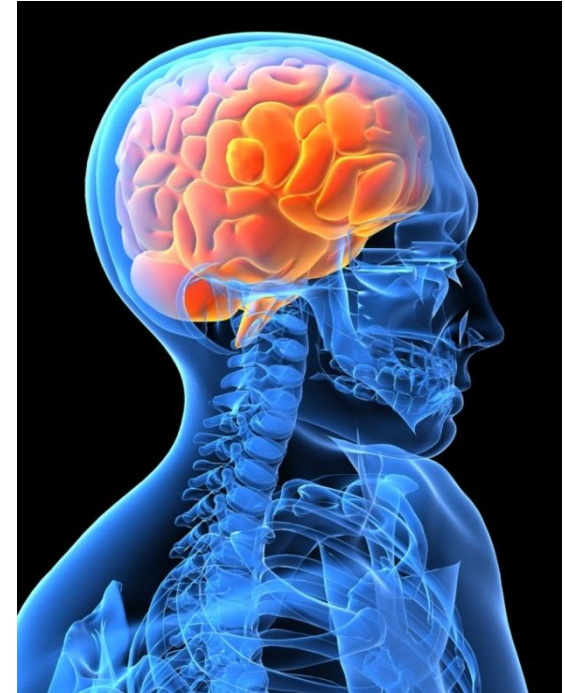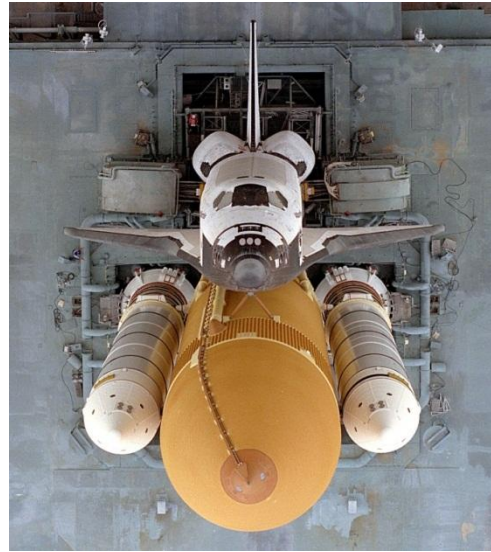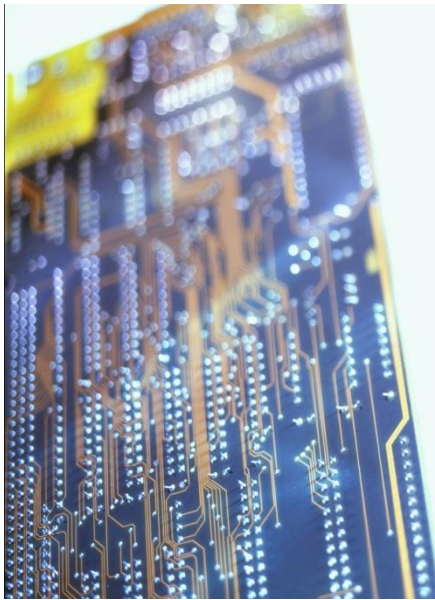# Technical Writing

What Makes a Good Technical Writer? Excelling in the Workplace
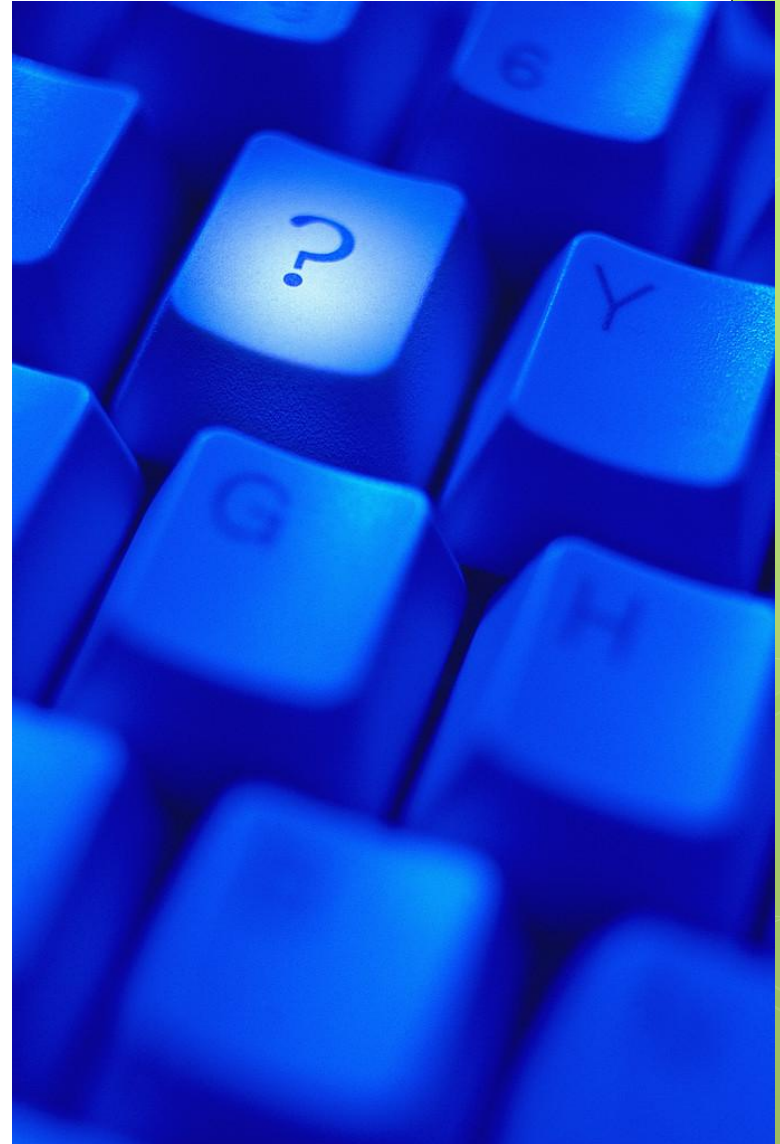
Andrew Rusnak

