

Relevance of Technical Communication in Modern Scenario.

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Abstract

Technical communication is a specialized form of communication that involves conveying complex information to specific audiences, usually in a professional context. This form of communication is designed to inform or instruct people about technical or specialized topics, often scientific, engineering, or technological subjects. Technical communication is a central factor in the emerging technical society and business organization. It is designed to inform and instruct the audience with a specific purpose. The success of any business organization largely depends on the technical communication. The functional purpose of technical communication cannot be over emphasized, the purpose is not to entertain but to inform. It facilitates the growth and development of technology and makes consumer goods more convenient. It is an extension of interpersonal skills. Technocrats need to have a sound technical communication skill in today's scenario. Research studies have concluded that excellent communication skills is extremely important for engineers and technocrats.

KEY WORDS: *Technical society, functional purpose, corporate organization, buyer goods, machinery, technical communication skills, interactive skills, technocrats, communication skills.*

Introduction

“It is rightly said that, your knowledge is only as good and valuable as your ability to communicate it to someone else”. This is so because the best ideas in the world are useless, unless they can be communicated to others. Communication does not only mean ‘reception’ but also understanding of the information conveyed.

Here it is relevant to quote, IAN M. Ross, President, AT & T Bell laboratories, Holmdel, New Jersey, who states that “The ability to speak and write clearly is not only important to the communication of technical concepts, it is an essential part of the innovation process itself. Translating an idea into the written word is one of the better ways of validating the soundness of one’s thinking.” Technical communication is a wide-ranging discipline and refers to any form of communication (i) about technical or specialised topics, (ii) that provides instructions on how to do something and/or (iii) is communication through technology e.g. websites or social media. Technical communication is the process of conveying information about technical or complex subjects to an audience in a clear, concise and understandable manner. Examples of technical communication include user manuals, technical reports, scientific papers, engineering specifications, software documentation and business proposals.

Technical Communication & its sole:

Technical communication is a broad expansive field and technical writing is diverse, it includes many different types of correspondence made by different people for different reasons. Technical communication is a part of almost every job. Technical communication uses a number of platforms to transmit information to an audience.

It may be defined as ‘Technical communication is the process of transmitting facts and information to a defined audience for a specific purpose’. One more way of defining technical communication is by differentiating it

with other forms of writing.

If we compare Technical Writing with other forms of writing like the expressive writing, journalistic writing or creative literature, we observe that in all these types of writing, the audience is expected to read these kinds of writing however the writer and readers are often detached and disconnected either by time or location. They are not involved in a dialogue. However technical writing is different. Its purpose is not to entertain. It is designed to instruct or inform an audience with a specific goal in mind. It requires a follow-up action.

For instance if you write a memo, you expect a response, you write a letter, you expect an answer to your enquiry or so to say that you write a user manual, you know that someone will follow the instructions. In Technical communication the detachment between the writer and reader does not exist, on the contrary the purpose is to link you and your boss, your clients, your co-workers, your vendors etc.

History of Technical Communication:

Technical communication is not a recent activity, it dates back to the earliest recorded language. We know that our ancient civilization used to draw pictures and carvings on the walls of the caves to depict their ways of hunting and other activities. Through them we came to learn about their civilization and history to an extent. This may be taken as the earliest form of technical communication.

Purpose of Technical Communication:

Today, we are surrounded by technical information. Right from two lines instruction on the frozen-food carton, instructions on a soft drink can to the lengthy user and instruction manuals, reports, proposals, all are a part of technical communication.

The basic purpose of Technical Communication is to make information clearer and more understandable so as to make the business more productive and consumer goods more convenient. The purpose also is to help to enhance the economy by facilitating research and development by safe guarding designs and manufacturing, protecting consumers through accurate and informative documents etc.

The purpose of Technical Communication may be to describe, persuade, explain, inform or record the action or information. At times it may have multiple purpose. The purpose of Technical Writing is often determined by the audience which in turn effects the tone of the technical communication. In fact, understanding the inter relationship among purpose, audience and tone is essential to effective technical writing. The audience in any type of technical correspondence is the intended or the potential reader or readers. In effective technical communication, audience recognition is one of the most important concerns of the writer to plan, write and review a document. Technical writers mould their writings to meet the needs, background and interest of their prospective readers. The audience in technical communication comprises of managers, bosses, colleagues, coworkers, customers and clients
i.e. the general public who are the end user of the products.

Let us assume that you are an employee, and you must write a monthly sales report to your immediate boss. You do this every month, and your report goes to the same person every time, who reads it and puts the record in file for future reference. With this ongoing activity, you know that the purpose of your report is to document, and your goal is to provide data and nothing else. You also know that your audience, that is your boss, is technically fluent. With the purpose and the audience, you write an objective report which is dry and impersonal in tone. Thus, the knowledge of your purpose and audience decides the tone of your communications.

Relevance of Technical Communication.

The importance of technical communication in the current global scenario cannot be over emphasized. It has

become integral to the development and enhancement of business and technology. A technical communicator, also known as a technical writer, is a professional who specialises in creating and delivering technical information in a clear and coherent manner. They have an end user focus as they aim to bridge the gap between technical experts and the end user, taking into account that end users may vary between having very little (or no) technical knowledge to those who may be regarded as 'experts' in the field.

