PEW / INTERNET

PEW INTERNET & AMERICAN LIFE PROJECT

LIFE ONLINE

When everyone connects to everyone
and everything connects to everything

12.8.05
Lee Rainie
ECAR Meeting
Carefree, Arizona

"Oh, like you know something
the internet doesn't know."

Instant message / texting shorthand

- LOL
  - Laughing out loud
- BEG
  - Big evil grin
- BL
  - Belly laughing
- GOL
  - Giggling out loud
- SWL
  - Screaming with laughter
- BMGWL
  - Busting my gut with laughter

- ROFL
  - Rolling on the floor laughing
- ROFLLMAO
  - Rolling on the floor laughing my ass off
- ROFLSHCOON
  - Rolling on the floor shooting hot coffee out of nose
- POS
  - Parent over shoulder

Meet the Millennials (born 1982-2000)

The most diverse
generation in American history
36% of total population; 31% minority

- ✓ Special
- ✓ Sheltered
- ✓ Confident
- ✓ Team-oriented

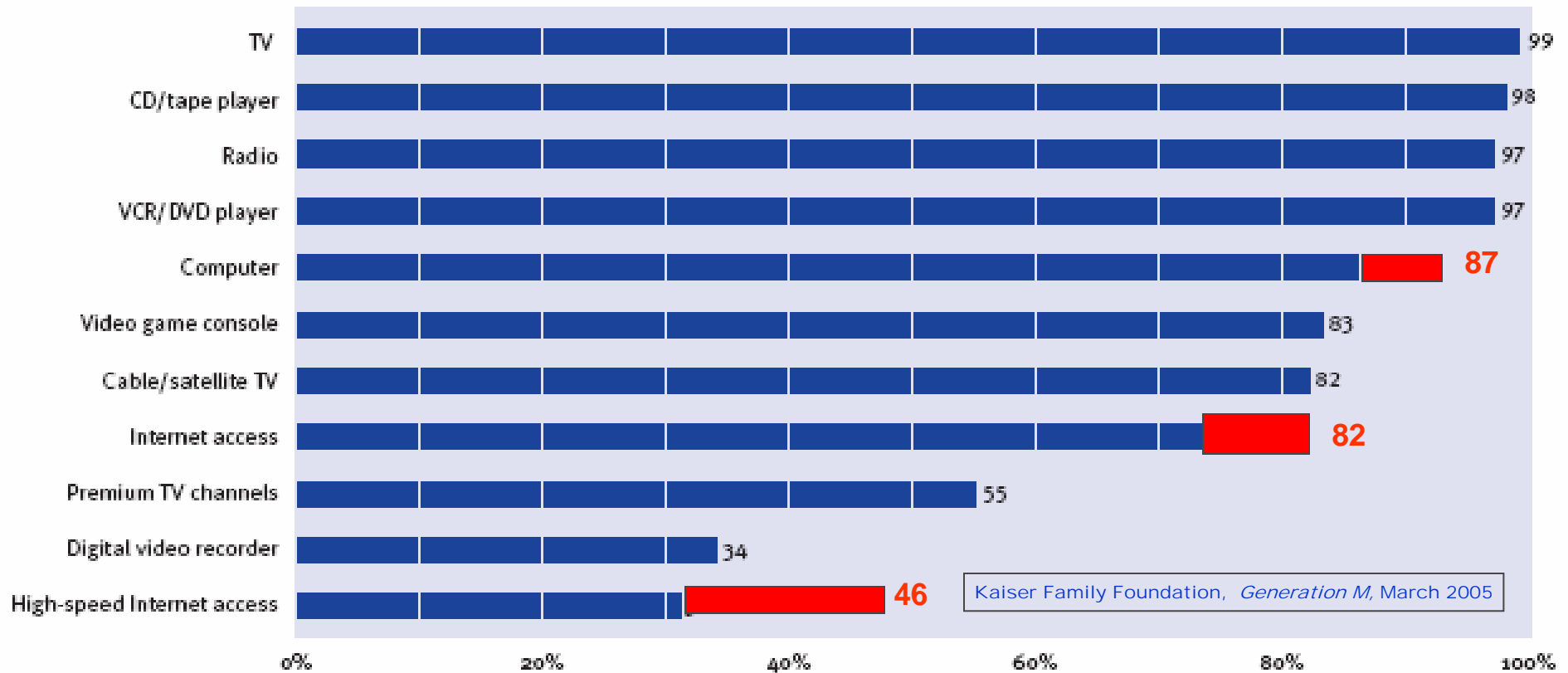- ✓ Achieving
- ✓ Pressured
- ✓ Conventional
- ✓ *Tech-savvy*

