

# DIGITAL CONTENT

## THE BASICS

- Data
  - Representation of entities using discrete symbols
  - Singular: datum
  - In computer terms, is not synonymous with information
    - Representation of data in “human-friendly” formats
- Data representation
  - The form imposed on data for use in the input-processing-output (IPO) cycle/s
  - Digital
    - Sequences and patterns of discrete digits
    - Binary
      - Sequences that contain patterns of only two possible states

- Most widely used type of digital representation
  - Examples:
    - Binary digits
      - representation using 0s and 1s
      - bit
        - The unit in the binary system that can be either 0 or 1
        - Derivative of BInary digiT
      - Storage medium used by the American Standard Code for Information Interchange (ASCII)
    - DC Electronics
      - Signals of 5 volts or 0(-0.2) volts
    - Optical
      - Signals of light pulses
    - Magnetic

- Particles with varying positive and negative charges
- Analog
  - Sequences that may contain patterns of an infinite set of values
    - Examples
      - Vinyl records
        - Infinite variability in groove depth and contour
      - Physical art mediums and film
        - Infinite color combinations and exposures
      - Dial readouts
        - Infinite degree readings

- Digitization
  - Recording or storage of data in a digital format
  - Can be used of both
    - retroactive conversion of stored analog information
    - Capture of real-time information
- Digital File (File)
  - A uniquely-named reproducible collection of data
  - Stored on one of the above mentioned digital storage mediums
    - Magnetic, optical, binary
  - Format
    - Indicates the type of data and the method of encoding
    - Denoted by the file name extension
      - a sequence preceded by a period (.) which may be appended to the file name

