



Report Forms

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Aims and Objectives

- Document purpose,
- Document types

Document Purpose 1

- **Explicit purposes:**

Four general categories:

1- to provide information,

Example: This document will discuss the genetic basis of muscular differentiation of the Mediterranean fruit fly.

2- to give instructions,

Example: This document outlines a procedure for isolating the mechanisms of muscular differentiation in the Mediterranean fruit fly.

3- to persuade the reader,

Example: This document proposes a study of the mechanisms for blocking muscular differentiation in the Mediterranean fruit fly.

4- to enact (or prohibit) something.

Example: NOTICE: Mediterranean fruit fly quarantine area: no fruit allowed beyond this point.

- Make the explicit purpose clear at the beginning of your document in an abstract, an executive summary, an introduction, or all of these.



Document Purpose 2

- **Implicit purposes:**

Among the most common of these goals are:

- 1- to establish a relationship,
- 2- to create trust and credibility, and
- 3- to document actions.



Document Types

- After identifying a document's purpose, determine the appropriate document type.
- Appropriate means make your document appropriate to your goals in writing it, your audience's purpose in reading it, and the specific institutional contexts in which it is written and read.
- An easily recognizable document type and format increases a document's overall coherence and the audience's ability to use it efficiently. Consequently, most technical documents conform to fairly standard document types that present information in standard formats



Document Types

- Memoranda
- Agendas
- Meeting documents
- Literature reviews
- Reports
- Letters
- Proposals
- Press releases
- Specifications
- Documentation
- Instructions and procedures
- Style guides
- Theses
- Oral Presentations
- Résumés
- Notebooks



Memoranda

- **Memoranda are brief, informal reports used to establish a record.** They generalize the communication process by transmitting the message from one or more authors to one or more recipients. E-mail messages typically take the form of memoranda.
- **The memorandum is among the most versatile of organizational documents.**
- Memo form is widely used to communicate technical and administrative information. Memoranda are written for numerous internal purposes

for example, *to request information, to make announcements, to outline policies, and to transmit meeting minutes. Thus, in most organizations, memos play a crucial role in establishing a record of decisions, requests, responsibilities, results, and concerns.*

The Memo Heading

- The most important section which is **used to frame the message in a very accessible and transparent manner.**
- sets out the context of the message and should be detailed enough to make the context very clear.

MEMORANDUM	
To	J.C. Crewe, NIH Small Instrumentation Program
From:	D. Mars Department of Mechanical Engineering Room 3-250, MIT Ext. 617-996-2828
Subject:	Request for an Image Digitizing System to Support Ongoing Research (\$10,900)
Date:	

Identify the recipient clearly. Use title, if he or she uses it. Recipients may also be addressed as a group.

Identify the author, and add title if the memo is going to another group outside the normal working locale.

Give a clear, detailed identification of the subject under discussion.



The Memo Body

- organize the topics of the memorandum in order of importance, with the key statements first and the details further on.
- The memorandum should normally begin with a brief summary statement, in one or two sentences, identifying the key topic and the scope of the memorandum.

Memo Example

MEMORANDUM

TO: J.C. Crewe, NIH Small Instrumentation Program

FROM: D. Mars
Department of Mechanical Engineering
Room 3-250, MIT
Ext. 617-996-2828

DATE: January 16, 1992

SUBJECT: Request for an Image Digitizing System to Support
Ongoing Research (\$10,900)

This request for \$10,000 is for a picture digitizing system and plug-in board for a PC clone, and for an Ethernet board and software. The systems directly serve two NIH grants and indirectly serve other users in the XYZ community through the ability to transfer these images over the campus network. Granting this request will enable their projects to achieve a solid technological base for image analysis.

