

# **Lecture 5: Technical Writing Applications**



## Application 1: *How To Write Memorandums (Memos)*

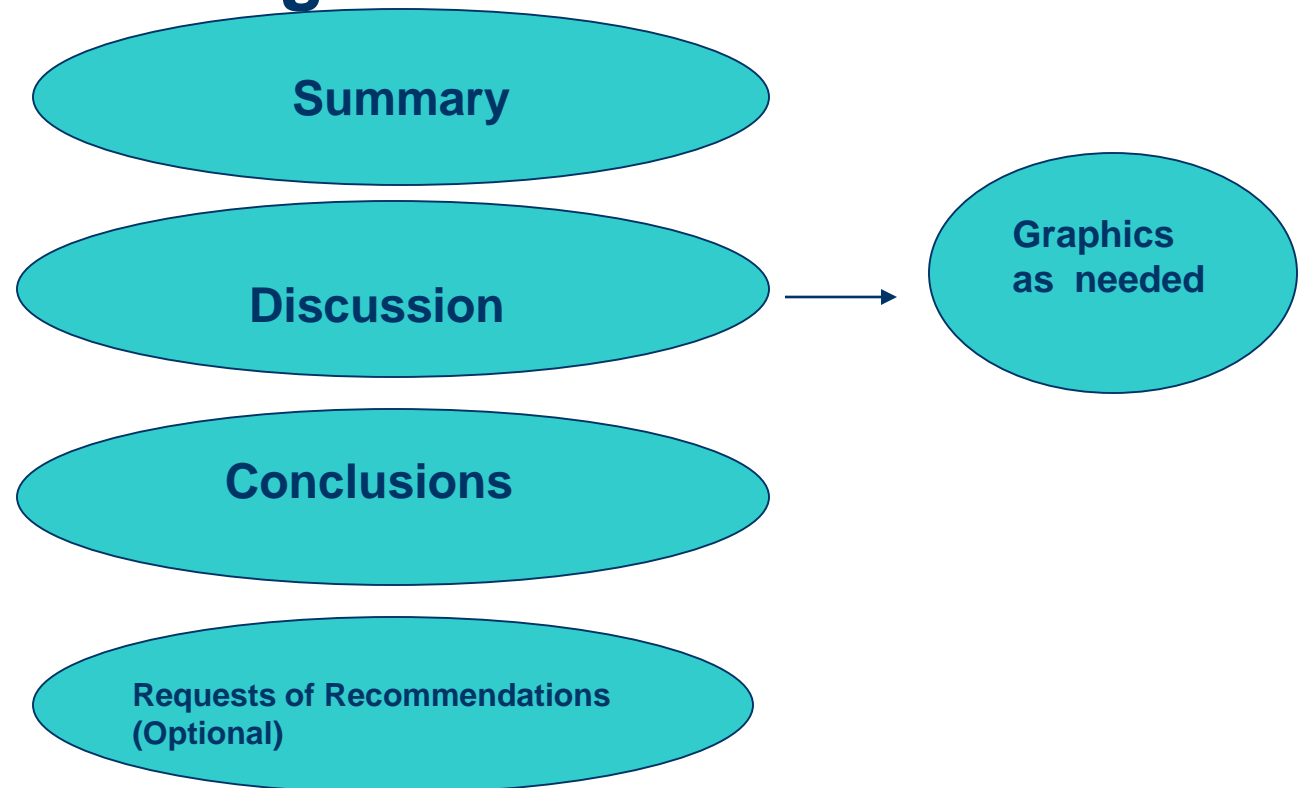
- Memos are the everyday “workhorses” for transferring information from one person to another.
- In terms of how frequently memos are used in the computer industry, they are the most important type of documentation you are likely to write.

# Memos

- Memos may vary from extremely informal handwritten notes to formal, typed interoffice memorandums (IOMs), they may include electronic mail and on-screen messages.
- Memos should be as concise and direct as possible. That does not, however, stipulate (require) optimum (best) length for memos. Some formal IOMs can run as long as (10-20) pages, including attachments.