Good Writers Make Most Professions and Accomplishments Possible

A good technical writer or communicator:

There is a direct correlation between your ability to "language," your ability to read and interpret text of all manifestations, your ability to write, your ability to communicate orally, to present, and your ability to be successful in your chosen profession. The more you know about how your own mind works and how to develop and refine your language skills in the workplace, the more successful you will be. Good writers and communicators in the work environment are "go to" leaders.

What Makes for a Good Technical Writer?

A good technical writer or communicator:

- **Has Insight and Sagacity:** A good technical writer understands how his or her mind works, when to invoke analytical thinking, when to invoke imaginative thinking, how to recognize useful thoughts when they occur spontaneously and without invocation.

The goal is to transform data into information and information into insight.

—**Carly Fiorina**
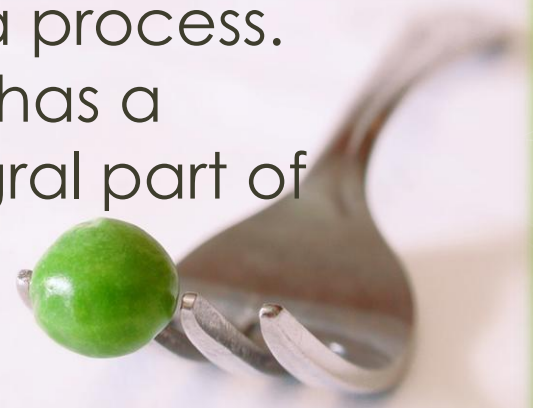
A good technical writer or communicator:

- **Uses Reality-Directed Imaginative Thinking:** A strong imagination contributes to working out objective scenarios and leads to sorting which facts, scenarios, and options are important and which are not, which options are possible and which are not.

Imagination is more important than knowledge, for knowledge is limited to all we know and understand, while imagination embraces the entire world, and all there ever will be to know and understand. **—Albert Einstein**

A good technical writer or communicator:

Is Psychologically Flexible and Adaptable: It's not about ego, it's about getting the job done. Learn to set yours aside and focus on objectives. "The job is the boss." Don't be a victim or scapegoat, maintain respect, but learn not to take things personally. You are not a robot or an empty vessel or one who simply transcribes a process. You are a "trained professional" that has a contribution to make. You're an integral part of the team's success.
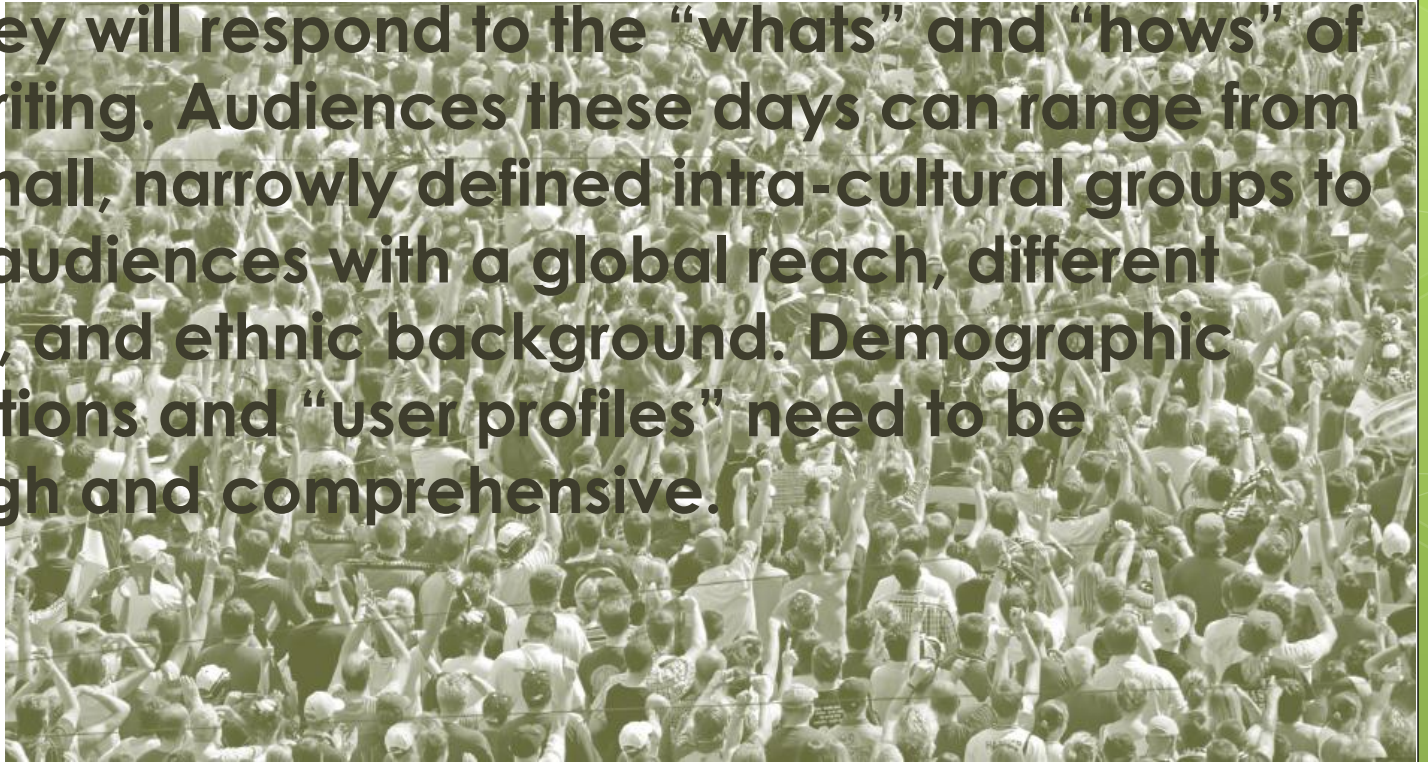
A good technical writer or communicator:

Is Socially Flexible and Adaptable: In order to be successful, interpret your work and organizational culture and the people who make it up to nurture a collaborative environment. Good technical writers are good networkers. They know they need others to help them get their jobs done. Be diplomatic.
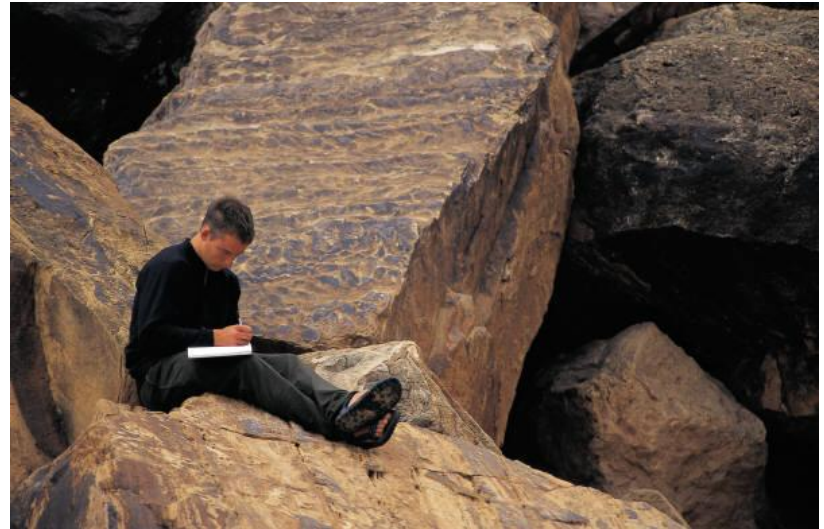
A good technical writer or communicator:

Is Able to Analyze Audiences: **It takes great insight to know how others think, what their needs are, how they will respond to the "whats" and "hows" of your writing. Audiences these days can range from very small, narrowly defined intra-cultural groups to larger audiences with a global reach, different culture, and ethnic background. Demographic evaluations and "user profiles" need to be thorough and comprehensive.**

A good technical writer or communicator:

- **Is a Strong Writer:** It's critical to understand the **principles of mechanics, grammar, narrative sequencing, and rhetoric. Rhetoric** is the art or craft of using language effectively and persuasively.

The time to begin writing an article is when you have finished it to your satisfaction. By that time you begin to clearly and logically perceive what it is you really want to say.

~Mark Twain

A good technical writer or communicator:

- **Must also understand other forms of communication logic.** In today's postmodern, digital world, reiteration, layering, associational logic, are important skills.