8 realities of Millennials' lives

8 implications for educators

The special tech world of teens and college students
1 – They are immersed in technology

Media in the Home

Percentage of 8- to 18-year-olds who live in homes with…

Media	Percentage
TV	99
CD/tape player	98
Radio	97
VCR/DVD player	97
Computer	**87**
Video game console	83
Cable/satellite TV	82
Internet access	**82**
Premium TV channels	55
Digital video recorder	34
High-speed Internet access	**46**

Kaiser Family Foundation, *Generation M,* **March 2005**

Home media capacity - 1975

Product   **Route to home**   **Display**   **Local storage**

TV stations   **phone**   **TV**   **Cassette/ 8-track**

broadcast TV   **radio**

broadcast radio   **stereo**   **Vinyl album**

Local news   **mail**

Advertising   **newspaper delivery**   **phone**

paper

Radio Stations   **non-electronic**
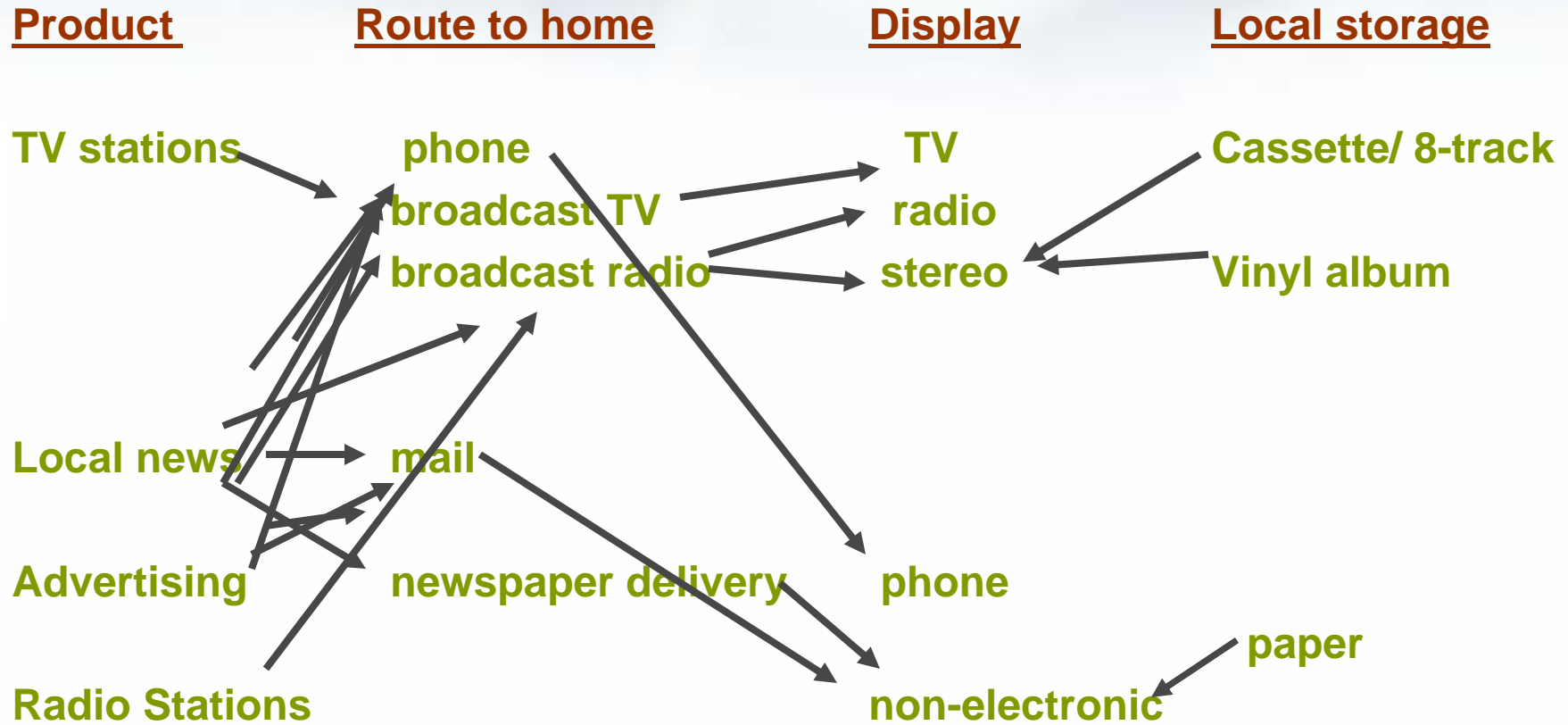
Tom Wolzein, Sanford C. Bernstein & Co