# Memos

**Memos can be organized as follows:**



# Memos

**Types of Memo According to their purpose**

**1- Recommendation Memos**

**(either requested or self initiated)**

**2- Informative Memos**

**3- Information Requested Memos**

## Types of Memo :

### 1. *Recommendation Memos*

**If the reader requested an investigation that will lead to conclusions and recommendations. The memo generally adheres to the following design:**

# Types of Memo :

## 1. *Recommendation Memos*

### Reader requested Memo

#### Introduction

Problem summarization as the writer understands it.

#### Discussion

Presents an evaluation of all alternatives the writer considered. (including the Pros and Cons of each)

#### Conclusion and Recommendation

- recommends a solution.
- Analyzes it.
- Discuss important element of implementing it.

# Types of Memo :

## 1. *Recommendation Memos*

### *Writer initiated Memo*

(Feeling that the intended reader has a need for the information presented)

#### Introduction

- Supplies background orientation to the issue being reported on.
- Definition of the specific problem at hand.
- A brief statement of the recommended solution.

#### Discussion

**Presents an evaluation of all alternatives the writer considered.  
(including the Pros and Cons of each)**

#### *Conclusion and Recommendation*

- recommends a solution.
- A full analysis of it.
- The presentation of important aspects of implementing it.



# Types of Memo :

## 2. Informative Memos

- These memos are issued at the discretion (good judgment) of the writer to provide readers with information they “need to know”.
- Informative memos are usually short, to the point, and often informal.
- Even so, for them to work, they should be well organized.

# Types of Memo :

## 2. Informative Memos

### *Informative Memo Organization*



#### Introduction

- Orients the reader to the subject of the memo.
- Brief description of the contents of the memo.
- Suggests the action the reader should take with regard to the information presented in the memo.

#### Discussion

The  
presentation  
of the  
information

#### *Request*

An optional section  
used when the writer  
wishes information from  
the reader pertaining to  
the contents of the memo

# Types of Memo :

## 3. *Information-Requesting Memos*

- These memos are issued when the reader has identified a “need” for specific information. Usually, they are too short.
- The following design makes it likely that the reader will notice the request easily:

# Types of Memo :

## 3. *Information-Requesting Memos*

### *Information requesting Organization*



#### Introduction

- An orientation to the reader's needs.
- Reasons why the memo was written.
- Why it was sent to the reader.

#### Discussion

A direct request for the information needed.

# Memo Format:

## Memorandum

**Date:**

**To:**

**From:**

**Subject:**

**Text of the memo**

- The text in this area should be concise, clear, and well-written. Organization is very important. If you have more than one topic or subject (or you have subtopics), you can use headings to make your message more readable and understandable. If you have a list of items within your memo, use bullets. Bullets, like headings, are frequently used in memos to make them easier to read. Avoid unnecessary topics or information--and don't repeat yourself.

- Some memos contain conclusions; some omit them. Conclusions are good to use if you have several points to make and wish to summarize them or make a recommendation. Conclusions are also useful if you wish to make a request.
- Notification of attachments is included at the very end of the memo, right above the bottom margin and against the left margin.
- Always identify your attachment in the following way--Attachment: Exhibit I.

## Some points to remember about good memo writing are as follows:

- Be kind to your reader--use headings and bullets as necessary to make the memo easy to read and key points stand out.
- Be concise--long sentences with complex construction do not belong in memos.  
Keep memos short and to-the-point.
- Remember memo format



- Identify your attachments--if your attachments become separated from the memo, your reader will know that they were supposed to be there and can ask for them.
- Be coherent (logical)--limit each paragraph to only one idea. Keep your sentences flowing smoothly, and keep them short.
- Use the first person (I or we); use short, simple words; be as informal as the situation allows; use concrete, specific words.