I believe scientists have a duty to share the excitement and pleasure of their work with the general public, and I enjoy the challenge of presenting difficult ideas in an understandable way.
—**Antony Hewish, British Radio Astronomer, Nobel Prize for Physics, 1974.**
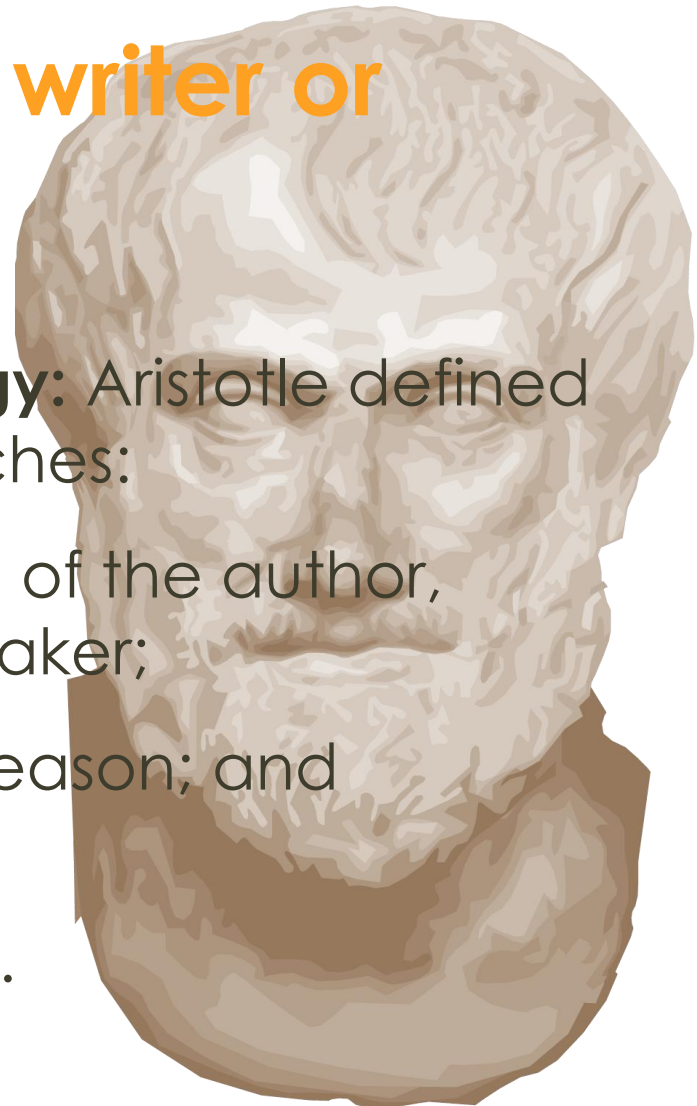
A good technical writer or communicator:

Understands Rhetorical Strategy: Aristotle defined three main rhetorical approaches:

Ethos – Relies on reputation of the author, based on character of speaker;

Logos – Based on logic or reason; and

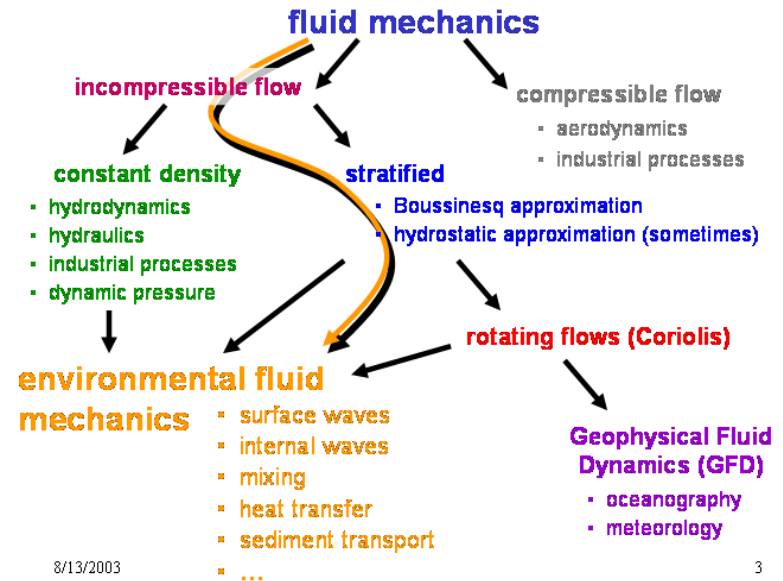**Pathos –** Based on emotion (advertisement/marketing).

A good technical writer or communicator:

- **Must be an Editor/Fixer Supreme:** It's very difficult to edit one's own work. Develop a process, learn to build in enough time in a project to set it aside for a prescribed period of time, then go back to it and edit it again. Learn proof and copy editors' marks and symbols.
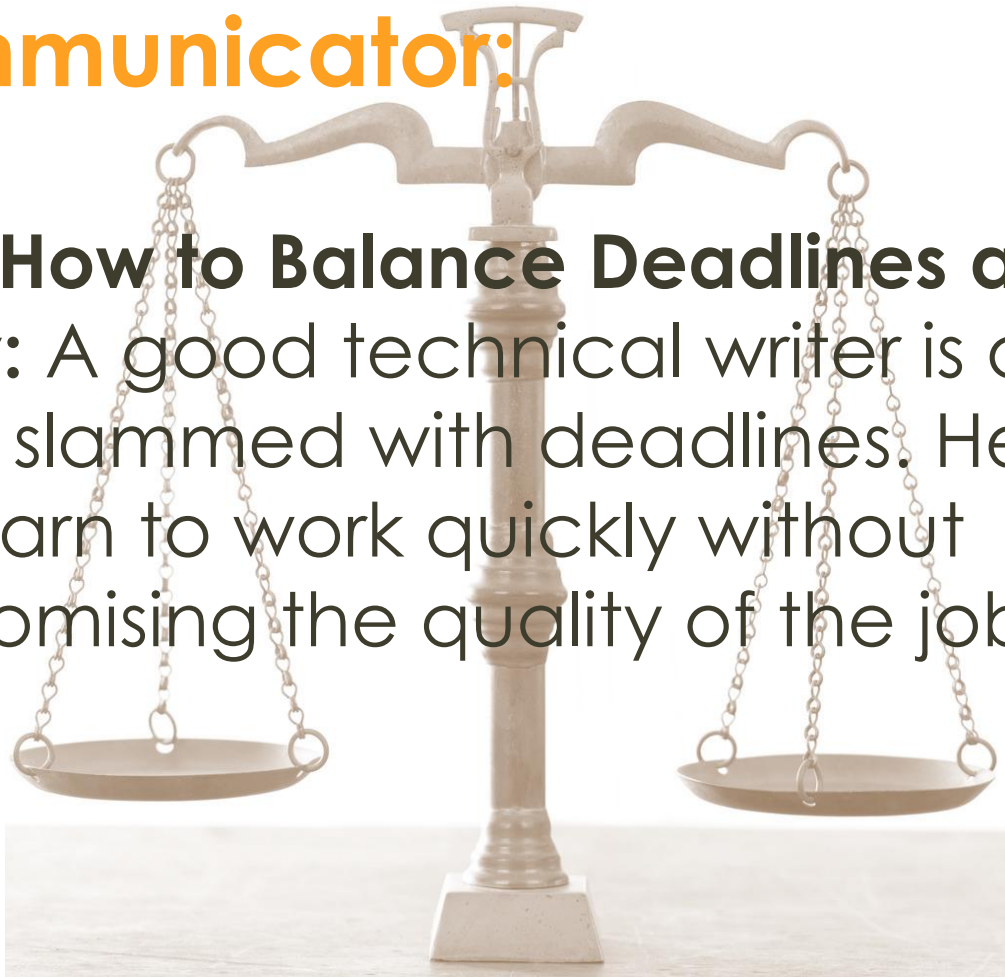
what is efm?

