SCIENTIFIC ASSEMBLY

AMERICAN COLLEGE OF EMERGENCY PHYSICIANS

1999

20 Ways in Which the Internet Has Changed My Medical Practice

No emergency physician ever need practice medicine alone in this day of a globaly connected community. The latest textbooks, clinical studies, guidelines for treatment, and expert consultation are all available with only a few keystrokes. This on-line demonstration of the Internet will provide the "nuts and bolts" that physicians need to efficiently cruise the Internet.

- Discriminate among different Internet programs and providers.
- Discover new ways to improve the delivery of clinical care with use of the Internet.
- Learn how to troubleshoot the Internet for inefficiency and misinformation.

TH-225
Thursday, October 14, 1999
11:00 AM - 11:55 AM
Room # N227
Las Vegas Convention Center

FACULTY

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Emergency Medicine Web Sites

Site	Description
www.acep.org	American College of Emergency Physicians
www.saem.org	Society for Academic Emergency Medicine
www.ena.org	Emergency Nurses Association
www.cdc.gov/eop/mmwr/mmwr.html	Centers for Disease Control
www.wwrem.com	Weekly Web Review in Emergency Medicine
www.emed.org	Professional web site for emergency physicians
http://ncemi.org	Real clinical tools for Emergency Medicine
www.cmeweb.com	Continuing Medical Education
www.edreview.com	Emergency Department Review
www.virtualer.com	Virtual ER
www2.hawaii.edu/medicine/pediatrics/pemxray/pemxray.html	Pediatric ER cases
www.vch.vh.org	Virtual Children's Hospital
www.medmedia.com	Wheeless' textbook of orthopedics
indy.radiology/uiowa.edu/Providers/TeachingFiles/NormalRad Anatomy/Text/RadM1title.html	Virtual Hospital - Normal X-Rays
www2.umdnj.edu/radweb/intr_cme.html	RadWeb
www.medweb.emory.edu/medweb/	MedWeb at Emory Univ. – Web Directory
www.medmarix.org	Medial Matrix – Web Directory
www.ohsu.edu/cliniweb/wwwvl/	WWW Virtual Library
www.nlm.nih.gov/databases/freemedl.html	MedLine
www.mdconsult.com	MDConsult (journals & textbooks)
www.emedicine.com/emerg/	Online emergency medicine textbook
www.clark.net/pub/electra/cse0.html	Common online EM textbook
http://telemediine.org/stamfor.htm	Online Dermatology textbook
http://cochrane.org	Cochrane Collaboration for evidence based medicine
www.journalclub.org	Online Journal Club
www.pdr.net	Online Physician's Desk Reference
www.rxlist.com	RxList
www.trauma.org	Trauma Web Site
www.intmed.mcw.edu/antibioticguide.html	MCW & FMLH Antibiotic Guide
www.stanford.edu/~naked/stms.html	Stanford Travel Medicine
www.nlm.nih.gov/research/visible/visible_human.htnl	Visible Human Project
www.cdc.gov/epo/mmwr/mmwr.html	Morbidity & Mortality Weekly Report
www.signsandsymptoms.com	Signs & Symptoms Web Resource Page
www.medscape.com	MedScape
www.etrauma.com	Remote Image

20 Ways the Internet Has Changed My Life

Definition: Web

A web or net is a transparent or disguised device intricately contrived by a predator; that ensnares or entangles its unsuspecting prey. . . .

Todd B. Taylor, MD, FACEP

The Statistics

- Never been on the Internet?
  - 18% of CEO's
  - 17% of teenagers
  - 33% of kids
- Computer magazine readers?
  - 8% work in an IT Department
  - 76% don't even know what IT stands for
- Americans have an old computer
  - 8% have one in the garage
  - 30% have one in the den
- 14% read e-mail while on vacation.

The Statistics

- 70.2 Million adults use the internet
- $55,000 is the average salary
- 37 is the average age
- 320 million web pages

The Statistics

- 6% of American are "addicted" to their computer.
- 4 of 5 college students use the internet 100 min/day.
- 10% say it hurts their grades or interferes with social interaction
- Computer science majors use the internet more than 6 hours/day.

Infrastructure

"A meteor could hit this country & bounce right off, there's so much fiber under ground."

Jim Southworth
Concentric Network

Infrastructure

"High tech is not about the computer. It's about what happens when you connect all the computers and how that really changes society.