- Proofread your work--always read your work (or have someone else read it) before you sent it out.
- Identify your audience--identify the person or persons to whom you are writing. Think about what they know, who they are, what they want to see or hear, how they are situated. Clarify your audience's background, context, and environment. **Never, never , never write without identifying your audience first.**

## Application 2: Feasibility Reports

- A feasibility study analyzes the problem and its implications, evaluates alternative solutions, and (usually) recommends a particular course of action. The results of such a study are written up in a *feasibility* report.

## Application 2: Feasibility Reports

- *Feasibility has two somewhat different meanings:*

1- Technical Feasibility

2- Suitability or reasonability

# 1. Technical Feasibility

- *It means technically capable of being done, Executed, or effected.*

## 2. Suitability or reasonability

- *In this larger sense, the notion of feasibility covers **five general criteria** that are used to evaluate any proposed solution to a problem:*
  1. *Effectiveness: Is the solution effective? Will it solve the problem posed?*
  2. *Technical Feasibility: Can the solution be implemented? Does it require technology or resources that are unavailable?*
  3. *Desirability: Would we want to implement the proposed solution? Does it have any undesirable effects? Does it have desirable effects?*
  4. *Affordability: What will the solution cost to implement? To maintain? Is this cost reasonable?*
  5. *Preferability: Is the solution better than or preferred over any other possible solution? Why?*

## Application 2: Feasibility Reports

- This larger notion of feasibility also covers any **special criteria** necessary or appropriate to the given situation, for instance, important issues of safety, environmental pollution, conformity to particular laws or traditions, precedent (standard) setting, or justice. As technical (expert) writer, you must be able to deal with all the relevant issues and criteria in a feasibility study.
- When all these criteria enter into the notion of feasibility, they provide the basis for a (complete)full-fledged argument of **fact** or **policy**.

## Application 2: Feasibility Reports

- For instance, when you judge an alternative (Software) as being effective, technically feasible, desirable (including safety), affordable, and preferable, and then argue on the basis of these judgments that the alternative is **feasible**, you have constructed an **argument of fact** supported by several sub arguments of fact as discussed above. If you go one step further and argue that the alternative (Software) should be **developed**, you have constructed an **argument of policy** supported by several sub arguments of fact, one of which is the argument of feasibility.



## Application 2: Feasibility Reports

- The feasibility report is much like other kinds of technical reports: it is based on a problem; it presents an analysis of one or more possible solutions; and, if possible, it recommends the best solution given the circumstances involved. Feasibility report structure can be outlined as follows: -

# Application 2:

## Feasibility Reports

- 1.Foreword
- *This section describes the general situation related to a particular problem, and should be written for all readers, especially managerial and no specialist readers.*
- 2.Summary
- *This section summarizes the evaluation of each alternative according to effectiveness, technical feasibility, desirability, affordability, and preferability. As a result of this study, one alternative should be recommended. Once again, this section should be written for all readers, especially managerial and nontechnical readers.*

# Application 2:

## Feasibility Reports

- ***3.Details:*** *This section presents the essential supporting details and arguments for technical or specialist readers, and covers the following subsections: -*
  - 3.1 The problem and its background*
  - 3.2 Argument for the recommended alternative*
    - 3.2.1Criteria for judgment*
    - 3.2.2The selected alternative as the recommended solution.*
    - 3.2.3Rejection of alternatives*
  - 3.3 Development and Implementation of the selected alternative.*
    - 3.3.1 Brief explanation of the technique.*
    - 3.3.2 Cost and time required.*
  - 3.4 Conclusions and recommendations*
  - 3.5 References*
  - 3.6 Appendixes: This section can be used to include nonessential but supporting information or disruptively long information.*

# Application 3: Proposals

## *How to Write Proposals*

Strictly speaking, a proposal is a: -

- Sales piece of writing,
- Communication designed to obtain work,
- Go-ahead on a project, and so on.

# Proposals

- Proposal ultimate goal is to identify a need on the part of the audience and outline ways that the writer, or the group of people the writer represents, can satisfy that need.

Writer(s) → Identify → Need(s) →  
Outline ways → Solution

# Proposals

- For proposals **to be successful**:  
writers must convince the audience that they can do something for the audience, that it needs to be done, and that the writers or proposing group can expect some sort of recompense (reward) for having done it.

