic of the document)
- Purpose (the primary purpose or goal of the document)
- Main Point (the main point or major claim the document is trying to make)
- Importance (why the document is important or significant to its users or readers)
- Background Information (important supplemental information users or readers will need to understand or use the document)
- Forecasting (content and/or organizational patterns featured in the document)

Organizational Patterns for Genres

Organizational patterns for the body of a document may depend on the document genre and its content. When organizing these sections, it's also important to consider any organizational conventions or other constraints that

may be unique to the document's subject or purpose. Johnson-Sheehan identifies six categories of document genres which are commonly used in technical communication, although they are not inclusive of every document type you may encounter. These six typical genres include:

1. Letters, Memos, and Email
2. Technical Descriptions and Specifications
3. Instructions and Documentation
4. Proposals
5. Activity Reports
6. Analytical Reports

Each document genre includes its own unique content sections. For example, letters, memos, and email might typically include a brief introduction, several narrative paragraphs, and a brief closing. Technical descriptions might include definitions, examples, lists of regulations, safety warnings, and information graphics that illustrate specific characteristics. Instructional documents might include an overview, list of materials, procedure, warnings, and possible uses. Proposals can include an introduction, followed by a discussion of the problem, plan, qualifications, costs, and benefits. Activity reports typically include summaries, results, future activities, and expenses. And activity reports typically follow the MRAD (methods, results, analysis, discussion) pattern of organization.

Additionally, individual sections or paragraphs typically incorporate common patterns of arrangement to organize main points or ideas. Johnson-Sheehan identifies nine typical patterns that can be used to develop individual content sections or paragraphs, which include the following:

- Cause and effect
- Comparison and contrast
- Better and worse
- Costs and benefits
- If … then
- Either … or
- Chronological order
- Problem/needs/solution
- Example

Many, if not all of these, should be familiar to you from your experiences in basic writing course you took in high school or college and are covered widely. It's important to consider which patterns to use and how to organize them, based on appropriateness for the topic, user, constraints, and conventions for the type of technical document you are writing.

Writing Conclusions

When writing conclusions, it is important to address five specific closing moves, however briefly, to reiterate key points, calls for action, and to provide closure and contact information. Like with writing introductions, the order in which you make these moves might vary depending on various constraints. Johnson-Sheehan identifies the five concluding moves as follows:

- Make an obvious transition (indicate the document is concluding)
- Restate the main point (remind readers of the primary goal or point the document is making)
- Re-emphasize the importance of the document (remind readers why the document is important)
- Look to the future (suggest next steps or actions)
- Thank readers and/or offer contact information (provide succinct thanks and / or point of contact)

Suggested Resources

In addition to the primary text for the CPTC Foundation certification, *Technical Communication Today*, you might visit the STC Technical Communication Body of Knowledge (*http://www.tcbok.org*) and search for keywords used in this article. Additionally, you might find reading books or articles on specific document genres helpful, too, such as a book on writing proposals, instructional documents, and other technical reports. And finally, if you work for an organization with a handbook or guide to writing specific document genres, that might help you understand strategies of how patterns may differ in the organizational development of various technical documents.

CRAIG BAEHR, PhD, *is an STC Associate Fellow and professor of Technical Communication and Rhetoric at Texas Tech University, with 25 years of technical communication experience. He serves as the Chief Examiner for the Certified Professional Technical Program (CPTC) and as Director-at-Large on the STC Board of Director. He chairs the Technical Communication Body of Knowledge (TCBOK) project and is Faculty Sponsor for the STC Texas Tech University Student Chapter. He is author of* Web Development: A Visual-Spatial Approach, Writing for the Internet: A Guide to Real Communication in Virtual Space, *and* The Agile Communicator: Principles and Practices in Technical Communication. *He has published material on a wide range of topics, including instructional design, content strategy, hypertext theory, online publishing, and visual communication. Previously, he worked in industry as a technical writer, editor, Web developer, and program director for ten years for the U.S. Army Corps of Engineers. He has been a member of STC since 2000.*

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Written Communication

By ALAN HOUSER | *STC Fellow*

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I RECENTLY LISTENED to a podcast about jury instructions. These instructions guide the jury in how to properly evaluate testimony and evidence presented during the trial, and how to deliberate to reach a verdict.

Unfortunately, these instructions are often so full of legal jargon and obscure language that jurors find them confusing, not enlightening. Given the importance of the juror's task, some jurisdictions are rewriting jury instructions in plain language. The results have been encouraging.

The podcast highlighted the importance of clear written communication, in audience-appropriate language, to support readers in performing tasks or successfully using products and services. Mastery at the CPTC Foundation level requires knowledge and understanding of concepts and techniques for developing clear, effective written communication, that also meets requirements for global audiences and translations. This article details some of the principles you must know to achieve the CPTC Foundation certification.

Guidelines for Writing Plain Sentences

Clear writing starts with clear, plain sentences. Richard Johnson-Sheehan provides eight guidelines for writing plain sentences. I often use these guidelines myself when writing or editing. You can use these guidelines to untangle opaque writing and turn it into plain, clear prose.

