

UNIT -4

Data and facts gathering techniques:-

For an **Analyst** Data and fact gathering is important step, on which he/she can develop better understanding of existing system and its problems, based on this **analyst** can understand the requirements of new system.

There are **various techniques to gather data and facts** of **system**. some of them re as follows :

1. Record view and Background reading
2. Interviews
3. Questionnaires
4. Group communication
5. Presentation
6. Site visiting
7. Observation

- **Record view and Background reading** : Information related to system and organization is already available in some type documents and records(like system user manual , system review/audit, brochures etc.) or is published in the sources like newspapers, magazines, journals etc. Study of already available document is the fastest and independent way of gathering fact and information based on which analyst can prepare questions for further gathering exercise.
- **Interviews** : This method is used to collect the information from groups or individuals. Analyst selects the people who are related with the system for the interview. In this method the analyst sits face to face with the people and records their responses by which analyst learn about the existing system, its problem and expectation with the system. The interviewer must plan in advance the type of questions he/ she is going to ask and should be ready to answer any type of question. The information collected is quite accurate and reliable as the interviewer can clear and cross check the doubts there

itself. This method also helps gap the areas of misunderstandings and help to discuss about the future problems.

- **Questionnaires** : This method seeks information from the person in written and prescribed format. This is a quickest way for gathering information if respondents are scattered geographically or there is no time for the interviews. Questions can be : structured or unstructured. structured question where the answers are in the form of YES/NO , multiple choice option selection , ratings, fill int hte blanks. unstructured questions where person is asked for his opinion and he/she can answer it freely.
- **Group Communication** : This method is often used when there no time for personal interview and information is required from face to face sessions. As there are many person present many type of ideas can be heard. Scheduling such sessions is a skillful matter because it has many problems such as : discussion may be dominated by one person others may shy to respond, presence of seniors in the group may not allow others to present their views freely, discussion may lead to verbal fight etc.
- **Presentation** : Sometime presentation can also be conducted by analyst for presenting his understanding for the system and problems with it. Such presentation may include showing slide , interacting with people and talking to them regarding system, asking questions, answering questions etc. Presentations are useful when users are passive or too busy to actively explain things.
- **Site Visiting** : it is the process of examining the problems which had previously solved by other sources that can be either human or documents. To solve the requirements of problem, the analyst visits to other organization that had previously experienced for similar problems. In addition, the analyst can also find the information from database, reference books, case studies and Internet
- **Observation** : Another fact finding technique is observation. In this technique, system analyst participates in the organization, studies the flow of documents, applies

the existing system, and interacts with the users. Observation can be a useful technique when the system analyst have user point of view. Sampling technique called work sampling is useful for observation. By using this technique, system analyst can know how employees spend their days.

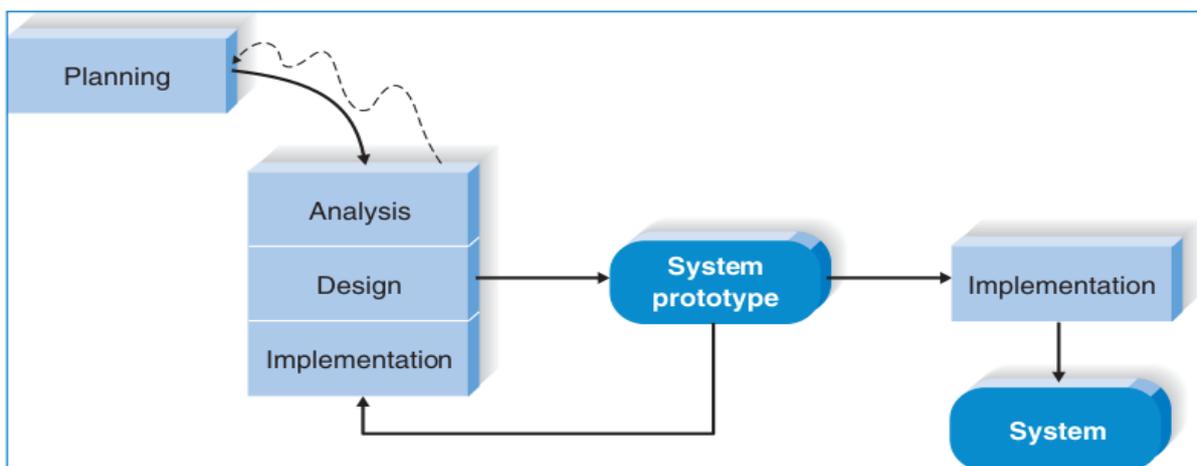
- ## Modern Methods for Determining System Requirements

- Even though we called interviews, questionnaires, observation, and document analysis traditional methods for determining a system's requirements, all of these methods are still used by analysts to collect important information. Today, however, additional techniques are available to collect information about the current system, the organizational area requesting the new system, and what the new system should be like. In this section, you learn about two modern information-gathering techniques for analysis: joint application design (JAD) and prototyping. These techniques can support effective information collection and structuring while reducing the amount of time required for analysis.