Home media capacity – now

Product	Route to home	Display	Local storage
	cable		VCR
TV stations	phone/DSL	TV	
Info	wireless	radio	DVD
"Daily me" content	broadcast TV	PC	Web-based storage
			Server/ TiVo (PVR)
Cable Nets	broadcast radio	stereo	PC
Web sites	satellite	monitor	
Local news	mail	headphones	CD/CD-ROM
Content from individuals	express delivery	pager	
	iPod / storage		MP3 player / iPod
Peer-to-peer	subcarriers / WiFi	cell phone	pagers - PDAs
Advertising	newspaper delivery	phone	cable box
Radio stations		PDA/Palm	game console
		game console	paper
Satellite radio		non-electronic	Storage sticks/disks

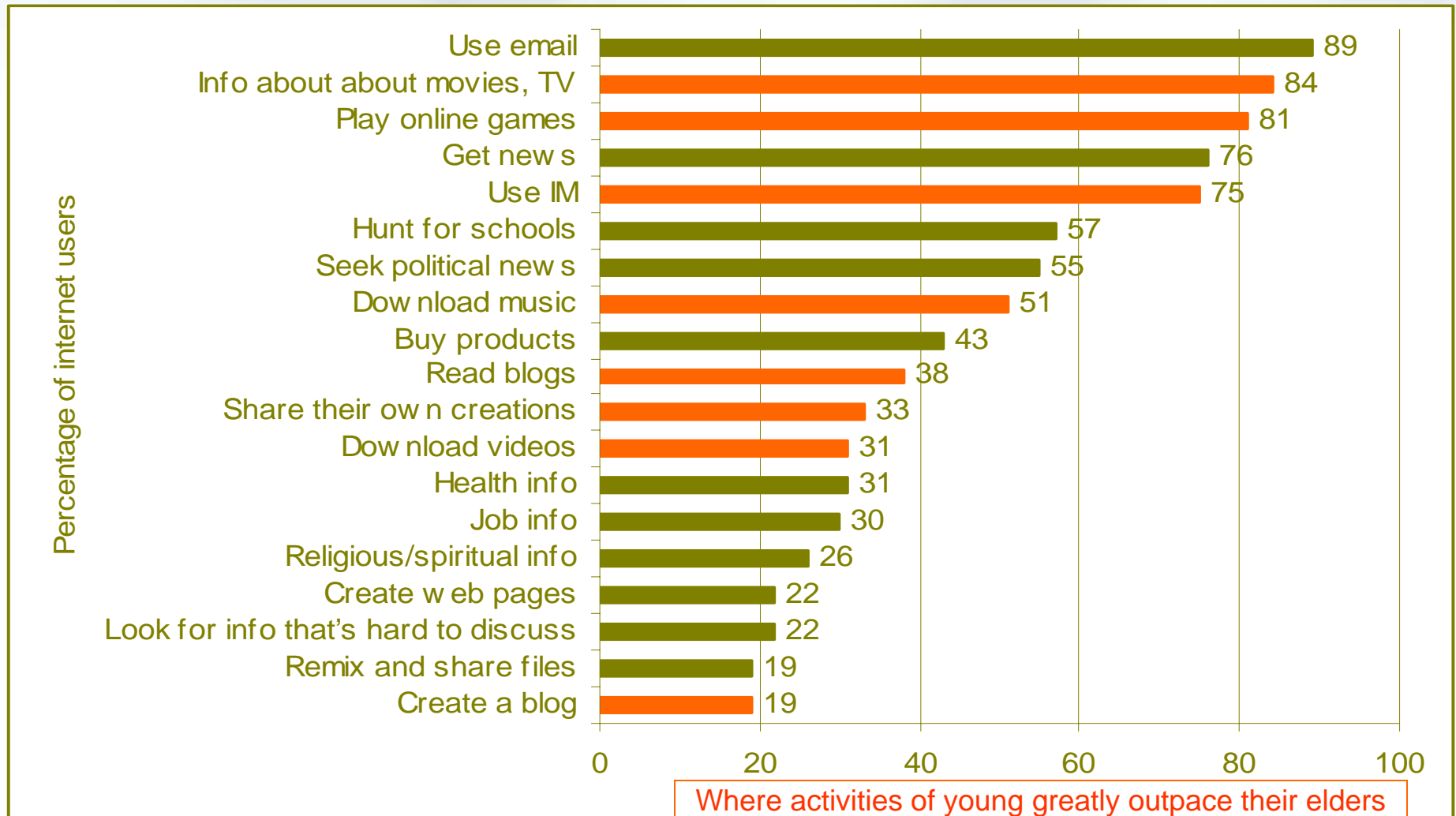Adapted from Tom Wolzein, Sanford C. Bernstein & Co

Implication 1

Teens expect to be able to gather and share information in multiple devices. They shrewdly sort out what communication and what information "belongs" on what device and under what circumstances.

