

TrendVision 2004


SOCIOLOGICAL TRENDS

Demographic Changes and the Revolution of Rising Media Expectations

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Courseware page:
IN3.ORG/education/events/040122.htm

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Sociology of Information

- ♦ Rising Media Expectations
- ♦ Digital Generations
- ♦ The Technology Landscape
- ♦ Rich Media Environments
- ♦ Culture & Policy

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"a revolution of rising expectations"



Crane Brinton
 (1898–1968)
 The Anatomy of Revolution
 (1938, rev. ed. 1965)

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Media Expectations



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Media Expectations

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Media Expectations

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Expectations about Information

- ♦ Comprehensive
- ♦ Instantaneous
- ♦ Economical
- ♦ Ubiquitous
- ♦ Processable
- ♦ Essential
- ♦ Empowering

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Digital Generations

	Born
♦ Great Generation	1925-1943
♦ Boomers	1943-1960
♦ Generation X	1960-1980
♦ Generation Y	1980-2000

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Age and IT Experience

CTP →
Web →
DTCOLOR →
DTP →
PC →

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Digital Generations

Year	Technology Milestones	Age					
2003	CDXPO	55	45	40	35	30	25
2002		54	44	39	34	29	24
2001	Tech Crash	53	43	38	33	28	23
2000		52	42	37	32	27	22
1999	Internet Boom	51	41	36	31	26	21
1998	Y2K Frenzy	50	40	35	30	25	20
1997	Palm Pilot	49	39	34	29	24	19
1996	Windows 95 / MSIE / Flash	48	38	33	28	23	18
1995	Amazon.com / Real Audio / MSN	47	37	32	27	22	17
1994	Netscape / GPS / W3C / VRML	46	36	31	26	21	16
1993	Pentium / MPEG-1 / CD-R	45	35	30	25	20	15
1992	Windows 3.1 / Newton PDA / Linux	44	34	29	24	19	14
1991	1 million IP hosts / RAID disks / JPEG	43	33	28	23	18	13
1990	Java / Photoshop	42	32	27	22	17	12
1989	100,000 IP hosts / Lotus Notes / GIF	41	31	26	21	16	11
1988	10BaseT / IRC	40	30	25	20	15	10
1987	10,000 IP hosts / VGA	39	29	24	19	14	9
1986	Prodigy / Hypercard / Windows 1.0	38	28	23	18	13	8
1985	MS Excel / Intel 386	37	27	22	17	12	7
1984	Apple Macintosh / C++	36	26	21	16	11	6
1983	MS Mouse	35	25	20	15	10	5
1982	Compaq / Sun / Novell	34	24	19	14	9	4
1981	IBM PC / PC-DOS	33	23	18	13	8	3

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Demography is destiny

	1900	2000
U.S. Population (millions)	76	281
Average life expectancy (years)	47	77
Median age (years)	23	35
People age 65 and older (millions)	3	35
Non-White (%)	12	25
Most common number of people in a household	7	2

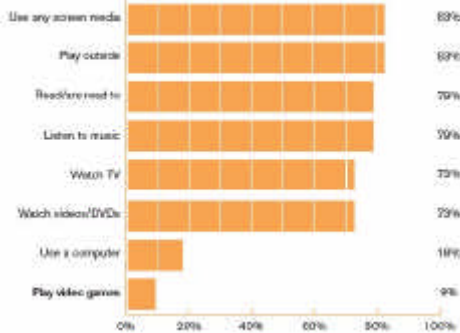
Urban, older, alone ...

	1950	2000
City dwellers (percent)	56	80
Married couple households (%)	78	52
Single person households (%)	10	26
Percentage of married households with children (%)	60	46
Percentage of male households with child but no wife (%)	19	50
Monthly visitors to personals web sites (millions)		16
Adult content web pages (millions)		260

and media-rich

U.S. Households on-line (%)	70%
50-64 year-olds on-line (%)	55%
65+ year-olds online (%)	28%
KIDS:	
Three or more TV sets	50%
TV in the bedroom	36%
Computer at home	73%
Video game player	49%
Internet access at home	63%
Newspaper subscriptions at home	34%

Chart 1 In a typical day, percent of children 6-8 who...



Kaiser Family Foundation: Zero to Six (kff.org)

The Digital Landscape

- ♦ Computers Everywhere
- ♦ Internet Everywhere
- ♦ TV Everywhere
- ♦ The Visual Environment
- ♦ Smarter Content