# Proposals

As it appears, this is not an easy task. Accordingly, you should try to do some, if not all, of the following: -

- 1- Consider the needs and level of understanding of the audience (i.e., analyze your audience).
- 2- Use a simple format.

# Proposals

- 3- Make sure that the final draft is clear and legible/readable (good letter quality print, attractive layout).**
- 4- Keep paragraphs and sentences reasonably short (shorter in proposals than in analysis reports, for example).**



# Proposals

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**5- Use headings.**

**6- Use the active voice style whenever possible.**

# Proposals

Finally, writers should realize that:

**“Readers read proposals in order to reject them”.**

You will want to provide: -

**“Skimming (read quickly) cues for intuitive readers, as well as sufficient details about the project for sensing readers”.**

# Proposals

- Make it easy for people to judge your proposal by supporting it with:  
“Logical reasons (for **thinking** evaluators) and with how it fits into their value systems (corporate, national, etc,) for **feeling** readers”.

## Application 4 : Progress Report

- Progress reports are issued at predetermined intervals during an ongoing project.
- Progress reports are used for one **purpose**: to report the progress made on a project during the interval covered by the report. They can do this most **concisely** when they adhere to the following:

# Progress Report

## *Progress report Structure*



### Introduction

-An orientation to the status of the project by describing:

- 1- background
- 2- What has been Accomplished prior to the present.

### Discussion

An analysis of the accomplishment and problems during the interval being reported on.

### *Future Work*

A statement of the work planned for the next interval.

## Case Study (Progress Report):

- The following table shows the estimated costs associated with the required tasks to accomplish a project:

Tasks	Estimated Costs	Expected Time
A (1-2)	10000	2
B (1-3)	30000	3
C (2-4)	3000	1
D (3-4)	6000	3
E (3-5)	20000	2
F (4-6)	10000	2
G (5-6)	8000	1
	<b>87000</b> <b>Total Cost</b>	

## Case Study (Progress Report):

At the end of month four you got the following information about the actual implementation of the project:

The Progress Report will be:

Tasks	Actual Costs	Percentage of Execution
A	12000	100%
B	30000	100%
C	1000	50%
D	2000	33%
E	10000	25%
F	0	0
G	0	0
	55000 Actual Cost	

## Case Study (Progress Report):

Tasks	Actual Costs	Estimated Cost = (percentage of execution x Total Estimated Cost)	Deviation = (Actual Cost – Estimated Cost)
A	12000	10000	2000
B	30000	30000	0
C	1000	1500	-500
D	2000	1980	20
E	10000	5000	5000
F	0	0	0
G	0	0	0
	55000	48480	6520 ?



# Application 5 : User Manuals

- A User Manual is a technical document intended to give assistance to people using a particular system.
- It is usually written by a technical writer, but can also be written by programmers, product or project managers, or other technical staff.

# User Manuals

- User manuals are written for electronic goods: computer hardware and software
- Most user manuals contain both a written guide and the associated images.
  - In the case of software manuals, it is usual to include screenshots of how the program should look
  - In the case of hardware manuals often include clear, simplified drawings.

# User Manuals: Sections

- The sections of a user manual often include:
  - A cover page
  - A title page and copyright page
  - A preface, containing details of related documents and information on how to navigate the user guide
  - A contents page
  - A guide on how to use at least the main functions of the system
  - A troubleshooting section detailing possible errors or problems that may occur, along with how to fix them
  - A FAQ (Frequently Asked Questions)
  - Where to find further help, and contact details
  - A glossary and, for larger documents, an index

# User Manuals for Software

- The user manual for software is almost as important as the software itself.
- Manuals are typically short, but if more detail is needed, they can be much longer.
- The length of a manual will depend solely on the type of software and how much detail it must include.
- Users will appreciate manuals with easy to find, concise information, with enough detail to prevent confusion.