"Email is for old folks."

Percentage of internet users

Activity	Percentage
Use email	89
Info about about movies, TV	84
Play online games	81
Get new s	76
Use IM	75
Hunt for schools	57
Seek political new s	55
Dow nload music	51
Buy products	43
Read blogs	38
Share their ow n creations	33
Dow nload videos	31
Health info	31
Job info	30
Religious/spiritual info	26
Create w eb pages	22
Look for info that's hard to discuss	22
Remix and share files	19
Create a blog	19

0   20   40   60   80   100

Where activities of young greatly outpace their elders

Implication 2.1 – General context

They are the first generation to have grown up with interactive media. They want to manipulate, remix, and share content. They also expect to be able to be in conversation with other creators. And their conversations never end in the "always on" world. They hope they can get help from peers and teachers whenever they need it.

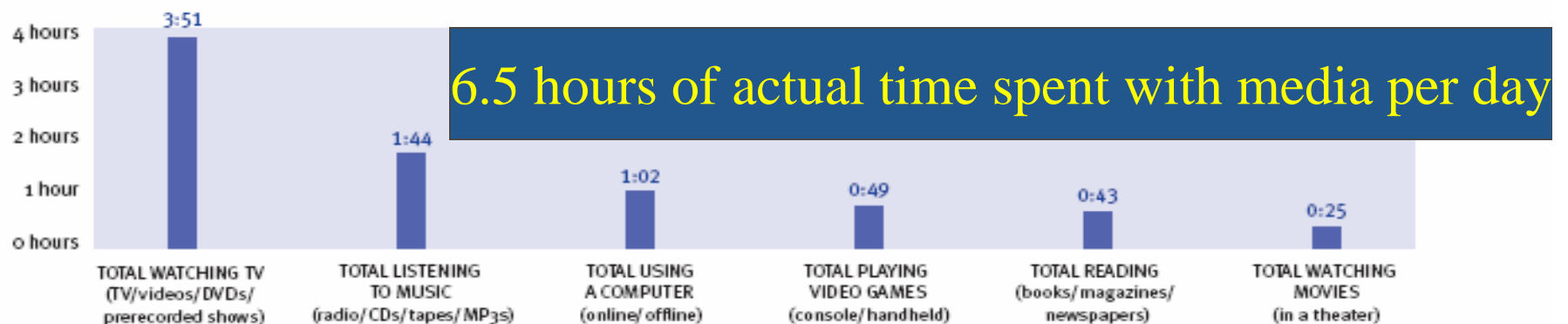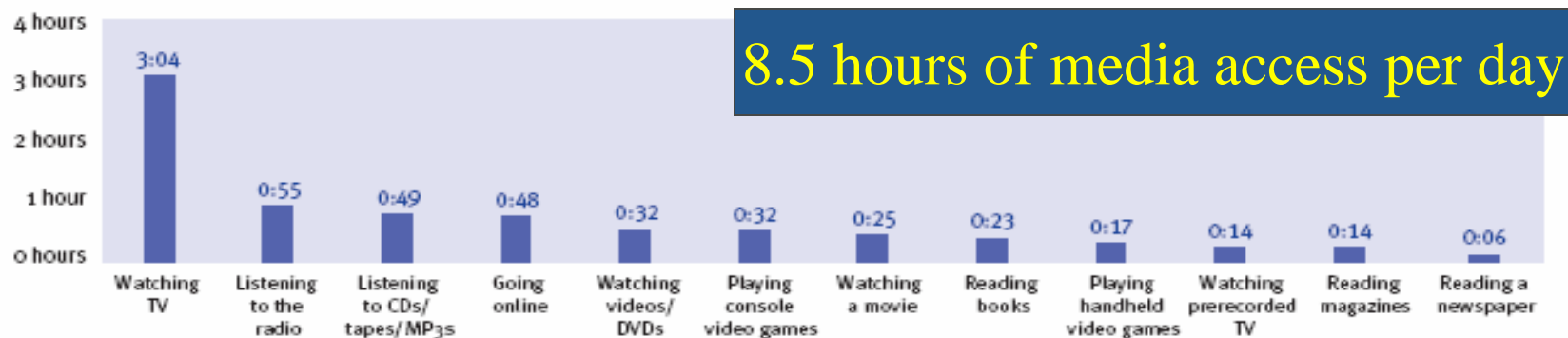# Implication 2.2 – Learning contexts

Students see the internet as a
1) virtual textbook and reference library
2) virtual tutor and study shortcut
3) virtual study group
4) virtual guidance counselor
5) virtual locker, backpack and notebook
6) trusted, smart friend

The special tech world of teens and college students
3 – They are multi-taskers

Time Spent With Media

Average amount of time 8- to 18-year-olds spend per day...