Problem

Our research has become increasingly dependent upon image analysis to extract quantitative data from pictures taken through microscopes. This requirement has been the focus of a substantial effort over the past six years to develop algorithms for analyzing

pictures with a computer. Unfortunately, the software has out-paced the picture digitizing systems that are available to us. We are in dire need of reliable commercial systems that will digitize pictures in color at better than 1000 x 1000 pixels per picture.

The Participating Grants

The two active NIH grants that will immediately benefit from the requested imaging system include:

- HL570D. Mars
This grant investigates the influence of fluid shear stress on the structure and function of vascular endothelium. Imaging is used for cell shape analysis and detection of antibody stains.
- HL4500 R.F. Dodge
Research on aqueous outflow from eye and relation to glaucoma. Imaging used to extract quantitative data from electron micrographs of porous tissue.

Budget

The image system we have chosen is a Bameyscan Digitizer and plug-in board for a PC Clone (\$8700), plus a PC clone and Ethernet board and software (\$2200) to connect to the existing image analysis system on the MASSCOMP computer in the Fluid Mechanics Laboratory.



Meeting Documents

- **Agenda**, tells participants what topics will be discussed at the meeting,
- **Minutes**, which record what actually occurred.

Agenda

- An agenda is a simple list of topics to be discussed usually in a meeting.
- agenda helps focus a meeting on a core of topics and allows you to control the pace and flow of a meeting and identify important items to be acted upon.
- Meetings without published agendas generally seem unfocused and unproductive.
- Prepare and circulate an agenda of items to be discussed for each meeting.
- Circulation of an agenda before a meeting will allow your audience to consider their responses to items listed and will help stimulate discussion.

Agenda

- Agendas may be circulated by e-mail or hard copy.
- The advantage of hard-copy agendas is that they may be brought to a meeting to facilitate the taking of notes during discussion.
- Experienced meeting leaders recognize that both hard-copies and electronic copies of agenda are usually misplaced, so they bring enough copies for everyone present at the meeting.

- Example:

Development Team Agenda Date : 26/11/2014

1. Report by B. Perez on investigation of possible security software
2. Report by S. Chan and P. Stanley on development of database prototypes
3. Discussion of possible hardware platforms
4. Review of deadlines for project
5. Agenda for next meeting



Minute

Keep accurate minutes of meetings, both formal and informal.

Minutes are an essential part of organization life.

They maintain an institutional memory of all actions taken or proposed and the key points of discussion.

They also inform appropriate individuals who were not present at the meeting of the key action and discussion items.

Formal minutes are often required by federal, state, or local law, by-laws, charters, or regulations.

They are usually distributed to the members of the group before the next meeting, and then approved (sometimes after being amended).

Some minutes are legally parts of the public record and available to anyone.

Often, however, organizational minutes are private and confidential documents, which should be distributed only to appropriate individuals.

Minute

Information usually included in formal minutes:

- The name of the group that is meeting and what kind of meeting it is (for example, a general meeting, an emergency meeting, or a meeting devoted to a single issue)
- Precisely where and when the meeting is being held
- Names of the group members in attendance and members absent; names of all other individuals present, except for public meetings with an audience
- The name of the person who called the meeting to order and at what time
- A report of whether or not the previous meeting's minutes were read and, if they were read, whether or not they were approved (or approved with modifications)
- Summaries of any reports presented to the group and any action taken on them (acceptance, approval, endorsement, referral)
- A summary of the discussion of each item on the agenda and any other important issues discussed at the meeting
- A record of all formal motions, including the name of the individual making the motion
- A record of the vote on all motions, including the number of votes for and against, and the number of abstentions
- The time that the meeting was formally concluded

Informal minutes also include the date of the meeting and the names of all members attending or absent, but they focus more on summarizing key points of discussion and listing all action items to be performed by individuals or the group.

Minute Example

- See the example link.



Literature Reviews

- Summarize existing printed or electronic information on a specific subject in a literature review.
- A literature review may be a self-contained document, or it may be a section of a larger report.
- Determine the amount, scope and density of information to be included in your review by assessing your audience's purpose and their level of expertise.
- They prevent needless duplication of work and provide crucial information for current projects.