fluid mechanics

incompressible flow

compressible flow
- aerodynamics
- industrial processes

constant density
- hydrodynamics
- hydraulics
- industrial processes
- dynamic pressure

stratified
- Boussinesq approximation
- hydrostatic approximation (sometimes)

environmental fluid mechanics
- surface waves
- internal waves
- mixing
- heat transfer
- sediment transport
- ...

rotating flows (Coriolis)

Geophysical Fluid Dynamics (GFD)
- oceanography
- meteorology

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"The difference between the almost right word & the right word is really a large matter–it's the difference between the lightning bug and the lightning."
—Mark Twain

A good technical writer or communicator:

Knows How to Balance Deadlines and Quality: A good technical writer is almost always slammed with deadlines. He or she must learn to work quickly without compromising the quality of the job.
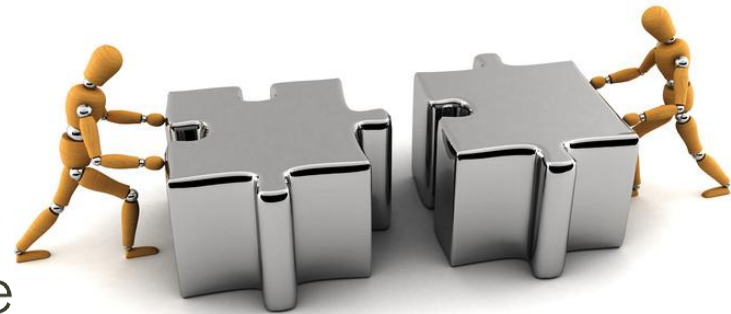
A good technical writer or communicator:

- **Is Able to Multitask:** Often, technical writers need to manage more than one project at a time. It's important to maintain consistency and progress when it comes to working simultaneously (or concurrently) on more than one document.

A good technical writer or communicator:

o **Is Able to Anticipate Problems Before they Arise and Be Proactive in Solving Them When They Do:** This means knowing the work culture, the people in it, the specifications, the hardware, the software, all the variables that go into making a system smooth.

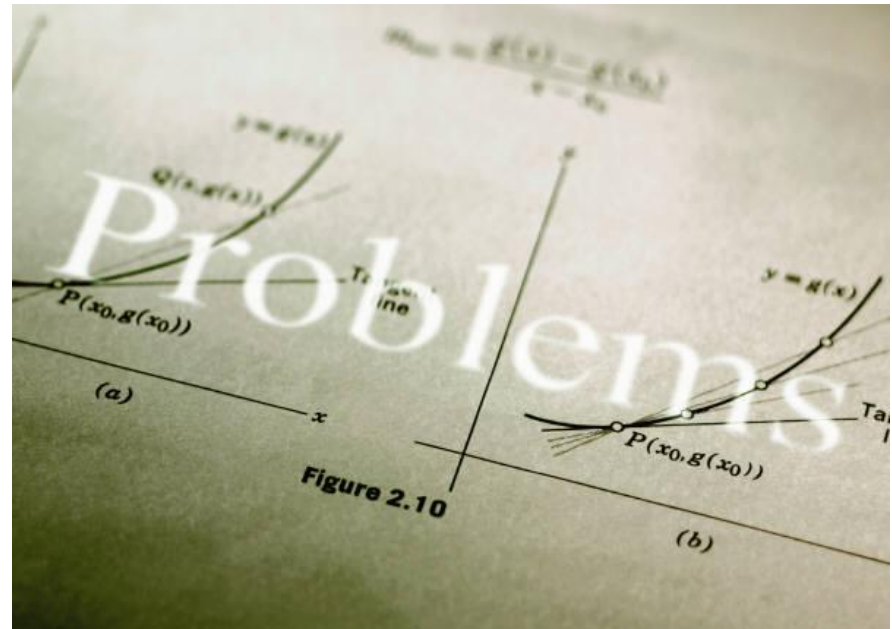# A good technical writer or communicator:

- **Is Able to Quickly Interpret and Fully Comprehend Complicated and Nuanced Processes, Materials, Methods, and Specifications:** "Know your stuff." One of the beauties of the job is that one can always strive to become a subject-matter-expert. You, more than anyone else, need to know how to think like other members of the collaborative team.

