BITS ENCODE:

- Text: ASCII, 8 bits 1 byte
- Graphics: Drawings, photos
- Sound: 16 bits/sample
- Movies
- Behavior: Apps

MEANING
- Text
- Pix
- Sound
- Movies
- 3D Design

MEANING
- Text
- Printer
- Pix
- Browser
- Sound
- iTunes
- Object
- Movie
- iMovie
- 3D Printer

INTERNET

bits

FEB 26, 2015
**Color** - Aside

**Light** - Screen **Additive**

**RGB**

**Pixel**

R 20%
G 10%
B 70%

**Print, Paint** - **Subtractive**

**RYB**

Cyan Magenta Yellow
**Bits Are**

1. Sufficient - All Info. (Universal)
2. Stable - Reliable
3. Immutable - With Enough Redundancy (Shannon)
THEN - BITS \rightarrow SOUND \rightarrow BITS
TODAY - SOUND \rightarrow BITS \rightarrow Bits

IP Address: Unique to each node

Image \rightarrow BITS
PACKETS

Global: 123.007.146.22, local
IP = Internet Protocol (Routing)
TCP = Transport Control Protocol

TCP/IP

Packets
  - Creates packets
  - Reassembles packets into image.

IP Address: 32 bits \( \approx 4 \times 10^9 \) billion

No master controller

Developed - ARPA/Government

(DARPA)

Self healing

Routes around disabled nodes
**Trends**

1. **Cheaper** - bits are free
2. **Faster** -
3. **Denser** - more storage
4. **Easier** -

**World Wide Web**


Protocol - [World Wide Web](http://www.wikipedia.org)

**Universal Resource Locator**

**Browser**

**CERN** - Switzerland
SOCIAL MEDIA
  . FACEBOOK
  . TWITTER

ORGANIZE INFORMATION
  . FILTER, REDUCE NUMBER OF OPTIONS
FRIENDS
THREADS #springbreak