You'll be surprised at how technology improves your life in ways that you then take for granted.

[This is similar] to your [TV] remote control and your garage door opener."

Kevin Landis, Portfolio Manager
Firsthand Technology Funds
(50% annualized return over the last 5 years)

#1 Communications

- E-mail
- Broadcast E-mail
- V-mail
- List Servers
- Push Technology
- Web Phone

#2 Information Exchange

- Data file transfers
- Remote telecommuting
- Video conferencing
- "Internet PC"

#3 Information

- When President Clinton took Office:
  - Only 50 web sites
  - Now 65,000 are added every hour world-wide
- 1997: 100 million logged on - 1996: 40 million
- Information technology represents 8% of the American economy.
- We will require 1.3 million new IT workers in the next 10 years. More than build cars today.

William M. Daley
Secretary of Commerce

#3 Information

"As government & industry continue posturing about how to protect privacy, little has been resolved."

Cathyrn Baskin
Editor in Chief
PC World

#4 Commerce

Microsoft & the University of Hertfordshire in Hatfield, England, conducted an experiment to see if human beings can survive with nothing but a connected computer and a credit card - i.e. to survive only with stuff they could but on line. Four volunteers were locked in a room for 5 days, each armed with only a credit card with an $800 limit & an internet PC. Slots in the door allowed delivery people to hand them what they ordered.

Windows Magazine
August 1999

#5 Wasting Time

- Internet users sent 5 trillion e-mail messages in 1998
- More than 50% of American Homes now have computers.
- About 40% of US adults (80 million) are online

#6 Entertainment

- Games
- Gaming
- Surfing (exploring)
- Video
- Music
- Virtual vacations

#7 Pornography

- It has been said 80% of the Web's success is a direct or indirect result of the sex trade.

#8 Immediate Gratification

- 24/7
- Information that is difficult if not impossible to find elsewhere
- Misinformation & disinformation
- All you need is a credit card & you can get almost anything on the web

#9 Automatic Software Updates

- Windows has updating built-in
- Upgrading is cheap and often free
- Will see the delivery of software over the web when the band-width problem is solved
- Remote Internet PC

#10 Technical Support

- Web Tech
- 24/7
- Posted solutions
- Everyone has a web site

#11 Finances

- Online Banking
- Online Billing
- Investment Research
- Investing

#12 Humor

- Stories
- Movies
- Pictures

Emergency Department

- Productively
- CME
- Online texts & info
- Hospital Status
- Telemedicine
- Consultation
- Research

#13 Productivity

"Computers can be used to automate only so many things. Once word processors, data base managers, & spreadsheets were invented and perfected, what else was there? Just games. The modem-equipped machine was good for remote access; then the Web was invented, & now there is nothing left to conquer."

John C. Dvorak
PC Magazine
October 5, 1999

#13 Productivity

Managed Care & Patients:

"It may be faster cheaper for them to interact with the plan by using electronic means rather than paper, phone, or fax. And it requires fewer office staff."

Charles Saunders, MD
VP & Medical Director
Healtheon, Santa Clara, CA

#14 CME

- The "virtual" conference
- "Shove" technology
- Online
  - Journal club
  - Journals
  - Testing

#15 Online Texts & Info

- Millions of Web Sites
- Eventually ALL information will move to the web

#16 Hospital Status

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#17 Telemedicine

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#18 Consultation

- Patients may know as much or more
- Good & bad web-formation
- New Specially: Web Medicine

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#19 Research

- Where it all began
- "New" internet being developed solely for research.

#19 Research - JAMA 10/21/98

- Access to Health Information & Support: A Public Highway or a Private Road?
- Effects of Computer-Based Clinical Decision Support Systems on Physician Performance & Patient Outcomes
- How Well Do Physicians Use Electronic Information Retrieval Systems?
- Clinical Decision Support Systems to Improve Clinical Practice & Quality of Care.
- Sociohistorical, Legal, & Ethical Implications of E-mail for the Patient-Physician Relationship.
- The Origin, Content, & workload of E-mail Consultations
- Canopy Computing: Using the Web in Clinical Practice

The Future of the Internet

"Long term predictions about the internet are useless. Some futurists in the 1980's predicted that Los Angeles would be abandoned by 1930 because too many horses would clog the streets. Technology rendered that prediction worthless."

Lew Platt, Chairman
Hewlett-Packard