1. Make the subject of the sentence what the sentence is about. Readers should be able to identify the subject of the sentence. Opaque prose often hides the subject in an object or subordinate clause.
2. Use the "Doer" as the subject of the sentence. Would a sports writer ever write "The ball was thrown by her?" The actor should generally be the subject of a sentence.
3. Use a verb to express the action, or what the doer is doing. Action verbs form the basis for clear, direct sentences. Sentences based on forms of *to be* (e.g., *is*, *are*, *were*) are generally more verbose and less clear.
4. Put the subject of the sentence early in the sentence. Don't defer the subject with lengthy subordinate clauses. Clear, direct sentences will put the subject early in the sentence.
5. Eliminate nominalizations. Nominalizations are verbs turned into nouns, and are especially common in business and technical jargon. For example, decontamination (n) vs. decontaminate (v). Nominalizations result in longer sentences, with weaker verbs than equivalent sentences written with the original verb forms.

Johnson-Sheehan notes that first drafts are often filled with nominalizations, because we tend to think in terms of people, places, and things (all nouns). But on subsequent drafts, pay attention to nominalizations and convert them to action verbs.

6. Eliminate excessive prepositional phrases. By specifying relationships between objects, prepositional phrases are invaluable in technical communication. However, multiple consecutive prepositional phrases quickly turn plain language into confusion.

   Writers often use too many prepositional phrases, especially when writing highly technical material. Untangle your strings of prepositional phrases to turn ambiguous, confusing prose into clear technical communication.
7. Eliminate redundancy in sentences. Can an item be singularly unique? Can a person be unexpectedly surprised? Can a resource be thoroughly depleted?

   In each case, the adverbs *singularly*, *unexpectedly*, or *thoroughly* provide no additional or nuanced meaning over the single adjective. It is sufficient to say that an item is *unique*, a person is *surprised*, and a resource is *depleted*.
8. Write sentences that are "breathing length." How long should a sentence be? A good writer will vary sentence length, although long sentences are more likely to confuse the reader. Johnson-Sheehan recommends that sentences be "breathing length." If you read a sentence out loud, and need to pause to inhale before you finish the sentence, the sentence may be too long.

Effective Writing Techniques for Websites

If you are writing for a website, plain language is especially critical. Websites bring their own challenges over other publishing formats. Websites present enhancements for our readers (navigation, search, linking) and challenges (constrained screen size, scrolling) compared to print. Johnson-Sheehan recommends the following techniques for website writing:

- Keep sentences short. While "breathing length" may be a reasonable guideline for sentences in print publications, sentences on websites should be shorter, on average, than sentences written for print publication.
- Keep paragraphs short. Paragraphs on websites should typically contain only a few sentences, to support readers who scan the website content to find the information they seek.
- Links should reflect titles. When writing links, be sure the text of the link matches the title of the target page.
- Create a consistent tone. The tone, or style, of the website should match the content. An e-commerce website should probably use a persuasive style. A medical website might use a plain style when describing symptoms, but use a persuasive style when encouraging readers to see a doctor.

Website Writing for Global Audiences

Because a website visitor can come from anywhere on the globe, writers for websites must be especially aware of the needs of a multinational audience. Johnson-Sheehan provides several tips for writing for transcultural readers.

- Use common words. Slang and business jargon tend to be cultural and meanings can change quickly. Favor common words with stable definitions.
- Avoid clichés and colloquialisms. Do you think your idea is a home run? Your international readers who are not familiar with baseball may wonder why your idea causes people to run home.
- Avoid cultural icons. Use symbols, particularly symbols that may have a political or religious significance, sparingly and only when necessary.
- Minimize humor. Humor is highly cultural and notoriously difficult to translate. Humor in one culture may not be funny, and may even be offensive, in another culture. Use humor with extreme caution.
- Translate your website. To provide the best possible experience for your international audience members, translate your website into the languages of your target visitors.

Other Components of the Written Communication Core Competency

The CPTC Foundation certification also requires knowledge and understanding of the following additional concepts and techniques for developing clear, effective written communication:

- Writing effective paragraphs
- Types of sentences in paragraphs
- Plain versus persuasive style: characteristics of each; when each is appropriate
- Techniques for writing plain paragraphs
- Techniques for writing in a persuasive style

You can learn more about each of these areas in the *Certified Professional Technical Communicator (CPTC) Study Guide* and the Johnson-Sheehan textbook.

Read Alan's bio on page 10.

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Certified Professional Technical Communicator (CPTC) Study Guide, Society for Technical Communication, see *https://www.stc.org/certification/* for current URL.

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Visual Communication

By JAMIE GILLENWATER | *STC Senior Member*

BEFORE WE READ the first page of a document, we assess the quality based on the visual design. Effective design helps to guide the reader through the document so they may quickly find the information they need.

Designing the document is the fourth phase of technical communication development, after planning and researching, organizing and drafting, and improving the style, but before revising and editing the document.

Using Design Principles

The visual communication core competency includes a variety of methods for designing information to guide your readers. The techniques include balance, alignment, grouping, consistency, and contrast.

Balance

When designing a document, it is important to balance pages. This means that design features should offset each other so that the top is not heavier than the bottom and the left and right are balanced. To design for balance, keep in mind that items on the top of the page weigh more than items on the bottom. Likewise, items on the right are heavier than the left. Color makes objects heavier, as do irregular shapes. Certain design elements weight more than others. For example, a picture is heavier than a block of text.

What techniques can you use to ensure visual balance in your communications? Consider using a grid system for design. This grid should specify the number of columns, headers, footers, and the size of the page. Then you can use this grid to determine the best place for images, graphics, pull-out quotes, and text.

Design Principles in *Technical Communication Today*

- Balance, pages 447–455
- Alignment, pages 455–456
- Grouping, pages 456–461
- Consistency, pages 461–466
- Contrast, pages 466–467

Alignment

Alignment signals visual relationships. For example, vertical alignment signals hierarchy based on the indentation from the margin. Vertical alignment establishes lists and heading levels as they align throughout the document. Horizontal alignment connects objects based on the distance from the top and bottom of the page. This alignment helps establish items as a unit.