Literature Reviews

- Begin your literature review with an introduction that gives reader the context and scope of your specific topic.
- Make the review as concise as possible and eliminate any unessential material.
- End a self-contained literature review with a conclusion that summarizes the information that is most important to the reader.
- Cite all references in the appropriate format, and include all sources in a bibliography or works-cited section at the end of the document.
- Organize a literature review either chronologically or by dividing the topic into subtopics and then presenting the subtopics in order of importance, starting with most important subdivision.



Literature review Example

- See Word link
- Example presents the first part of a fairly extensive report on the history, chemical syntheses, and uses of the chemical compound cantharidin.
- Notice how the forecasting statement that opens the introduction provides the reader with an effective road map of the entire paper.
- Each reference is clearly mentioned in the text, and all the references adhere to the same style of sequence-citation.



Reports

- Reports are standard documents in all organizations.
- A report is a stand-alone document that relays the results of a factual inquiry to other parties who have a professional interest in the results, expert opinions, laboratory tests, policy issues, trips, and administrative details--anything of importance to the professional organization.
- Because a report typically circulates as an independent document, it will typically follow a standard format that begins with a front matter section that orients the reader to the main purpose and content of the report. This section is followed by a report body, which contains the factual content of the report, and the body is followed by a section of end matter, which contains various references and secondary material.



Reports

- Reports may be internal or external, informal or formal.
- The informal report circulates within the local environment and is generally not written about externally funded research.
- The material of an internal report often takes the form of a memorandum, which is a stripped-down version of the internal report, using a standard header.
- Informal reports are often short and concern administrative and policy issues or perform the function of keeping others informed about your work.
- Formal reports are generally tightly structured and extensively reviewed before they are released.
- Report structure may vary according to the intended audience. For example, the same material may be organized for peer specialists or for a managerial audience.



Laboratory report

- Presented in the form of a brief **memorandum**.
- See Word link.



Research Reports

- Research reports present the results of formal investigations into the properties, behavior, structures, and principles of material and conceptual entities.
- Almost any physical phenomenon or concept may be investigated in a research framework.
- See word link



Research Article

- In the following example of a student research article, take note of these elements:
 - Title
 - Abstract
 - Introduction
 - Background
 - Theory
 - Experimental section
 - Results
 - Discussion
 - Conclusion
 - References and notes
- See Example on word link



Design and Feasibility Reports

- Design and feasibility reports describe one or more design solutions to a specific problem and determine if the proposed solution is practical and feasible.
- Preferably, more than one solution is offered, in which case the report compares the various designs and determines which option is best.
- Design and feasibility reports are essentially the same type of document, differing only in the amount of emphasis placed on **practical** and **economic viability** of the design in comparison with other possible solutions.
- A **design report**, often very similar to an internal proposal, focuses on describing **one** specific implementation.
- A **feasibility study**, on the other hand, also emphasizes the investigation and comparison of **alternative solutions**.



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- A design report, often very similar to an internal proposal, focuses on describing one specific implementation. A feasibility study, on the other hand, also emphasizes the investigation and comparison of alternative solutions.
- Design reports and feasibility reports are crucial for decision making and product development in almost any technical organization. They document an engineer's thinking through a solution to a problem, a description of the solution, and the reasons why that solution should be implemented. Managers need accurate and comprehensive feasibility and design reports to decide where to commit scarce resources. In addition, an accurate and comprehensive design report helps in developing other documents, such as formal proposals, specifications, and work plans.