A good technical writer or communicator:

- **Is Able to Solve Problems:** Sometimes this means using reality-directed imagination to sort through, reduce, and deduce solutions to problems.

"It is better to know some of the questions than all of the answers."
—James Thurber

A good technical writer or communicator:

- **Uses Inductive Thinking, Contemplates, Daydreams, Doodles:** It's a "fact" that daydreaming serves a constructive purpose and adds to emotional and psychological health and stability. It also clears the mind and allows new solutions to surface.

A good technical writer or communicator:

- **Understands How to Move the Process Forward:** An ability to move the process forward and stay focused is a valuable attribute in a workplace that pushes time-sensitive projects and has deadlines to meet.
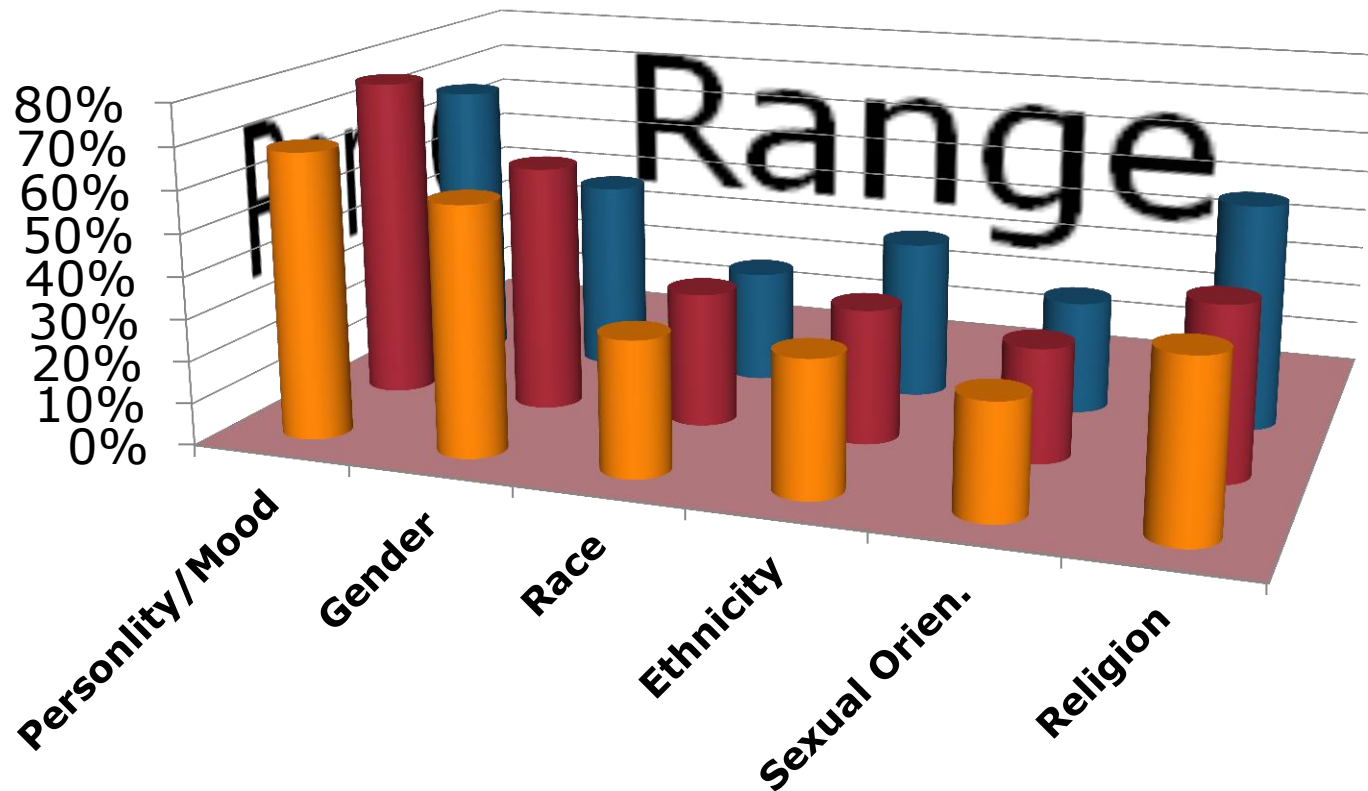
A good technical writer or communicator:

Knows How to Ask the Right Questions: Asking the right question at the right time in the right manner is a highly-skilled art. "Know thyself," the ancient Greeks said. Also, know others.

???