To incorporate alignment as a design strategy, consider indenting subheadings and lists. Ensure related elements have the same spacing from the top of a page. For example, the beginning of a technical article should align horizontally with the related image.

Grouping

Our readers naturally associate items that are placed near each other as a unit. Grouping allows us to leverage this tendency by designing information to show relationship.

To effectively group information, use white space to frame items. Headings are an effective technique for signifying a new group of information. Also, consider parallelism in the sentence structure to create consistent wording patterns.

Consistency

Your readers need to know what to expect throughout your documentation. You can meet their needs by consistently designing the information. Consistency means making design choices early in your design process and using the same design choices throughout the entire document, series of documents, or website. Consistency not only makes it easier for your readers to navigate your information, but can also strengthen your brand when used across multiple channels.

To check whether you are creating visually consistent documents, ask yourself a few questions: Do you consistently use the same font, color, and size for headings of the same-level? Do you consistently use the same grid design through your entire document? Do you consistently place elements, such as page numbers, on each page? Do you consistently use the same bulleting and numbering schemes?

Contrast

The goal of contrast is to ensure your readers can quickly identify different elements and where they fall within a document hierarchy. Design your communication so that readers can quickly and easily see the differences in the communication. Then uses those differences consistently throughout your communication.

You can use a variety of methods to add contrast to your documents. The methods include using different colors, shades, highlights, and font sizes. These techniques mean that headings should never be confused for sub-headings. Navigation text shouldn't be confused with body text. And graphic labels shouldn't be confused with standalone quotes.

A word of caution: Do not use too much contrast. Consider using two fonts, often one serif and one sans serif. Choose only a couple of colors to represent your brand, and then use these colors for icons, headings, and other areas of emphasis.

Considering Transcultural Design

Depending on your audience, you might need to create documentation for multiple audiences throughout the world. Richard Johnson-Sheehan defines this as transcultural design. Transcultural design can be divided into culturally deep documents and culturally shallow documents.

Culturally deep documents reflect the culture's language, symbols, and conventions. Culturally shallow documents follow Western design conventions, but make minor adjustments for the target culture, such color, people, symbols, and direction of reading.

If you don't have the budget for culturally deep document design, follow best practices:

- Keep human icons simple.
- Use hand signals carefully.
- Avoid culture-specific icons.
- Avoid religious symbols.
- Avoid animal symbols and mascots.

Selecting Graphics

In addition to the five design principles and transcultural design considerations, you must be able to select and use appropriate graphics to reinforce your text. To do this, follow four guidelines.

A graphic should tell a simple story. Your graphic does not need to convey the entirety of your information, but it should tell a simple story. Can you reader immediately identify that your line graph shows how temperatures have changed over the last century?

A graphic should reinforce the written text, not replace it. Keep in mind that your graphic should never provide the only explanation of the information. The text should detail the information, using the graphics to provide a simple and clear picture.

A graphic should be ethical. You've likely heard Evan Esar's famous quote about statistics: "The only science that enables different experts using the same figures to draw different conclusions." Graphics can be manipulated in a similar fashion. Consider your scales relative to the information you are conveying. Is it reflecting the information ethically?

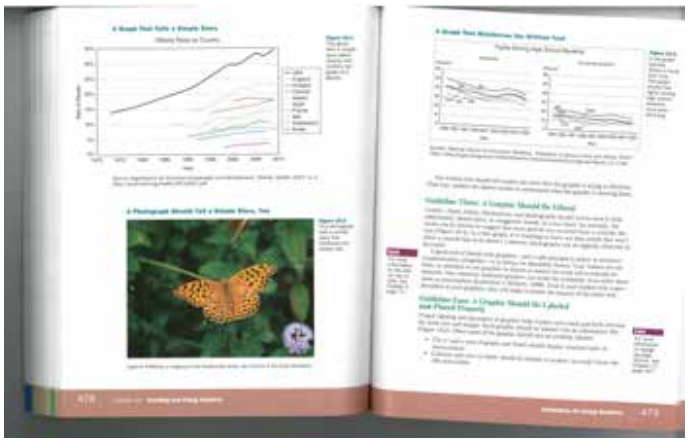

Figure 1. A Graph that Reinforces the Written Text

The Story to be Told	Best Graphic	How Data Are Displayed
"I want to show a trend."	Line graph	Shows how a quantity rises and falls, usually over time
"I want to compare two or more quantities."	Bar chart	Shows comparisons among different items or the same items over time
"I need to present data or facts for analysis and comparison."	Table	Displays data in an organized, easy to access way
"I need to show how a whole is divided into parts."	Pie chart	Shows data as a pie carved into slices
"I need to show how things, people, or steps are linked together."	Flowchart	Illustrates the connections among people, parts, or steps
"I need to show how a project will meet its goals over time."	Gantt chart	Displays a project schedule, highlighting the phases of the work

Figure 2. Choosing the Appropriate Graphic

A graphic should be labeled and placed properly. To ensure your graphic is easy to interpret, you should display units of measurement clearly, label columns and rows or axes, identify important features, and identify the data source for each graphic.

As you select the graphics for your communications, consider the story that needs to be told, along with the type of data you have available for display. Never attempt to manipulate your readers by using misleading graphics. Provide information in a clear and easy-to-interpret graphic to motivate your readers.