8.5 hours of media access per day

Watching TV: 3:04
Listening to the radio: 0:55
Listening to CDs/tapes/MP3s: 0:49
Going online: 0:48
Watching videos/DVDs: 0:32
Playing console video games: 0:32
Watching a movie: 0:25
Reading books: 0:23
Playing handheld video games: 0:17
Watching prerecorded TV: 0:14
Reading magazines: 0:14
Reading a newspaper: 0:06

6.5 hours of actual time spent with media per day

TOTAL WATCHING TV (TV/videos/DVDs/prerecorded shows): 3:51
TOTAL LISTENING TO MUSIC (radio/CDs/tapes/MP3s): 1:44
TOTAL USING A COMPUTER (online/offline): 1:02
TOTAL PLAYING VIDEO GAMES (console/handheld): 0:49
TOTAL READING (books/magazines/newspapers): 0:43
TOTAL WATCHING MOVIES (in a theater): 0:25

Note: Due to overlapping media use, these figures cannot be summed. Average times are among all young people, not just those who used a particular medium that day.

Kaiser Family Foundation, *Generation M,* March 2005

Multitasking and attention deficits:
What else were you doing when you last…

	Watched TV	Listened to radio	Read a newspaper	Used the internet	Talked on the phone
Watched TV	*	9%	38%	17%	54%
Listened to radio	13	*	21	16	30
Read a newspaper	43	21	*	2	14
Used the internet	20	17	2	*	19
Talked on the phone	57	25	14	18	*

Source: Forrester Research, 2004

Implication 3

They live in a state of
"continuous partial attention"

"Continuous partial attention is not the same as multitasking; that's about trying to accomplish several things at once. With continuous partial attention, we're scanning incoming alerts for the one best thing to seize upon: 'How can I tune in in a way that helps me sync up with the most interesting or important opportunity?'"

--- Linda Stone

http://www.smartmobs.com/archive/2003/01/03/multitasking_be.html

The special tech world of teens and college students
4 – Their technology is mobile

Portable Media Ownership

Percentage of 8- to 18-year-olds who have their own...

Device	Percentage
Discman or Walkman	61
Handheld video game player	55
Cell phone	45
MP3 player	37
Handheld Internet device	13
Laptop computer	26
Personal digital assistant	11
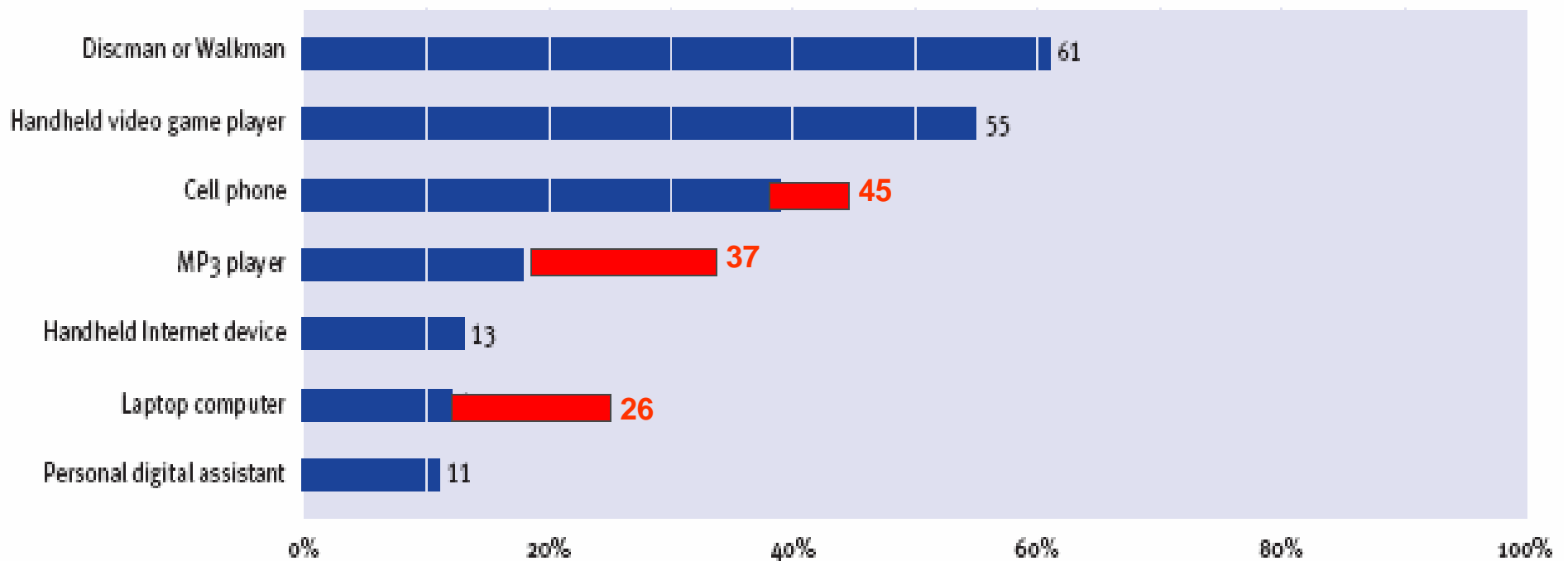
Kaiser Family Foundation, *Generation M,* March 2005