The Society for Technical Communication (STC) is a professional association dedicated to the advancement of the field of technical communication. Established 70 years ago, they state 'Technical communicators research and create information about technical processes or products directed to a targeted audience through various forms of media. What all technical communicators have in common is a user-centered approach to providing the right information, in the right way, at the right time to make someone's life easier and more productive.' A technical communicator's work contributes to the success of products, services, and processes by ensuring that users can access accurate and user-friendly information. For example, well-written and designed software instructions can help the end user be more successful on their own. This in turn increases the likelihood of the product being accepted in the marketplace and reduces support costs for the manufacturing organisation.

Technical Communication & Business:

Technical communication is a major work component in today's environment. The survival of organizations to a large extent depends on the formal and technical correspondence done on a routine basis with the customers, suppliers, bankers, lawyers, vendors and government agencies. This correspondence also facilitates creating the image and brand of the company or the organizations. The success or failure of an organization depends on its formal correspondence and technical writing as well. The technical communication helps the organization to plan, manage and organize business activities. It helps to promote sales and enhance the business. Through effective technical communication, you maintain good customer client relationship, directive memos, letters, ensure that a work is completed on time. Reports provide documentation that work has been done. Sales letters generate income.

Technical writing also keeps machinery working (maintenance, instructions, it ensures that correct equipment is purchased (technical descriptions), it gets you jobs (resumes, it informs the world about your company's product through websites etc.) The demand for technical communicators is driven by the need for effective communication where technology, processes, and procedures are complex and require clear documentation for users and stakeholders.

Whether or not you need to hire a dedicated technical communicator depends on various factors, including the complexity of your products or services, the target audience, and the importance of effective communication in your industry. If your organisation regularly produces complex technical documentation, values clear communication, and operates in an industry where accuracy and clarity are critical, hiring a dedicated technical communicator could be a strategic investment. However, for smaller organisations or projects with less complex communication needs, it might be more practical to leverage existing resources or hire freelance technical writers on a project basis. The benefit of employing a technical communicator is that by making information more useable and accessible, they are advancing the goals of the organisation.

Technical Communication Consumes Time & Cost Money:

Recent research has proved that on an average and average employee spends approximately 20% of his work time on technical communication. As you move higher the order, employees spend more time on technical communication which may range from 50% to 90%. Twenty percent is just the base figure. Corporate bosses and supervisors spend more time not only on technical writing but also spend additional time reviewing and revising the writings composed by subordinates. However, even if we consider only 20% of the time spent on

technical communication, that comes to an average of one complete working day in a working week. Time is money that means you are being paid 20% of your salary for your technical communication skills. If an employee fails at effective technical communication skills, the company suffers financially, and the employee will soon have to look for a new job because he would be found incompetent to work. If an employee does not write clearly and effectively the readers are confused, and they will again seek further explanation. This results in the wastage of time and you are being paid for the time you give at your work place. The wasted time cost the company. Good communication has additional monetary value other than the salary and the cost of correspondence. If you write clearly, the readers get right on the job and the job is done effectively.

Technical Communication is an Extension of your Interpersonal Skills:

“I will pay more for the ability to deal with people than for any other ability under the sun”

(JOHN D. ROCKEFELLER)

This is a very relevant remark about interpersonal skills. In business most problems are people's problems. When we solve the people's problems our business problems are substantially resolved. Technical communication is the extension of such interpersonal skills which are required and very integral in today's working scenario. When you write a memo or a letter or a report you are not just communicating information you are also revealing something about your interpersonal skills. If you communicate properly, you tell your audience that you are capable of thinking logically and effectively.

Through your technical communication your competence is also judged. Through good technical communication you also reveal to your audience that you can tell people what to do and how to do besides motivating them to do it.

Importance of Technical communication:

Engineers need to have a very sound Technical Communications Skills. They should be able express their ideas in a clear, succinct and lucid manner. Sound technical skills is very important for technocrats. One of the main objectives of technical communication is to provide organized information which in turn facilitates quick decision making. Research studies have concluded that excellent communication skills is extremely important for engineers and technocrats. Studies have also concluded that problem solving is considered to be the most important skills, but secondary to them are teamwork, communication and management skills. Effective technical communication skills assist for technocrats in utilizing various visual aids like graphics, drawings, charts, diagrams, images etc.

Let's explore the reasons behind the growing importance of effective communication in engineering and highlight why engineers must develop strong communication skills to thrive in today's industry.

- **Collaboration and Interdisciplinary Projects** - Projects today are more complex and require collaboration among diverse teams. Modern engineering challenges often involve multiple disciplines, such as mechanical, electrical, and software engineering. Effective communication is essential to bridge the gap between these disciplines, ensuring that all team members understand each other's perspectives, requirements, and constraints. Engineers with strong communication skills can facilitate collaboration, streamline decision-making processes, and foster a harmonious work environment.
- **Client Engagement and Stakeholder Management** - The engineering industry now places greater emphasis on client engagement and stakeholder management. Engineers must communicate effectively with clients, understand their needs and expectations, and translate technical concepts into understandable language. Clear and concise communication fosters trust, enhances client satisfaction, and leads to successful project outcomes. Moreover, engineers are often required to interact with government agencies, regulatory bodies, and other

stakeholders. Effective communication helps manage expectations, address concerns, and ensure compliance with regulations, enabling smoother project execution.

