

(*) Introduction

^ The largest computer network, the INTERNET, has billions of users in the world who use WIRED and WIRELESS transmission media to connect small and large computers.

DATA refers to INFORMATION presented in whatever FORM is agreed upon by the parties CREATING and USING it.

DATA COMMUNICATIONS is the exchange of DATA between two devices via a combination of HARDWARE (physical equipment) and SOFTWARE (programs).

The EFFECTIVENESS of a data communications system depends upon –

1. DELIVERY –

Delivery must be ensured ONLY to the CORRECT destination.

2. ACCURACY –

Data ALTERED during transmission must be CORRECTED.

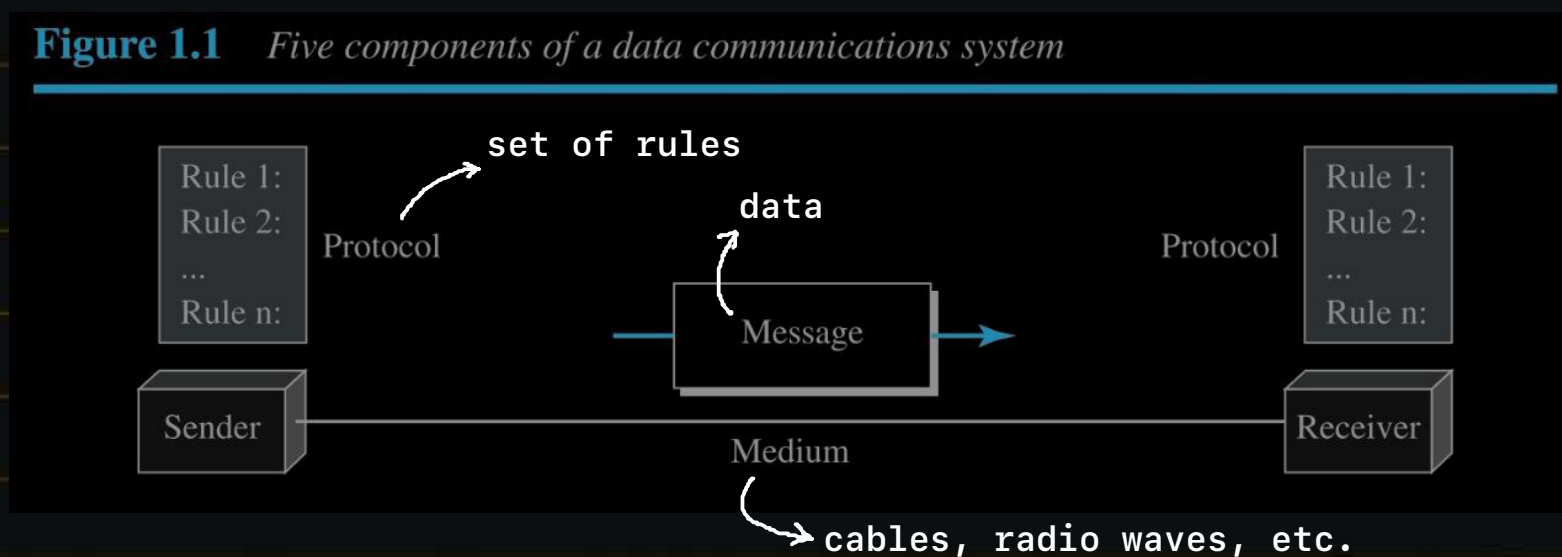
3. TIMELINESS –

Data must be delivered AS they are produced, in the same ORDER that they are produced, and without significant DELAY.

4. JITTER –

The variation in the ARRIVAL RATE of data must be minimized.

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Without a PROTOCOL, two devices may be CONNECTED but not able to COMMUNICATE, just as a person speaking French cannot be understood by a person who only speaks Japanese.

Data/Information can come in different FORMS, such as text, numbers, images, audio and video.