# Instruction to write a user manual for a software

## 1. **Write an outline for the manual .**

- This will give you a plan to follow.
- Things to include in the outline are the installation procedure, software purpose, menu descriptions, common tasks, advanced functions, and a troubleshooting section.
- Also include sub-sections in your outline for specific tasks, such as creating a new file, saving files, and printing files.

# Instruction to write a user manual for a software

2. **Detail the installation process, including computer requirements.**
  - Provide requirements before the main installation procedure so users can prepare their computer.
  - Include even the most basic steps for computer beginners. These steps may include "double-clicking the installation file" or "insert the CD into the CD-ROM drive".

# Instruction to write a user manual for a software

## 3. **Provide a detailed description of the software's purpose.**

- Include what a user needs the software for and how they can benefit. For instance, if the software deals with accounting, explain common accounting tasks that the software makes easier.
- Include a brief description of advanced features that makes this software different from others on the market. For instance, your software may be able to generate more reports or supports more file types than any other program currently available.

# Instruction to write a user manual for a software

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# Instruction to write a user manual for a software

4. **Explain how to navigate menus.**
  - Explain each item in the menus provided.
5. **Write a separate section for advanced functions and extra features .**
  - This is the place to go into detail. For instance, a user manual for Microsoft Excel might include information on creating reports, links, and macros.
6. **Provide troubleshooting tips.**
  - Explain the meanings of any errors the user might encounter, how to solve the issue, and how to prevent it in the future.
  - This is also the place to include contact and help desk information.

# User Manuals

- Writing a good user manual is not an easy job. This requires you to have **good experience** in technical writing, and be **knowledgeable** in the subject about which you are going to write the manual.

# User Manuals

- To make it easy, follow the five steps in your writing:

## 1- Supply a (real) manual.

- An amazing number of companies rationalize (reduce) their way out of supplying a manual at all, and then complain as loudly as anyone else about the stupid users calling customer support.

# User Manuals

## *2 Explain the problem being solved*

- A lot of bad manuals are actually good feature specs that companies have just translated from engineering into a human language, and then shipped.
- The problem with this approach is that you end up with a manual that explains every feature in depth, while keeping secret why anyone would ever want to use them.

# User Manuals

- Programming language manuals are almost universal in this failing. They present 100 or 200 different commands without once mentioning what they are useful for.
- Explain a problem and offer a solution and people will remember it forever.
- Jump right to the solution, without ever presenting the problem, and it just won't penetrate

# User Manuals

- *3 Present the concepts, not just the features.*  
Well-designed software should be centered on a few, large **concepts**.
- Any time you learn a new piece of software, you go through the process of constructing a mental model of the software, called the "User Model."  
Building a model requires a framework, and the framework consists of these large, key concepts.  
Without a framework, it is extremely difficult to learn.

# User Manuals

- That's why manuals written from specs are usually impossible to learn from. The key concepts are entirely absent, so the user has nothing upon which to hang the bits and pieces of knowledge offered. Instead, they kind of float around in a cloud until the poor reader finally sees the pattern.

# User Manuals

- When a user does finally "get it," the bits and pieces do not then suddenly come together; Most of the bits and pieces, with nothing to hang them on, will have drifted off forever. The user must now re-read the entire manual, finally tying the bits and pieces in place on their newfound framework.
- Manual writers will not themselves "get it" either through **lack of trying, lack of interest**, or serious **lack of ability**. These manuals are useless.



# User Manuals

- Manual writers must be **introspective**. They must write the concept down and present it early enough to their readers.

# User Manuals

## 4. *Give more than they deserve*

- Manuals need to cover the task domain. The depth and extent of the task domain that must be presented will **depend** on a number of factors, including the **expected domain knowledge of the users** and the **amount of knowledge** necessary for people to be able to use the application.

# User Manuals

## **5 Make it enjoyable to read**

- To make it enjoyable to read, your writing should achieve the following:
- Continuity between sentences, paragraphs, and sections of your manual on one hand, and between figures and tables and the written text of the manual on the other.
- Use transitional words to guide the readers through the manual, but be careful do not overusing them.
- Carefully choose the places at which you refer to figures and tables