- **Communication in the Design Process** - Communication plays a crucial role in the design process. Engineers must convey their ideas, designs, and technical concepts to clients, colleagues, and stakeholders. Strong communication skills facilitate effective presentations, enabling engineers to articulate their vision and rationale behind design choices. Clear communication also helps gather feedback, ensuring that designs meet the desired specifications. Additionally, engineers need to communicate with manufacturing teams, contractors, and suppliers to ensure designs are implemented accurately and efficiently.
- **Project Management and Leadership** - Engineers are increasingly taking on project management and leadership roles. Effective communication is vital for project managers to articulate project goals, allocate resources, and coordinate team activities. Through clear communication, project managers can set expectations, delegate tasks, and provide timely updates, ensuring that projects stay on track. Leadership requires motivating and inspiring teams, and effective communication is fundamental to achieving these goals.
- **Impact on Safety and Risk Management** - Safety is a critical concern in the engineering industry. Engineers must communicate safety protocols, hazard information, and risk management strategies effectively to minimize accidents and ensure the well-being of both workers and end-users. Clear communication about potential risks, safety guidelines, and emergency procedures is paramount to maintaining a safe working environment. Strong communication skills enable engineers to convey complex safety information comprehensively, ensuring that everyone involved understands and adheres to the necessary precautions.

Some Effective Communication Tips for Engineers to Remember

Regardless of industry, all professionals should work to hone their communication skills. Next are some tips about how to improve your listening, speaking, and presentation skills.

Listening - Improve Your Listening Skills

Listening is not an easy activity when done correctly. Also, listening is just as important as speaking. Bovee and Thill (2023, p. 96) note that effective listeners:

- Put themselves in an open and positive state of mind
- Keep themselves engaged in the conversation by using active listening techniques
- Respect silence
- Do not interrupt the speaker or be ready with an answer before someone finishes their thoughts
- Pay attention to nonverbal signals
- Take thoughtful notes
- Do not jump to conclusions
- Do not focus on the personal delivery and appearance of the speaker
- Resist distractions
- Paraphrase (repeat what they understood back to the speaker to mitigate miscommunication and misunderstanding)

Verbal Communication – Speak Clearly

When you speak clearly, slowly, and vividly, the chances of being understood by your listeners skyrocket! Keep these tips from Verderber and Verderber (2017) in mind:

- Use specific and concrete language.
- Consider your pace and pitch.
- Consider your volume.
- Understand that how you say something is just as important as what you say.
- Provide the right amount of information for the conversation you are having.
- Use descriptive details and examples.
- Use inclusive language - meaning do not use language that applies to only one sex, race, or another group as though they represent everyone.
- Avoid using slang and jargon.
- Be concise.
- Be mindful of your body language – eliminate distracting mannerisms.

Public Speaking - Presentations

Whether you are presenting to a few people or a few hundred, rely on these best practices from Stephen Lucas' book, *The Art of Public Speaking* (2023):

- Consider how you will manage your anxiety. Many people use breathing exercises or visualization.
- Tailor your presentation to the audience.
- Be ethical in your content and presentation.
- Prepare, prepare, prepare and rehearse the presentation.
- Be clear on your central idea.
- Remember to have an introduction and a conclusion.
- Use evidence to support your arguments in the body of your speech.
- Work on eliminating distracting mannerisms.
- Be mindful of your volume, pace, pitch, and tone.
- Avoid verbal pauses such as “umm” or “uhh.”

Conclusion

The fast developing and growing technical know-how complemented with the development of sophisticated information technology has changed the way we communicate in professional situations. There is literally an explosion of knowledge and technology in the current scenario, where in, technical communication has become a central factor, and technocrats need to have sound communication skills in order to be effective. Whether you are an executive working in a multinational company or an engineer, a scientist or an engineering student you need to have effective technical communication skills. Technical communication is integral to effective management. The whole world has become a global market and the communication of technology, and its implementation is playing a major role in the economic growth and development. The success of technology also depend majorly on the ability to analyses, organize and present the information.

Technical communication is highly relevant in the context of globalization. It plays a crucial role in preparing writers for global dialog situations and contributing to the international discourse of daily communication.

With the growth of international business and the need for competent intercultural technical writers, there is a demand for technical writing curriculum that addresses the cultural and linguistic complexity of global technical communication. Internationalizing the business and technical writing curriculum is necessary to meet the demands of an increasingly globalized world, where businesses operate on a global scale and diverse populations interact. Additionally, technical writers need to be trained in global writing to effectively communicate on a global scale, save costs in translation, and cater to international audiences. By incorporating global perspectives, multiculturalism, and multilingualism into technical writing instruction, writers can be better prepared to navigate the challenges of globalization and contribute to effective risk communication and social justice.

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