Mastering Visual Communication at the Foundation Level

To earn the Foundation-level CPTC, you must be able to recall and recognize important concepts and terms from *Technical Communication Today*. For the visual communication core competency, these concepts and terms include:

- Five principles of visual design
  - Balance
  - Alignment
  - Grouping
  - Consistency
  - Contrast
- Transcultural design
  - Culturally deep considerations
  - Culturally shallow considerations
    - Keep human icons simple.
    - Use hand signals carefully.
    - Avoid culture-specific icons.
    - Avoid religious symbols.
    - Avoid animal symbols and mascots.
- Four guidelines for using graphics in documents
  - A graphic should tell a simple story.
  - A graphic should reinforce the written text, not replace it.
  - A graphic should be ethical.
  - A graphic should be labeled and placed properly.
- Graphic types, including best use
  - Line graph
  - Bar chart
  - Table
  - Pie chart
  - Flowchart
  - Gantt chart
- Design choices
  - Formats
  - Fonts
  - Graphics
- Presentation design

JAMIE GILLENWATER *is a skilled technical communicator with more than a decade of experience in the communications industry. She is an independent consultant with clients in oil and gas, pharmaceutical, and real estate industries. She leads a variety of courses, including business writing for federal employees, training for the Certified Professional Technical Communicator certification exam, and Adobe InDesign courses as well. Jamie is also the Career and Leadership Track Manager for the 2017 STC Summit. She is an incoming member of the STC Nominating Committee. Visit Jamie's website at* www.transcendtext.com.

RESOURCES

For additional study on visual communication, consider the following resources:

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Reviewing and Editing

By KATHERINE (KIT) BROWN-HOEKSTRA | *STC Fellow*

BECAUSE TECHNICAL COMMUNICATION is iterative, the review and editing processes are key steps in maintaining quality control during the content lifecycle. Most content development projects contain at least one review and editing step, and many projects contain all four of the levels of editing mentioned in Chapter 19 of *Technical Communication Today,* 5th edition, by Richard Johnson-Sheehan:

- Revising
- Substantive Editing
- Copyediting
- Proofreading

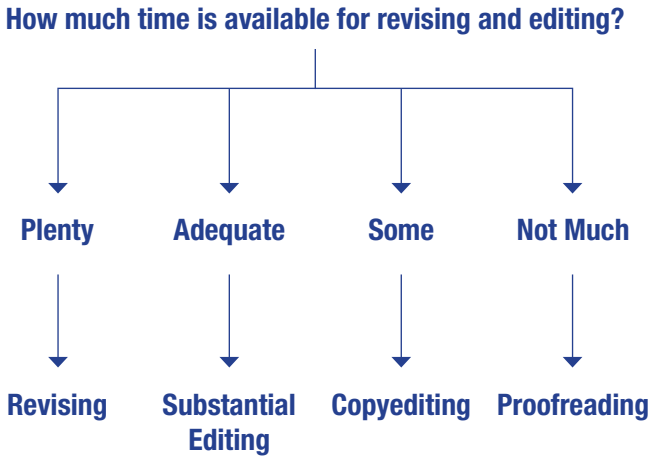

Figure 1. Johnson-Sheehan's Levels of Edit, which are similar to the nine levels of edit published by JPL Labs back in the 1970s and consolidated into five levels in the 1990s, but are more compressed and updated for modern technology.

Content Lifecycle: Reviewing and Editing

Reviewing and editing happen at several points in the content lifecycle. Which level of edit you use depends on the stage of the project, the time you have available, the purpose of the content, and the level of quality needed. For example, you will spend significantly more time and effort on an instruction manual that will be used to calibrate life support systems on the International Space Station than you would on an email to a coworker.

Revising

As you begin to develop the content, you typically review and rewrite it several times before sending it through the formal review and editing process. During this phase, you are checking your assumptions, verifying that you have all the information you need, ensuring that your content model makes sense for the context, audience (called readers in the book), and purpose, and making sure that the scope and subject of the content are at the right level. If you are creating global-ready content, you will also incorporate those principles into your writing and editing.

This task typically happens at the beginning of the process and often does not have a formal procedure associated with it. Instead, each writer develops a process that works for them, within the requirements of the style guide and content model. Early in your career, you might be assigned a mentor who can help you with this process. Once you have a few years of experience, you are typically expected to handle this on your own and to ask for input when you need it.

In addition, some revision will occur as you incorporate comments from each of the other editing levels.

Substantive Editing

Substantive editing is often the first formal review of your content and might involve both subject matter experts and a senior editor on your team. During this step, you are making sure that the content is complete and technically accurate, that the organization supports the purpose and facilitates clear communication, and that the design makes sense for the context and needs of the reader, as well as meeting corporate guidelines. You also often identify graphics that support the content and check that the content fits your content model.

In *Technical Communication Today,* the review process is called document cycling, which is just another way of describing the process of letting others comment on your work before it's released.

Copyediting

Copyediting typically happens once you are happy with the structure and overall content (see Figure 2). With this step, you want to check consistency in headings, graphics, tables, and writing to make sure that the content makes sense at a paragraph and sentence level, and conforms to the style and terminology guidelines. For global-ready content, the editor looks for wording or content that might cause a problem for the localization team.