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Computers Everywhere

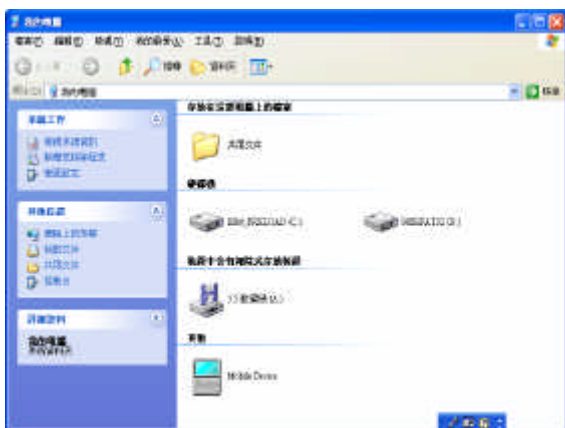
- ♦ Hot PCs cost less than \$450 PC 2.2GHz, 256MB, 80GB, DVD-R, Ethernet
- ♦ 10 million sold every month (ww)
- ♦ Widespread digital literacy



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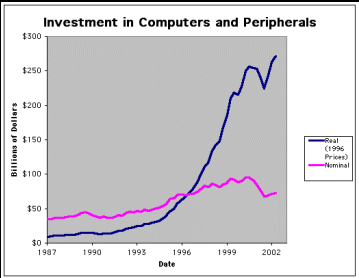
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IT Business Cycle



Source: U.S. Commerce Department Bureau of Economic Analysis
(www.j-bradford-delong.net)

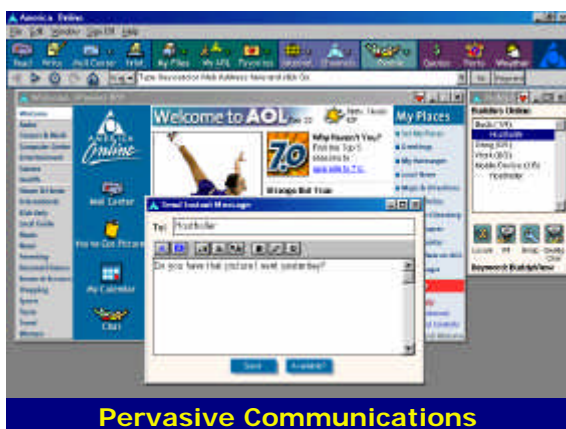
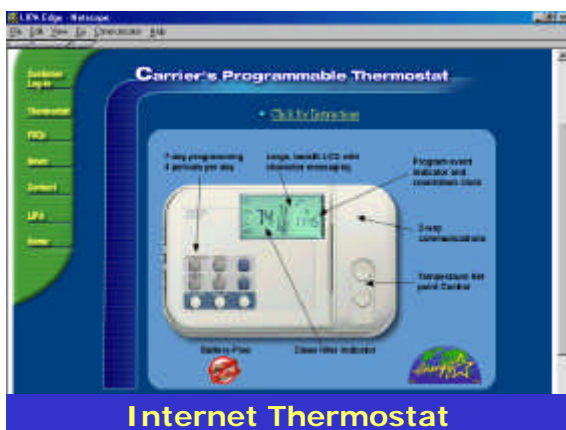
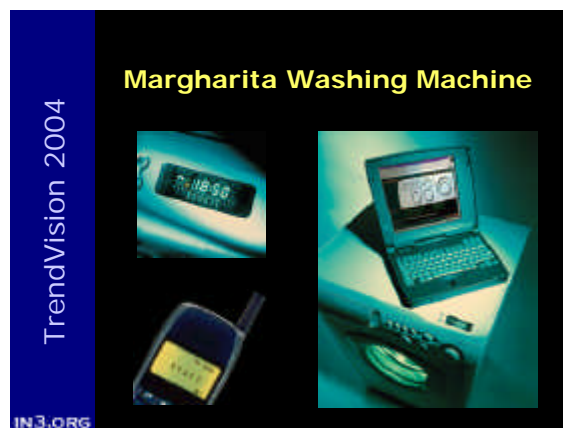
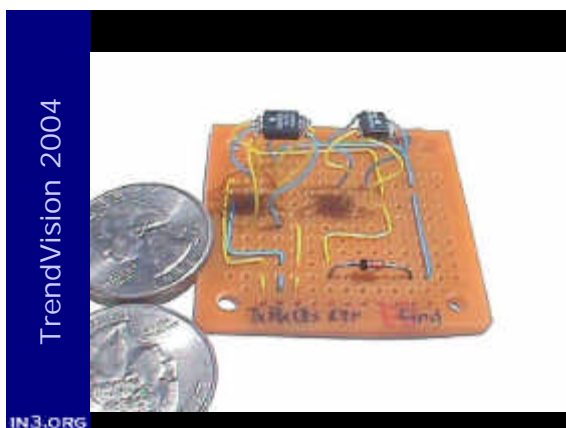
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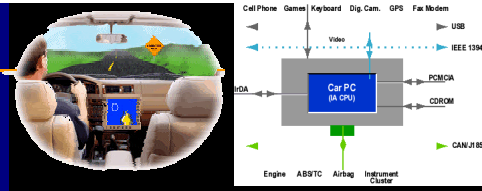
Internet Everywhere

- ♦ 413,961,746 users on-line
 - 12 hours per month
 - 42 pages viewed per session
 - 55 domains visited
 - 923 page view per month
- ♦ 15 billion emails per day
- ♦ 50 million weekly streamers (US)
- ♦ 582 million IMs per day
- ♦ 4.2 million porn sites


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The diagram shows a central 'Car PC (A-GPS)' unit. Inputs include: Cell Phone, Games, Keyboard, Dig. Cam., GPS, Fax Modem, and USB. Outputs include: Video, IEEE 1394, PCMCIA, and COM1. Other connected components are: Engine, ABS/TC, Airbag, and Instrument Cluster. A CAN/J1850 bus is also shown.