A good technical writer or communicator:

Understands Graphic Design and Structured Authoring Software/Environments: This is visual rhetoric. Take classes or teach yourself how to use graphics and structured authoring software.
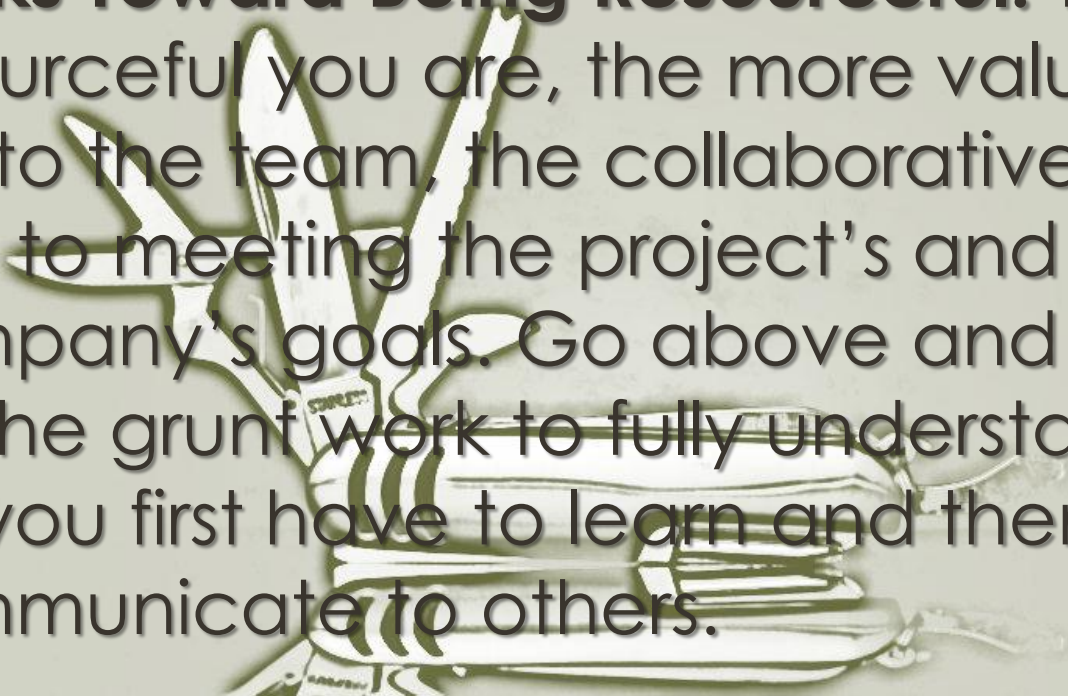
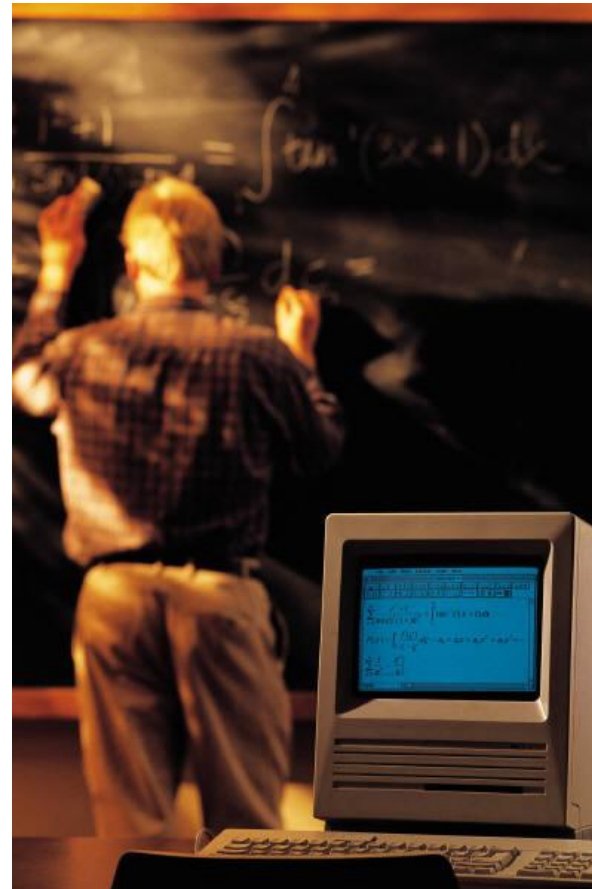From PowerPoint and Excel

A good technical writer or communicator:

Works Toward Being Resourceful: The more resourceful you are, the more valuable you are to the team, the collaborative process, and to meeting the project's and company's goals. Go above and beyond, do the grunt work to fully understand what it is you first have to learn and then communicate to others.

A good technical writer or communicator:

- **Feels Comfortable Giving Presentations:** This is part of the job, become good at PowerPoint and other software.

A good technical writer or communicator:

"Excellence can be obtained if you:
...care more than others think is wise;
...risk more than others think is safe;
...dream more than others think is practical;
...expect more than others think is possible."

Is Always Thinking About How to Make Improvements: In one sense the job you will do is never complete. Manuals, proposals, grants, whatever it is you write, can always be improved. In another sense, you have to "cut the umbilical" with a sense of conviction that your work not only meets, but exceeds objectives.

A good technical writer or communicator:

Maintains a Sense of Humor: Not only toward others, but also can laugh at one's self. Has good rapport with team members.