Format of Design and Feasibility Reports

- 1. Abstract
- 2. Introduction
- 3. A list of design criteria, in order of importance with the most important first.
- 4. Descriptions of possible implementations.
- 5. A recommendation with a comparison of alternatives.
- 6. Elaboration of design.
- 7. Conclusion, with recommendations for further actions and a listing of issues that must be resolved before the design can be implemented.
- Example: See word link



Progress Reports

- Project monitoring and accountability are the main objectives of progress reports.
- The typical progress report gives some summary of the project goal, states the progress made toward that goal during the reporting period, discusses significant costs and scheduling issues, and lists future objectives to be carried out.
- Generally, progress reports are prepared at intervals, most frequently at quarterly intervals of the fiscal year. The intervals are often specified in the initial project proposal.



Progress Reports

- Consultants use progress reports to maintain contact with sponsors.
- Research organizations use progress reports to inform funding organizations, government or commercial, of their work progress.
- Internal research workers use progress reports to report on their work to managers and others within their own organizations.
- Progress reports are useful tools for management in keeping track of work progress in their groups, and they also furnish researchers a structure for monitoring their own commitments and levels of support.



Progress Report Format

- Project title, funding source, contract number, funding period, report date, research organization, and funded staff
- Project summary, overview, report of progress, problems (cost or schedule issues), future work
- References, attachments



Consulting Report

- The consulting report provides expertise on technical problems for audiences that are not expert in the field of interest.
- Consulting reports are written by outside experts for groups or organizations that do not have the time or the expertise to treat the subject or problem.
- One common variation on the consulting report is the white paper, which examines a general problem from an expert's perspective.
- White papers do not present experimental inquiries but, rather, cover a series of findings or generalizations based on expert insights into a problem or class of problems and a set of issues.
- These findings constitute the body of the consulting report. In other respects, the consulting report follows the general structure of the formal report: front matter, body, and back matter.



Trip Reports

- a common part of organizational communication.
- They generally follow the format of a Memo, addressed to one or more members of a group of associates.
- They should include the reason for the trip, what was found, and one or more conclusions.

MEMORANDUM

TO: P. Childre, Director of Corporate Relations, GHX
FROM: P. Rose, J. Roos
SUBJECT: Trip Report: Telecommunications Program at National University
DATE: December 1, 1993

On October 24, 1993 we visited the Telecommunications Program at National University. Our primary interest was to learn more about their communication and switching research and we also wanted to review GHX recruitment of participants in their program.

The Program

The Graduate Telecommunications Program at National University is located in the Department of Computer Science and the Business School. Entering students with engineering or science backgrounds concentrate on technical areas while those with liberal arts or business education study policy, planning and regulatory issues. The Master's curriculum concentrates on systems, including requirements specifications, design, implementation, and management. The new Ph.D. program concentrates on network services and systems.

In our discussions with Dean Les Popkin, Professor James Jones (a GHX intern 1985), and other administrators, the GHX recruiting of the Program's graduates was repeatedly mentioned. We think that graduates of the program would be well qualified to join GHX in a variety of areas. We took the liberty of suggesting that the NU's administrators contact Mary Gross and Ellen Howe to discuss these issues with them.

Trip Report (12-1-93)
Rose and Roos--2

Faculty Research

We were impressed by the research plans of John Thomas and Susan Stans. Thomas is another GHX veteran. He is planning a research program on optical communications networks, photonic switching architectures, and associated service provisioning. He is also interested in teaching on-site short courses on switching systems and is very knowledgeable about GHX switches and systems. Stans is a recent National graduate who received her Ph.D. under J. Stillman. She is interested in policy issues particularly those related to standards and to economics of service provision. She also has a first class technical background. She has done a recent study on the decision making process of standard-setting bodies with the goal of accelerating this normally very slow process.

Recommendation

Interactions with John Thomas and Susan Stans would be beneficial for GHX Laboratories. The Laboratories will support their NSF grant application. We should also keep in touch with them, and once they have students pursuing research we should support one of them. Stans should be used as a consultant on various policy/standards issues in a more ad hoc manner. We also recommend that Corporate College Relations and the GHX Foundation evaluate NU's Telecommunications Program from the point of view of further research interests.

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