Some companies use a team editing process for this step, while others employ an editing team. During this step, it's a

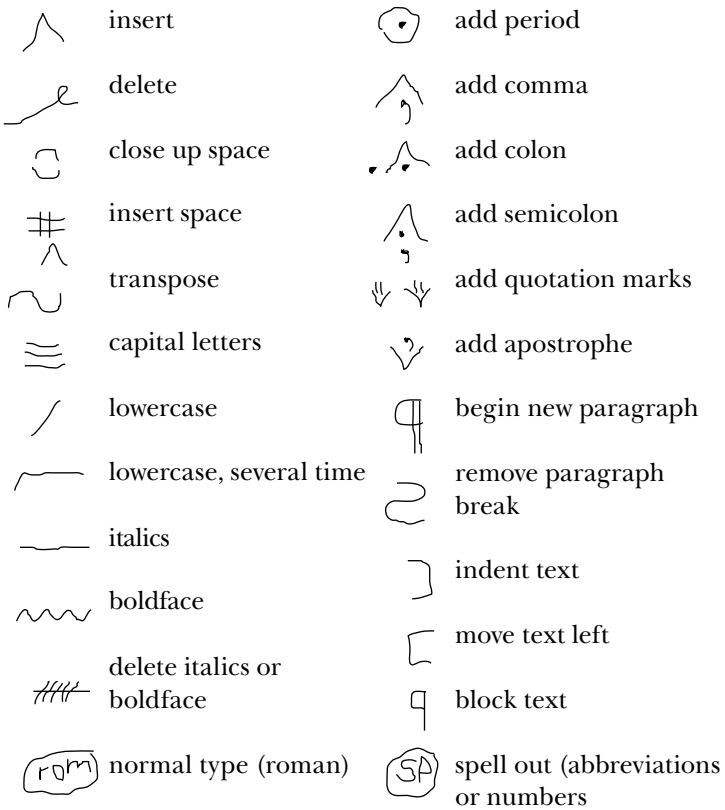

Figure 2. Copyediting symbols

good idea to track changes, so that you can easily revert to the original text and also so that you have a record of the change in case there are questions later. Tracking changes is especially important in regulated industries.

Proofreading

Proofreading is the final check before publication. At this stage, the editor should not be making major changes to the text, but rather looks for grammar, punctuation, spelling, and typographical errors. In some cases, this might also encompass a production edit to verify that the content publishes correctly.

For global-ready content or content that follows a controlled language specification, this step can also include using automated tools that verify that the content follows the strict terminology and grammar guidelines.

Usability Testing

Technical Communication Today touches on usability testing as part of the review and editing process. While usability testing is a discipline in and of itself, it is important for you to understand the basic types of tests:

- **Read-and-locate tests:** Participants must find five to seven pieces of information in your content. Typically, you establish a hypothesis about how long is should take to find the information. Then, you test the participants' ability by videotaping them as they search and timing them. Based on the results, you might re-organize or clarify your content.
- **Understandability tests:** First, you establish your expected results by documenting your content's purpose, main point, and three major pieces of information you expect the reader to retain. Then, the participants read the content, usually under a time limit to simulate actual conditions. After taking away the content, you test the participants' ability to recall what they read.
- **Performance tests:** For these tests, you would create a scenario that requires the participants to use your content in context to perform an action, while you videotape them. Often, participants are asked to talk through their thought processes as they try to perform the task. This test can provide valuable insight not only about the content, but also about the product design.
- **Safety tests:** These tests can be challenging because you can't ethically put participants at risk. The purpose of this type of test is to ensure that the warnings and cautions are adequate and to identify any areas where the participant could have a problem.

While you can conduct usability tests without a lot of special equipment, participants in usability tests should be representative of actual readers or users. Otherwise, your results might not be valid. When moving into a new market internationally, you might want to conduct usability tests to ensure that your product and content meet local expectations.

Mastery at the Foundation Level

At the CPTC-Foundation level, you should be able to name the levels of edit and the types of usability testing described in Chapter 19 of *Technical Communication Today*. You also need to understand why they are important to the content lifecycle and when you would use each one.

One of the challenges that experienced technical communicators have with taking the Foundation exam is that the terminology used in the book doesn't always match the terminology used in the workplace. For the Foundation exam, make sure you understand the book's terminology because that is what is used on the test.

Beyond the Foundation Certification

The specific criteria for the Practitioner and Expert certifications are still being defined. However, the certification process will expect you to demonstrate mastery of best practices for conducting reviews, for editing, and some practical experience with conducting simple usability tests.

KIT BROWN-HOEKSTRA *is an STC Fellow and former Society president, accredited CPTC trainer, and principal of Comgenesis, LLC. She speaks at conferences worldwide and provides training on a variety of topics related to technical communication and localization conferences. She is currently editing* The Language of Localization *for XML Press, and plans a CPTC training workshop in Denver, CO, this summer. Her blog is* www.pangaeapapers.com *and her website is* www.comgenesis.com.

RESOURCES

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Content Management

By BETH AGNEW | *STC Associate Fellow*

IN OUR ROLE as technical communicators, we create, edit, and manage content for a variety of information products. We often work as part of a team, and may be on multiple teams at once if we're working on concurrent projects. At the Foundation level, Content Management focuses on teamwork and using websites to develop and manage information products. Competency in Content Management ensures projects are delivered to specification, on time, and that supporting tools such as websites and social media contain appropriate content.

Teamwork

Whether you're part of a documentation team, or the technical writer assigned to a product development team, it is important to understand the characteristics of teams and how they function. Grouping people together on a team to collaborate, create, produce, and deliver to deadline isn't merely a matter of making sure they attend the same meeting. It requires communication and some strategies for overcoming the inevitable roadblocks.

