Information can be defined as meaningfully interpreted data. If we give you a number 1-212-290-4700, it does not make any sense on its own. It is just a raw data. However if we say Tel: +1-212-290-4700, it starts making sense. It becomes a telephone number. If I gather some more data and record it meaningfully like:

| Address: 350 Fifth Avenue, 34th floor  
| New York, NY 10118-3299 USA  
| Tel: +1-212-290-4700  
| Fax: +1-212-736-1300 |

It becomes a very useful information - the address of New York office of Human Rights Watch, a non-profit, non-governmental human rights organization.

So, from a system analyst's point of view, information is a sequence of symbols that can be construed to a useful message.

An **Information System** is a system that gathers data and disseminates information with the sole purpose of providing information to its users.

The main object of an information system is to provide information to its users. Information systems vary according to the type of users who use the system.

A **Management Information System** is an information system that evaluates, analyzes, and processes an organization's data to produce meaningful and useful information based on which the management can take right decisions to ensure future growth of the organization.

**Information Definition**

*According to Wikipedia:*

> "Information can be recorded as signs, or transmitted as signals. Information is any kind of event that affects the state of a dynamic system that can interpret the information.

> Conceptually, information is the message utterance/expression being conveyed. Therefore, in a general sense, information is "Knowledge communicated or received, concerning a particular fact or circumstance". Information cannot be predicted and resolves uncertainty."

**Information Vs Data**

Data can be described as unprocessed facts and figures. Plain collected data as raw facts cannot help in decision-making. However, data is the raw material that is organized, structured, and interpreted to create useful information systems.

Data is defined as 'groups of non-random symbols in the form of text, images, voice representing quantities, action and objects'.

Information is interpreted data; created from organized, structured, and processed data in a particular context.

*According to Davis and Olson:*

> "Information is a data that has been processed into a form that is meaningful to recipient and is of real or perceived value in the current or the prospective action or decision of recipient."
Information, Knowledge and Business Intelligence

Professor Ray R. Larson of the School of Information at the University of California, Berkeley, provides an Information Hierarchy, which is:

- Data - The raw material of information.
- Information - Data organized and presented by someone.
- Knowledge - Information read, heard, or seen, and understood.
- Wisdom - Distilled and integrated knowledge and understanding.

Scott Andrews' explains Information Continuum as follows:

- Data - A Fact or a piece of information, or a series thereof.
- Information - Knowledge discerned from data.
- Business Intelligence - Information Management pertaining to an organization's policy or decision-making, particularly when tied to strategic or operational objectives.

Information/Data Collection Techniques

The most popular data collection techniques include:

- Surveys: A questionnaire is prepared to collect the data from the field.
- Secondary data sources or archival data: Data is collected through old records, magazines, company website etc.
- Objective measures or tests: An experimental test is conducted on the subject and the data is collected.
- Interviews: Data is collected by the system analyst by following a rigid procedure and collecting the answers to a set of pre-conceived questions through personal interviews.