

Systems Planning and the Initial Investigation

Chapter 4

Initial Investigation

- This is the first phase of SDLC and is known as identification of need.
- This is a user's request to change, improve or enhance an existing system.
- The objective is to determine whether the request is valid or feasible
- The user request identifies the need for change and authorizes the initial investigation.

User's Request Form

- User assigned title of work requested.
- Nature of work requested (problem definition)
- Date request was submitted
- Date job should be completed
- Purpose of job requested

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- Expected benefits
- Input/Output description
- Requester's signature title, department, and phone number.
- Signature, title and department of person approving the request.

Needs Identification

- The success of a system depends largely on how accurately a problem is defined, thoroughly investigated and properly carried out through the choice of solution.
- It is concerned with *what the user needs rather than what he/she wants*.

Determining the User's Information Requirements

It is difficult to determine user requirements because of the following reasons:

- System requirements change and user requirements must be modified.
- Articulation of requirements is difficult.
- Heavy user involvement and motivation are difficult.
- The pattern of interaction between users and analysts in designing information requirements is complex.

Strategies used by the Users

- **Kitchen Sink Strategy-** user throws everything into the requirement definition, overstatement of needs such as an overabundance of reports
- This approach usually reflects the user's lack of experience in the area

Smoking Strategy

- It sets up a smoke screen by requesting several system features when only one or two are needed.
- Requests have to be reduced to one that is realistic, manageable and achievable

Same Thing Strategy

- This strategy indicates the user's laziness, lack of knowledge or both.
- “Give me the same thing but in a better format through the computer” is a typical statement.
- The analyst has little chance of succeeding because only the user can fully discover the real needs and problems.

Human's limitations

- Humans as information processors
- Human bias in data selection and use
- Human problem solving behavior

Strategies for Determining Information Requirements

- Asking
- Getting Information from the existing information system
- Prototyping

Asking

- This strategy obtains information from users by simply asking them about their requirements.
- The three methods of asking are:
 - Questions (open-ended or closed)
 - Brainstorming
 - Group Consensus (Delphi Technique)

Getting Information from the existing information system

- Data Analysis
 - Determining Information from existing system. It simply asks the user what information is currently received and what other information is required.
 - Ideal for Structured Decisions.
- Decision Analysis
 - In this problem is broken down into parts, so that user can focus separately on the critical issues.
 - It is used for Unstructured Decisions.

Problem Definition and Project Initiation

- The problem must be stated clearly, understood, and agreed upon by the user and the analyst.

Background Analysis

- Once the project is initiated, the analyst begins to learn about the setting, the existing system, and the physical processes related to the revised system.

Fact Finding

- After obtaining the background knowledge, the analyst begins to collect data on the existing system's outputs, inputs and costs,
- The tools used in data collection are:
 - Review of written documents
 - On site observations
 - Interviews
 - Questionnaires

Assignment

- Elaborate on the technical and interpersonal skills required of system analyst
- Illustrate the difference between open ended and closed questions
- Why it is difficult to determine user requirements
- What important information does the user's request form provide? Why is it so important in the initial investigation? Explain in detail