In 1965, Bruce Tuckman's research into group dynamics yielded a four-stage model of how most teams learn to collaborate: Forming, Storming, Norming, and Performing. He added a fifth stage, Adjourning, in 1970, believing that teams need closure before reforming into a new project team.

Forming

At the Forming stage, team members may be meeting each other for the first time. They start learning about each other's strengths and abilities. The team's mood is cautious optimism, and a good first activity is to engage in strategic planning for the project. This preparation phase, in which the project's objectives and outcomes are determined, lays a solid foundation for future work together. The team identifies each member's role and responsibilities so that tasks can be assigned.

Team roles usually allow members to contribute their particular expertise to the group's work. On a team of technical writers, roles could include the co-ordinator who keeps things on track, researchers who gather information, the editor who organizes the document and ensures it adheres to style guidelines, and the designer who handles layout and visuals, including images and charts.

Once roles are identified, the team considers the project calendar and maps anticipated tasks and milestones to the project's timeline to ensure the deliverable is completed on time. Some attention may also be paid to the project's budget if necessary. The project calendar helps everyone on the team know what is due, when, and who is responsible for completing each task.

The project calendar and individual assignments contribute to the work plan, which is the collective vision of the project. A written work plan lets every team member see the same thing: a specific plan for what is to be created, when the tasks will be finished, and who is responsible for each part. Without a concrete work plan, team members may develop very different ideas about what needs to be accomplished.

The final step in the project planning activity is to agree on how conflicts will be resolved. Tuckman pointed out two aspects of conflict on teams—it is normal, and it is inevitable. Determining in advance how divergent opinions will be handled allows the team to keep moving forward, instead of becoming mired in dysfunctional working relationships. Conflict resolution strategies are important for morale and team progress.

Storming

Agreement on how to resolve conflicts occurs just in time for the next stage of team development: Storming. Friction between team members must be overcome through negotiation, compromise, and adapting to each other's work style. People don't always work the same way, and may have different expectations of their teammates. Inevitably, someone always feels they are doing more than their share of the work; people may be competing for resources or recognition, or they have concerns about the work plan or their ideas not being heard.

Using the agreed-upon conflict resolution techniques, the team can foster open discussion, allowing each member to voice their concerns and feel they have been heard. They may vote, come to consensus, or appeal to the supervisor to resolve the issue. When informal conflict resolution fails, mediation can help the team get to common ground. Mediation can be successful when the focus remains on the principles or facts of the problem at hand, and not on the personalities involved.

A selected mediator has each party state their position, and the points of disagreement are identified. Disputes arising from poor communication or minor areas of contention may be resolved quickly just by allowing each side to clarify their ideas for their teammate. When the conflict runs deeper, issues are prioritized, and negotiated one by one, until there is agreement that both sides can accept.

When an individual on a team is not doing their share of the work, and attempts to change this behavior are unsuccessful, removing them from the team may be the only way to keep the team on track.

The Storming stage is difficult for many teams, even when members have worked together before. New projects impose new requirements, but once through the conflict, the team enters the Norming stage.

Norming

Getting past disagreement allows team members to trust each other and settle into their roles. Instead of paying attention to their teammates, they focus on the project's tasks and objectives. Issues that arose during the Storming stage may indicate needed changes to the project plan, and those adjustments can be made along with any reallocation of tasks or revisions to the timeline.

Virtual teams may have had a particularly rough time during the Storming stage, as it is more difficult to resolve conflict with people who are at a physical distance as well as an ideological distance. Geographic and cultural differences also contribute to tension among team members. More attention needs to be paid to communication when working on a virtual team. In addition to the work plan, the virtual team should have a plan for keeping in touch with each other, via email, teleconference, and video conference.

Good communication among members of a virtual team eliminates uncertainty. It builds trust and respect. Set regular times for connecting to talk and bring each other up to date with the project. It is also important to complete tasks on time and deliver what is required. Teammates align quickly with each other and with the project when they are confident that everyone is united and working diligently to achieve the project outcomes. A confident, capable team enters the performing stage when they are comfortable with each other and with their roles on the team.

Performing

A performing team has overcome obstacles and settled into a smoothly-operating rhythm of work, such that they can now focus on quality improvement. They regularly provide constructive feedback to each other, and may have developed metrics to gauge both performance and progression. Team performance reviews also help to improve the quality of the team's work output.

While unexpected events in the project life cycle may force the team back into the Norming or Storming stages, they soon get back to performing effectively together. They have become a productive group. They deliver the project according to plan, and learn from the experience.

Collaboration and teamwork is integral to all assignments carried out by a technical communicator at the Foundation level.

Managing Content on the Web

Beyond knowledge of team dynamics and collaborative processes, Foundation competency in Content Management

includes Web content development and the uses of Web-based tools in work settings.

Increasingly, people are turning to the Web for their communication and information needs. Teams, whether virtual or co-located, collaborate using web-based groupware, wikis, and audio/visual communication sites. Web-based publishing is a huge market, ranging from product descriptions on retail sites to how-to blogs and company profile sites. Everyone feels the need to have a Web "presence."

In the early days of the World Wide Web, developers created Web pages and often contributed the content as well. As the importance of Web-based information grew, companies soon realized that pretty pages that loaded quickly weren't enough to satisfy web visitors. Site usability, navigation, and the correct expression of messages on websites needed the contribution of technical communicators to write and manage that content.