Implication 4

Teens are constantly interacting and forming "smart mobs." And "presence" is a concept that is less physical and more virtual to them. This is causing all kinds of social strains as the boundaries break down between public and private; work, school, and home; and consumer and producer.
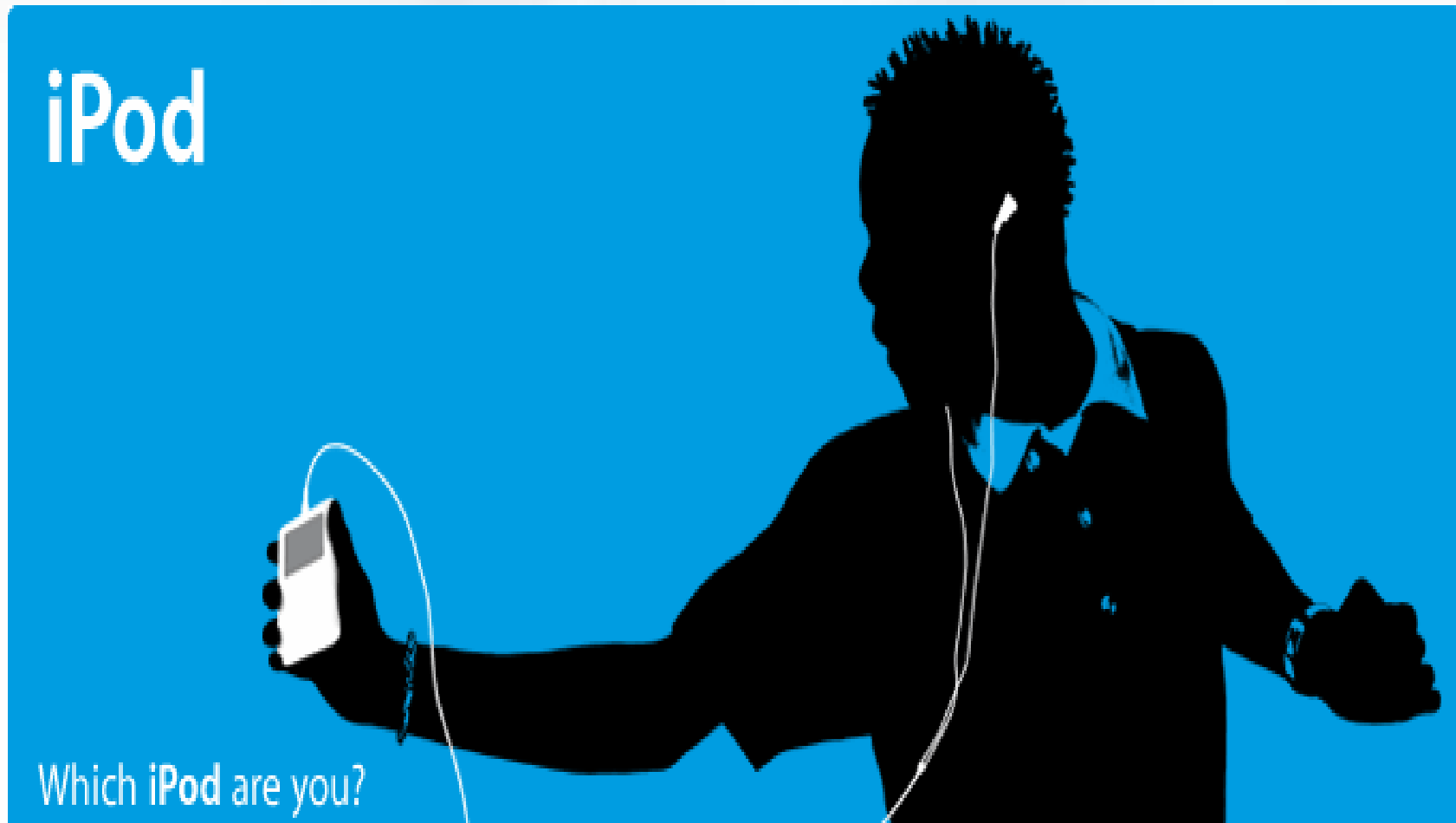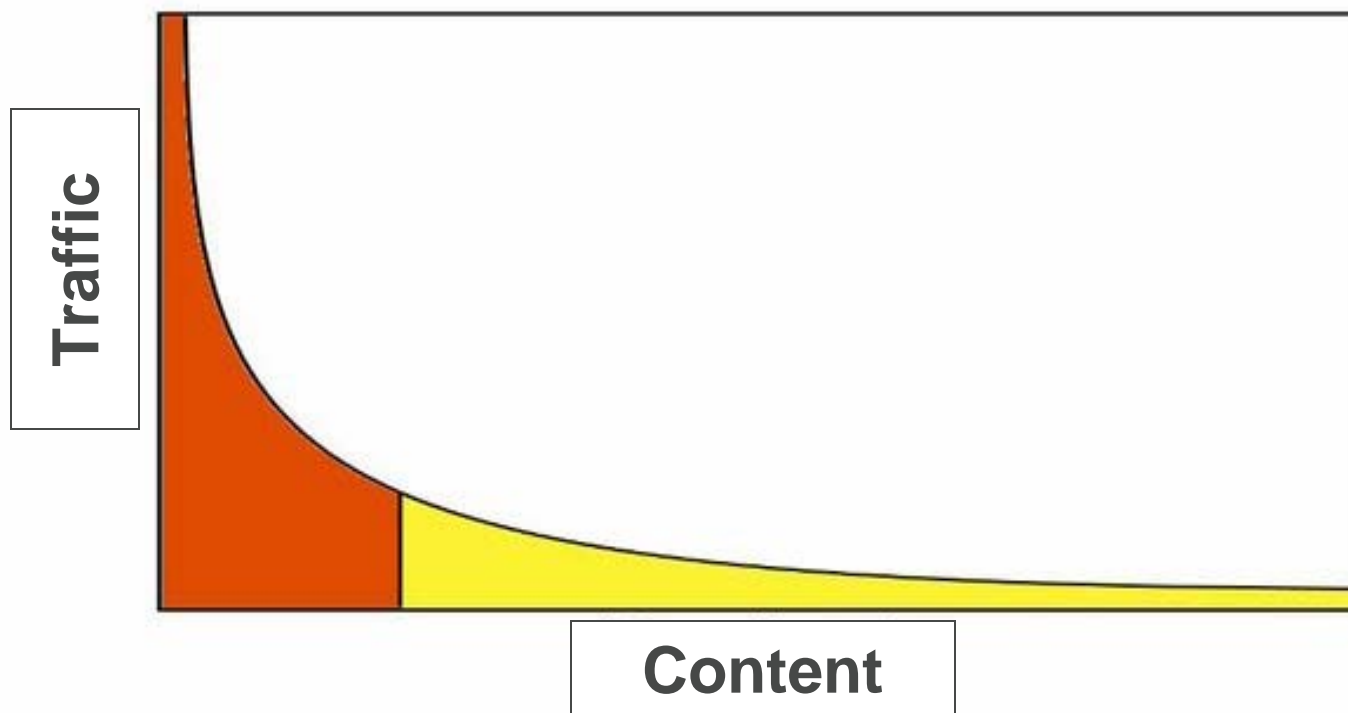
Implication 5

