

Analog and Digital Signals, Time and Frequency Representation of Signals

Required reading:
Forouzan 3.1, 3.2, 3.3
Garcia 3.1, 3.2

CSE 3213, Fall 2015
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- **Data vs. Signal**
- **Analog vs. Digital**
- **Analog Signals**
 - **Simple Analog Signals**
 - **Composite Analog Signals**
- **Digital Signals**

Data vs. Signal

Data – information formatted/stored in human/machine readable form

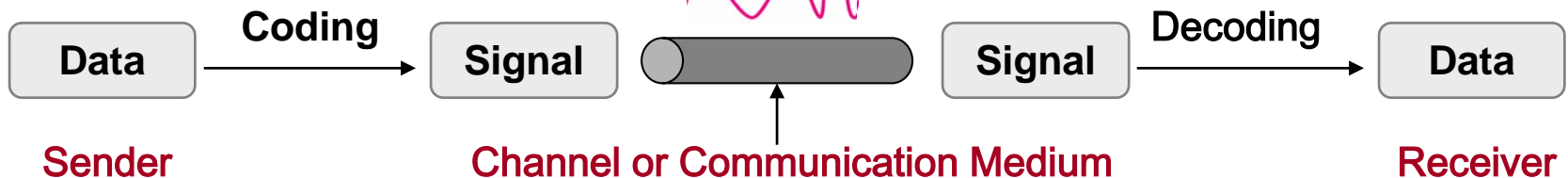
- examples: **voice, music, image, file** recording

Signal – electric or electromagnetic representation of data

- transmission media work by conducting energy along a physical path; thus, **to be transmitted, data must be turned into energy in the form of electro-magnetic signals**

Transmission – communication of data through propagation and processing of signals

Idea, Feeling, Knowledge



Wave on a String ...