Foundation-level knowledge of websites includes recall of the basic features of a website. The homepage, or main page of the website, identifies the site's subject and purpose. It also forecasts the overall site structure, usually with navigation pages that help readers search for specific keywords, access menus, and find information using a site map.

The site's node pages for different topics or categories of information are accessed by top-level menu links and lead to individual pages containing facts and details. A splash page, which users may encounter before the homepage when they first land on the site, is, well, splashy, with animations or images that entice readers to register to use the site, or access the site in a different language.

Existing in hyperspace as it does, a website can be a vast landscape for a reader to explore. Good website navigation includes consideration of breadth as well as depth of content. As a guideline, a maximum of three links should take readers to the most important information, with it taking no more than five clicks to get to 80% of the site's content. Seven links should be sufficient to provide access to anything the reader wants to find on the site.

Technical communicators are often tasked with setting up and providing content for various workplace websites including social networks, wikis, and blogs. Your responsibilities may also include creating video and podcasts for customer support or as part of a company's marketing efforts. Wikis let multiple users add and modify content, so they are effective tools for keeping documentation up to date. Facebook, LinkedIn, and Twitter facilitate getting feedback from users but must be carefully managed to maintain the company's reputation. Blogs convey information on a platform that is easy and quick to update.

Generating Ideas

Search engine optimization rewards fresh content with higher rankings on Google and other search engines. Consequently, the demand for Web content that changes frequently imposes a requirement to continually generate ideas. Logical mapping or "mind-mapping," brainstorming, or outlining are good techniques to capture ideas. Freewriting, also known as a "brain dump," lets you get a free flow of ideas down without editing, and is later refined and shaped to suit the message's purpose. Asking the "journalist's questions" of who, what, when, where, why and how can also yield sufficient information or at least topics for further research.

Mastery at the Foundation Level

Competency in all of these tasks and techniques are expected of a Foundation-level technical communicator in the workplace. Many of us do so much more, and those skills and work experiences then contribute toward qualifying for the Practitioner level of CPTC certification.

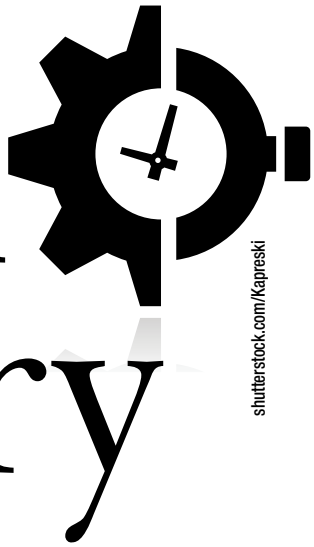
The Foundation exam will require you to recall key terms and facts about content management. With that knowledge, you are well prepared to assist your client or company with creating and managing websites and other work in a collaborative work atmosphere.

Without formal training in technical communication or substantial work experience on your résumé, achieving the CPTC designation demonstrates to an employer that you've met certain professional standards. If you aspire to salaries comparable with other certified professions (such as a Project Management Professional, Professional Engineer, or Microsoft Certified Systems Engineer), the independent endorsement of your skills via CPTC gets you that much closer to being recognized as a vital part of a company's mission and practice.

For someone with a significant history of successful technical communication work, CPTC certification provides personal satisfaction as well as formal recognition of the professional development you have undergone.

BETH AGNEW *is an accredited trainer and one of the first to achieve CPTC certification, which she continues to hold at the Expert level. She is a professor, and co-ordinates the post-graduate Technical Communication program at Seneca College in Toronto, Canada. Beth is an STC Associate Fellow. Seneca College is a CPTC accredited training organization, providing Foundation training to graduates and working professionals. For information on upcoming courses, see* http://senecatechcomm.com/certification.

Production and Delivery



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By BETH AGNEW | *STC Associate Fellow*

THE CULMINATION OF our work as technical communicators is to produce and deliver information products that meet business goals. While those activities occur at the end of the project life cycle, initial work is done at the beginning to determine the outcomes and deliverables for the project. What are we creating? Why are we doing it? How will we know when we're done? How will we know we've succeeded? On a project, you need more than good intentions and an idea of where you'll end up.

Explorer Christopher Columbus had some good intentions. At the start of his voyage, he thought he'd get to India. For a fellow who didn't know where he was going, didn't know how to get there, and didn't know where he was when he arrived, he came up with a decent deliverable by landing in North America. Attaining the business goal of a trade route to India, however, completely missed the mark. His chances of success would have been much better with some specific objectives, mapped to project activities that would produce expected deliverables.

Part of our value to a company or client is to think things through to conclusion. That means ensuring the documentation or services we provide match the intended outcomes that were identified at the beginning. Stated outcomes are targets for all your work on a project. They inform the processes of technical communication, and help you focus on activities that contribute to the deliverables.

Achieving Outcomes

Working toward specified outcomes provides a predictable pathway to completion. In a business climate that celebrates lean, agile, and efficient resource management, knowing precisely what to do to meet an outcome keeps you on track and reduces wasted effort.

When concrete results are expected from your work, your deliverables become visible and measurable—much easier for teammates to understand, and your clients to value. Precise objectives are more easily articulated and shared, especially when you are collaborating with subject matter experts or determining end users' needs.

Outcomes also help you show progress during the life of the project. They provide ways to measure the effectiveness of the work you're doing, including time and budget projections, identification of quality targets, and estimates for use of resources.

For example, a business goal may be to "reduce technical support calls by 20% over the next 6 months." The technical communicator's responsibilities on this project could include improved documentation, improved usability on the product(s) in question, and additional content for the company's support website. Project outcomes could be an updated user guide, a completed interface review, and an FAQ for the website. Those three deliverables are then tools the company can use to achieve the business goal.