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Smart Dust




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RFID

- ♦ Radio Frequency Identification



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TV Everywhere

- ♦ 100+ Channel TV Universe
- ♦ Cable, Satellite, DVD
- ♦ Streaming Media
- ♦ Pervasive Video
 - Phones, PDAs, Cars
 - Stores, Signs, Billboards
 - ATMs, Packaging

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Flat, Light & Cheap Displays


- ♦ CRT: Cathode Ray Tube
- ♦ LCD: Liquid Crystal Display
- ♦ Plasma Display



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TV Fragmentation



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Flatter, Lighter and Cheaper Displays


- ♦ OLED: Organic Light Emitting Diode



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Flexible OLED materials




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Portable and Ubiquitous Devices

- ♦ PDAs, mobile phones, cars



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Wearable Devices


- ♦ Watches, pens, eyeglasses



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Video Walls



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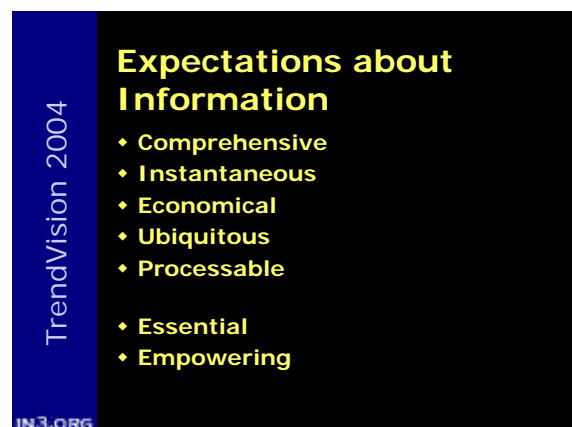
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Virtual Signs

- ♦ Video signs in stores, ATMs, malls



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Culture & Policy





Brianna LaHara
Linus Torvalds

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Information Policy

- ♦ Limited Copyright
- ♦ Fair Use



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Information Policy

- ♦ Digital Rights Management
 - Secret Police in the Machine
- ♦ Open Content
 - Free Information in a Free Society



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Managing the Revolution



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Artificial Intelligence

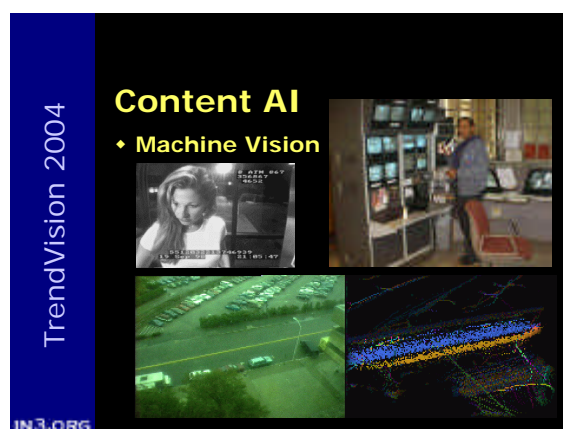
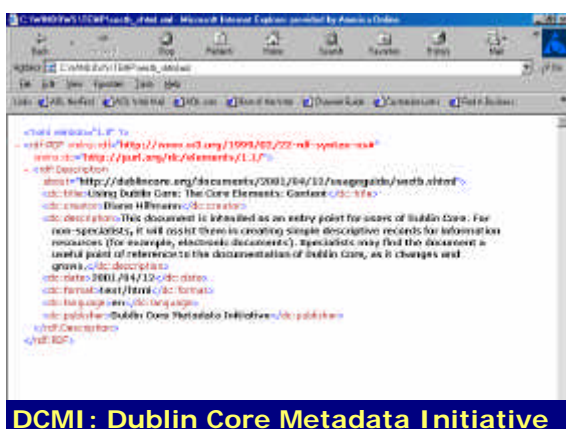
- ♦ Systems that Learn, Judge and Act
- ♦ Intelligent Agents
 - "Know" Bots
 - Shopping Bots
 - Personalization Bots

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Where We're Headed

- ♦ **Cheap, Ubiquitous Technology**
 - Immersive, Intelligent
- ♦ **Culture**
 - Faster, Connected, More Visual
- ♦ **Policy**
 - Open, Accessible, Inclusive

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Media's Future

- ♦ **Comprehensive**
- ♦ **Instantaneous**
- ♦ **Economical**
- ♦ **Ubiquitous**
- ♦ **Processable**
- ♦ **Essential**
- ♦ **Empowering**

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