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- ### Joint Application Design
- There you learned JAD started in the late 1970s at IBM as a means to bring together the key users, managers, and systems analysts involved in the analysis of a current system. Since the 1970s, JAD has spread throughout many companies and industries. For example, it is quite popular in the insurance industry. The primary purpose of using JAD in the analysis phase is to collect systems requirements simultaneously from the key people involved with the system. The result is an intense and structured, but highly effective, process. Having all the key people
- **System prototyping** performs the analysis, design, and implementation phases concurrently in order to quickly develop a simplified version of the proposed system and

give it to the users for evaluation and feedback. (See Figure 2-6).

- The **system prototype** is a “**quick and dirty**” version of the system and provides minimal features. Following reaction and comments from the users, the developers reanalyse, redesign, and reimplement a second prototype that corrects deficiencies and adds more features.
- This cycle continues until the analysts, users, and sponsor agree that the prototype provides enough functionality to be installed and used in the organization. **System prototyping** very quickly provides a system for users to evaluate and reassures users that progress is being made. The approach is very useful when users have difficulty expressing requirements for the system.
- A **disadvantage**, however, is the lack of careful, methodical analysis prior to making design and implementation decisions. **System prototypes** may have some fundamental design limitations that are a direct result of an inadequate understanding of the system’s true requirements early in the project



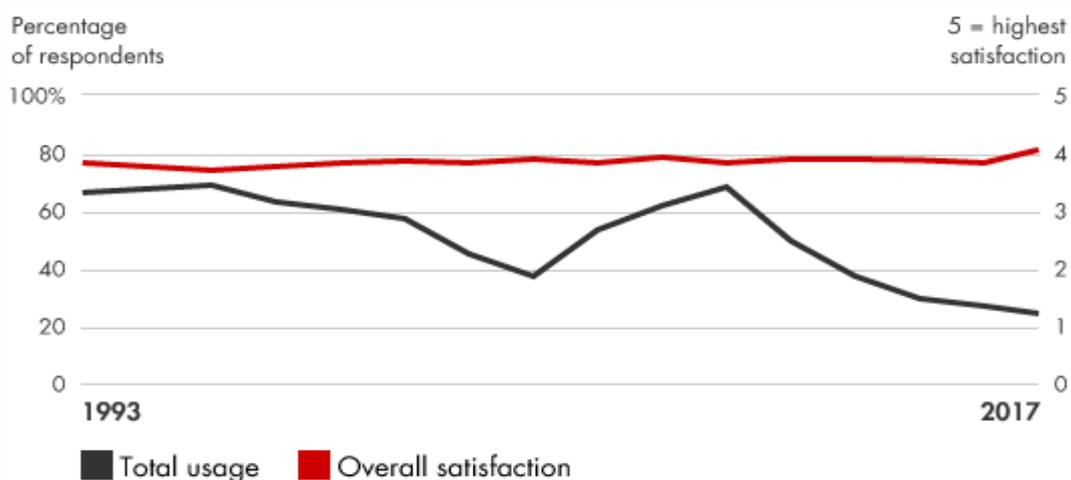
Business Process Reengineering

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Business Process Reengineering involves the radical redesign of core business processes to achieve dramatic improvements in productivity, cycle times and quality. In Business Process Reengineering, companies start with a blank sheet of paper and rethink existing processes to deliver more value to the customer. They typically adopt a new value system that places increased emphasis on customer needs. Companies reduce organizational layers and eliminate unproductive activities in two key areas. First, they redesign functional organizations into cross-functional teams. Second, they use technology to improve data dissemination and decision making.

Usage and satisfaction among survey respondents



How Business Process Reengineering works:

Business Process Reengineering is a dramatic change initiative that contains five major steps that managers should take:

- Refocus company values on customer needs
- Redesign core processes, often using information technology to enable improvements
- Reorganize a business into cross-functional teams with end-to-end responsibility for a process
- Rethink basic organizational and people issues
- Improve business processes across the organization