When the work products are complete, deliverables are assessed against the outcomes. Any diversions from the original plan can be analyzed and understood, with knowledge captured for future quality improvement. The lessons learned become either best practices or cautionary tales for subsequent projects.

Mastery at the Foundation level

By affirming your knowledge of production and delivery through Foundation certification, you ensure what you've produced serves the needs of your users and your company.

Read Beth's bio on page 25.

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Career Advice

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Dear TC Manager:
I've gotten passed over twice for a promotion that (on paper at least) I'm highly qualified for. I'm not sure how to approach my manager to find out what I need to do differently. How should I approach this situation?
—Qualified but Overlooked

Dear Qualified but Overlooked: Remember, there is only one *you* and that is your competitive advantage! You got hired into the job you have now because you were the best candidate for the position with your combination of skills, attributes, personality, potential, and a unique blend of values and abilities.

Now take a good at who you really are. Do you feel free to be yourself at work or do you put on an act, pretending to be what you think they want you to be? Does your manager know you want to be promoted? If not, you need to have that conversation about career development and make it clear that moving up to higher levels of responsibility and recognition are part of your plan. Ask your manager if he/she sees that, too. Have you actively pursued promotion within your company or have you been expecting that it would come to you?

Keeping your head down and doing a good job will likely lead to raises and perhaps bonuses, but you need to do more to be promoted. Are you looking for and taking advantage of all opportunities to showcase your strengths and how you can help build value for the company? Are you getting the opportunity to improve your weaknesses and to enhance your skills and experience? If the answer to these last two questions is no, then you might be in the wrong department, at the wrong company, or maybe in the wrong industry for you. (Yes, your career ladder could possibly be up against the wrong building!) Or you may have a perception problem.

Do you know how others (particularly your manager and those at least one level

Ask a Tech Comm Manager is an advice column geared toward answering all those questions you have, but might be uncomfortable asking. We glean the questions from social media, forums, and most importantly, from you, dear reader. If we don't know an answer, we will interview experts and get information for you. Send us your questions to *kitbh.stc@gmail.com* or tweet them to *@kitcomgenesis* or the hashtag *#askTCmgr*.

up) perceive you? This is critical. Perception is very important and is not always based on reality. It's important to understand how perceptions are formed and informed and to learn that you can manage and change people's perception of you. This is a marketing exercise that never ends. *You* are the product that you want people to *buy*. Perception is based on two things: what you can control (how you present yourself (the *real* you) – through dress, speech, and behavior, including social media presence) and what you can't control (the lens of the perceiver's prior experience with someone in your position or who even looks like you. This is the baggage of the beholder, and for goodness sake, don't pick it up!)

How do you know what perception exists about you? By getting direct feedback from co-workers, managers and leaders, family, and friends. If you are unsure, ask for feedback from fans and non-fans alike. Develop a good sense of how you are perceived and work on non-strength areas. A thorough self-assessment is key. Next, consider how you want others to describe you when you are not in the room? All major decisions about your career are made when you are not in the room—project assignments, promotions, compensation! Your manager's perception of you is likely the most influential in the company, but not always. Once you have some real data to work with, you can change the things you can control to help manage and change other people's perceptions of you.

Dear TC Manager:
What are the most important traits and skills for a technical communicator to have?

—Curious Young Professional

Dear Curious Young Professional:
Below are a list of traits and skills we recommend as the underpinning for good technical communication.

Traits:

- curiosity
- love of learning, fast learner
- flexibility and persistence
- ability to see both the big picture and the details
- positive attitude
- ability to make connections between disparate things and see how they fit together
- ability to rise above your personal worldview to understand how someone else might see a situation or product
- comfortable with technology
- self-starter
- proactive
- good interpersonal communication skills

Skills:

- writing/editing global-ready content
- project management
- understanding of structured authoring concepts and techniques
- time management
- basic understanding of usability/user experience
- basic understanding of design concepts
- research and analysis
- production
- audience analysis

Dear TC Manager:
I have a technical background and "fell" into technical communication several years ago. I'm now looking for a new job and am finding my lack of credentials to be holding me back. I don't really want to get another degree. What do you recommend?

—Looking for Credentials

Dear Looking for Credentials,
Check out professional certification through STC's Certified Technical Communicator Professional (CTCP) certification program! It's a three-tier program that designates successive levels of knowledge and mastery of technical principles and best practices.

The Foundation Certification focuses on knowledge of the field. To achieve the Certified Professional Technical Communicator Foundational designation, applicants demonstrate knowledge and understanding of best practices in technical communication by passing a test that covers the nine core disciplines. *Technical Communication Today*, 5th Edition, by Richard Johnson-Sheehan is the special edition for STC Foundation Certification and is the recommended study material. STC is offering the CPTC Foundation Exam Prep class as a two-day preconference workshop in National Harbor, MD, on 6–7 May 2017.

The Practitioner Certification will demonstrate mastery of applying best practices and leading others in their use. The achievement of the Certified Professional Technical Communicator Practitioner designation may consist of a written test and an evaluation of work product. The Expert Certification requirements will require a set of work products and expert interviews.

Depending upon your industry and area of expertise, other certifications may also be appropriate. STC members hold a variety of industry certifications, including Certified Scrum Manager (CSM), Project Management Professional (PMP), Certified Agile Practitioner (PMI-ACP), Certified Information Systems Security Professional (CISSP).