

**WESTERN MICHIGAN UNIVERSITY**  
**in Cooperation with Heartland Records**  
**Proudly Presents: Gershon in Las Vegas**  
**featuring his new hit single:**  
**I was a Sinner on the Information Highway**  
Also available at <http://www.Gershon/Sinner@InfoHwy.com>

Analog Communication  
Attenuation  
Bandwidth  
Binary Logic  
    Bistable Devices  
    Bit  
Carrier wave  
Convergence (multimedia)  
Digital Communication  
    Advantages  
    Analog to digital conversion  
    Principles of  
    Pulse Code Modulation  
    Quantizing  
    Sampling rate  
Digital Television  
    Advantages  
    Aspect Ratio  
    Blue ray v. HD DVD Playback Devices  
    High Definition Television  
    Interlace v. Progressive Scanning technique  
    Principles of  
    Standard Definition Television  
    U.S. digital TV conversion plan, challenges  
Digital Video Compression (DVC)  
    MPEG 2. & 4. Standards  
Electromagnetic spectrum  
    Characteristics of Electromagnetic Waves  
Entropy and Redundancy  
Frequency  
Hertz, Hz., Khz., Mhz., Ghz. etc.  
Intelligent Networking  
    1. Decentralization, Principle of  
    2. Immediacy, Principle of  
    3. Personalization, Principle of  
Poole, Ithiel de Sola  
    Convergence of Modes  
Pulse Code Modulation  
Radio Band  
Scientific Management, Frederick Winslow Taylor

Seven Trends in Advanced Video and Graphics  
    1. Enhanced Video Resolution  
    2. Video Streaming

3. Digital Video Compression
4. Video on Demand
5. MP3 File Sharing and Distribution
6. Digital Video Recording
7. Convergence (i.e. multimedia capability)

Shannon, C. & Weaver, W. Mathematical Theory of Communication  
(i.e., Shannon & Weaver model)

Goals and intentions

Limits to the model

1. Information Source
2. Message
3. Transmitter
4. Signal / Channel
5. Receiver
6. Destination
7. Noise

Social Presence theory

Synchronous v. Asynchronous Communication

Technology Efficiency Paradox, Gershon

Toffler, Alvin - Characteristics of the Industrial Age

1. Standardization
2. Specialization
3. Concentration
4. Synchronization
5. Maximization
6. Centralization

Wave Theory (3 stages of technology development)

Wavelength

Wave Propagation

Direct Waves

Ground Waves

Sky Waves