

# Communication Technology & Innovation - Com. 5540

## Reading Assignments

### Required Reading and Materials

- 1) Andrew Keen, *The Cult of the Amateur*,  
(Cambridge, MA: Harvard Business School Press, 2008).
- 2) A set of on-line readings to correspond with weekly topic issues

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## COURSE OUTLINE AND PRESENTATIONS:

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### Week of

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#### **PART I. The Digital Media Environment**

Jan. 6           **THE THIRD WAVE & THE DIGITAL ERA**

Reading:       **Alvin Toffler, *The Third Wave, Principle of Wave Theory***  
Available at: <http://www.glasspath.com/members/mfinley/toffler.htm>

**Nicholas Negroponte, *Being Digital, "The DNA of Information,"***  
Available at: <http://archives.obs-us.com/obs/english/books/nn/ch01c01.htm>

**The New Information Industry**  
Available at: [http://www.iec.org/online/tutorials/new\\_info/index.asp](http://www.iec.org/online/tutorials/new_info/index.asp)  
Sections: 4, 8-10.

Jan. 13         **INFORMATION THEORY**

Reading:       **David Chandler, *Comments on Shannon & Weaver Model***  
Available at: <http://www.aber.ac.uk/media/Documents/short/trans.html>

Jan. 20           **INFORMATION THEORY &  
THE ELECTROMAGNETIC SPECTRUM**

Reading:       **The Electromagnetic Spectrum**  
Available at: [http://imagine.gsfc.nasa.gov/docs/science/know\\_11/emspectrum.html](http://imagine.gsfc.nasa.gov/docs/science/know_11/emspectrum.html)  
and  
<http://www.purchon.com/physics/electromagnetic.htm#radio>

Jan. 27           **DIGITAL COMMUNICATION**

Reading       **Digital Communication**  
Available at: [http://en.wikipedia.org/wiki/Digital\\_communications](http://en.wikipedia.org/wiki/Digital_communications)

**Signal Sampling**  
Available at: [http://en.wikipedia.org/wiki/Sampling\\_%28signal\\_processing%29](http://en.wikipedia.org/wiki/Sampling_%28signal_processing%29)

**Pulse Code Modulation**  
Available at: <http://cbdd.wsu.edu/kewlcontent/cdoutput/TR502/page13.htm>  
and  
[http://en.wikipedia.org/wiki/Pulse-code\\_modulation](http://en.wikipedia.org/wiki/Pulse-code_modulation)

**Nicholas Negroponte, *Being Digital, "Co-Mingled Bits,"***  
Available at: <http://archives.obs-us.com/obs/english/books/nn/ch05c01.htm>

**Digital Video Compression**  
Available at: [http://en.wikipedia.org/wiki/Video\\_compression](http://en.wikipedia.org/wiki/Video_compression)  
and  
<http://www.microsoft.com/windowsxp/using/moviemaker/expert/digitalvideo.msp>

**High Definition Television**  
Available at: <http://hometheater.about.com/cs/television/a/aahdtvfaqsa.htm>

Feb. 5th         **INNOVATION and TECHNOLOGY MANAGEMENT**

**W.C. Kim and R. Mauborgne, *Blue Ocean Strategy*, pp. 3-22**  
Available at:  
[http://books.google.com/books?id=fKTllv6\\_O74C&dq=blue+ocean+strategy&printsec=frontcover&source=bn&hl=en&sa=X&oi=book\\_result&resnum=4&ct=result#PPA1,M1](http://books.google.com/books?id=fKTllv6_O74C&dq=blue+ocean+strategy&printsec=frontcover&source=bn&hl=en&sa=X&oi=book_result&resnum=4&ct=result#PPA1,M1)

Feb. 10      **SATELLITE COMMUNICATION I.**

**Satellite Communication – Technical Description**

Available at: WMU Electronic Readings –  
R. Gershon, *Telecommunications & Business Strategy*

<http://www.scribd.com/doc/7089246/View-Graphs-Fundamentals-Satellite-Communication-Part-1>

Slides: 1-27.

Intelsat Satellite coverage maps

Available at: <http://www.intelsat.com/network/satellite/>

Feb. 17      **SATELLITE COMMUNICATION II.**

Feb. 24      **CELLULAR TELEPHONY and WIRELESS COMMUNICATION**

**Cellular Communication – Technical Description**

Available at: [http://www.iec.org/online/tutorials/cell\\_comm/topic03.asp](http://www.iec.org/online/tutorials/cell_comm/topic03.asp)

Sections: 1-6.

**PART III. Intelligent Networking**

Mar. 10      **INTELLIGENT NETWORKS**

Mar. 17<sup>th</sup>

Principles of Networking, Switching and Transmission

[http://www.iec.org/online/tutorials/fund\\_telecom/topic02.asp](http://www.iec.org/online/tutorials/fund_telecom/topic02.asp)

Sections: 2-4.

WMU Electronic Reading – Gershon, Intelligent Networking Paper

Mar. 24      **CABLE AND FIBER OPTIC COMMUNICATION**

**Fiber Optic – Technical Description**

Available at: [http://www.iec.org/online/tutorials/fiber\\_optic/index.asp](http://www.iec.org/online/tutorials/fiber_optic/index.asp)

Mar. 31           **TELEPHONE COMMUNICATIONS**

Apr. 2

Thursday

**Telephony**

Available at: WMU Electronic Readings –  
R. Gershon, *Telecommunications & Business Strategy*

**Signaling System 7 (SS7)**

Available at: <http://www.iec.org/online/tutorials/ss7/topic01.asp>  
Sections 1-4.

Apr. 7           **INNOVATION, COMMUNICATION and CHANGE MANAGEMENT**

Andrew Keen, *The Cult of the Amateur*, (Cambridge, MA:  
Harvard Business School Press, 2008).

Apr. 14           **VIRTUAL REALITY**