A good technical writer or communicator:

If everyone is thinking alike, then somebody isn't thinking.
George S. Patton

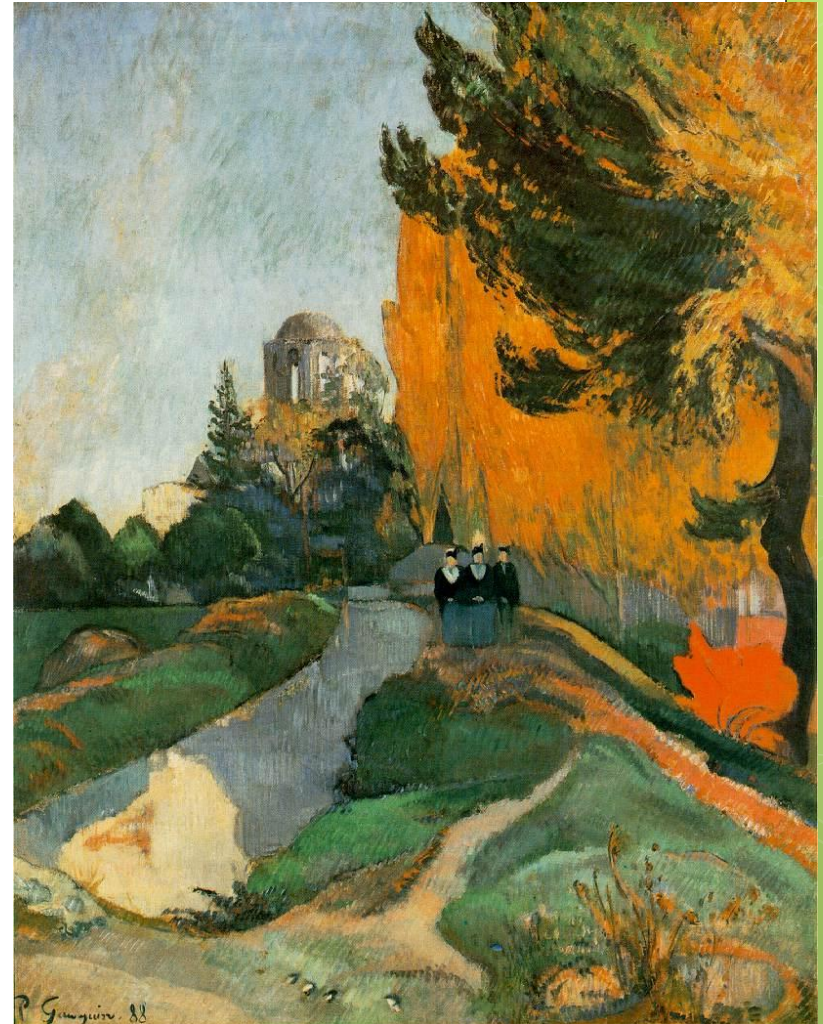*Imagination will often carry us to worlds that never were. But without it we go nowhere.*
Carl Sagan

A good technical writer or communicator:

It is the eye of ignorance that assigns a fixed and unchangeable color to every object; beware of this stumbling block.
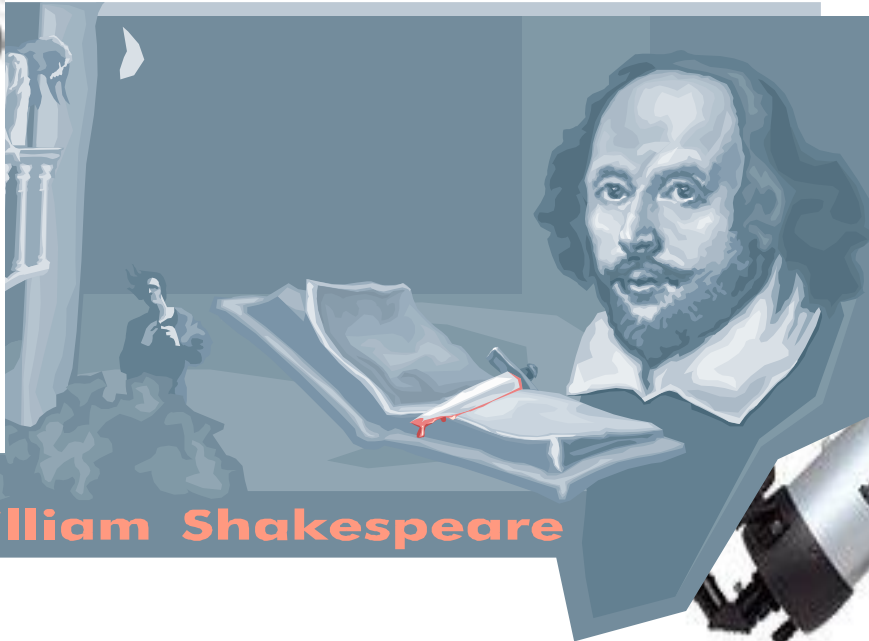**Paul Gauguin**

It's not what you look at that matters, it's what you see.
Henry David Thoreau

Remember, Good Writers Make Most Professions and Accomplishments Possible

William Shakespeare