Use of technology for time shifting will be commonplace. The importance of "appointment media" will fade and the value of ever-better search strategies will elevate. "Long tail" content will matter more.

PEW/INTERNET

Amazon, Rhapsody/iTunes, Netflix

Traffic vs. Content (long tail curve)

The special tech world of teens and college students
6 – They are often unaware of the implications of tech use

- 51% download music files

- 31% download video

- 19% take material and remix and share it

- 75% agree: "Music downloading and file-sharing is so easy to do, it's unrealistic to expect people not to do it "

- 66% agree: "As long as people are still buying music and movies, it's okay if they download or share some things for free."

- 55% say they do not care much wither what they download is copyrighted or not

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- They are often uncaring about their own privacy and they enjoy "soft surveillance" of others

Implication 6

It would be good to model "media literacy" for them and use encounters with them as gentle teaching moments.

The special tech world of teens and college students
7 – Different teens use technology differently

- Boys and girls
- Young and old
- Broadband and dialup
- Home and non-home access
- Wired parents and unwired parents

The subjects teens talk about most with their friends

Topic	Total	Male	Female
Boyfriend/girlfriend	38%	32%	44%
Other friends	36%	33%	39%
Life in general	35%	32%	39%
Someone to date	35%	32%	38%
Music	30%	34%	25%
Sex	27%	32%	22%
Gossip	26%	14%	39%
The future	25%	24%	26%
Next weekend	25%	24%	26%
Last weekend	23%	23%	24%
Movies/TV shows	21%	26%	16%
Sports	21%	33%	8%
Secret things	20%	15%	26%
Current events	19%	22%	16%
School / grades	18%	16%	20%
Jobs	16%	18%	13%
Deep feelings	15%	9%	23%
College	12%	11%	13%
Fashion	12%	7%	18%
Video games/computers	11%	20%	1%
Parents	9%	5%	13%
Celebrities	7%	5%	13%
Vacations	6%	7%	6%
Brother / sister	4%	3%	6%
Eating habits	2%	1%	3%

The special tech world of teens and college students 8 – Their technology world will change radically in the next decade

- <u>Computing power</u> doubles every 18 months – Moore's law

- <u>Communications power</u> doubles every 9 months with improvements in fiber optics and compression – Gilder's law

  – <u>Spectrum power</u> is enhanced with efficiency improvements in spectrum allocation and use

- <u>Storage power</u> doubles every 12 months – disk law

The unfolding trends

1. More smart gadgets and dumb appliances will plug into the internet – the "environment" will have more intelligence

2. More mobility will be built into the system -- more "smart mobs" will be enabled

3. Content creation will explode – "my media" will catch up to "mass media"

4. Search will get better and more contextual and social

5. The pressures on the internet to break into layers will intensify

Implication 8 – There are no Jedi masters for educators to consult in this new world

Ghost of technology past - 1

"I believe that the <u>motion picture</u> is destined to revolutionize our educational system and that in a few years it will supplant largely, if not entirely, the use of textbooks."

-- Thomas Edison, 1922

Ghost of technology past - 2

"The central and dominant aim of education by <u>radio</u> is to bring the world to the classroom, to make universally available the services of the finest teachers, the inspiration of the greatest leaders . . . and unfolding world events which through the radio may come as a vibrant and challenging textbook of the air."

-- Benjamin Darrow, 1932
"Radio: The Assistant Teacher"

Ghost of technology past - 3

"The <u>well-planned television program</u> can motivate students, guide and sharpen their reading by providing background and demonstrations, encourage responsibility for independent learning, arouse curiosity and develop new insights and the excitement of discovery. A school where these new devices are in use may find itself bursting out of old patterns."
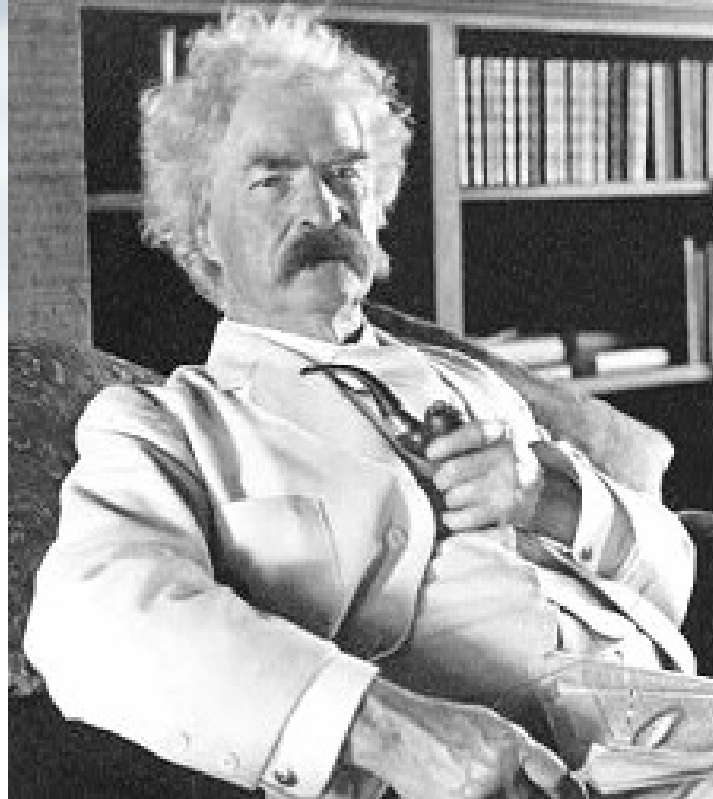
-- Lester Asheim, 1962

"Educational Television: The Next 10 Years"

Ghost of technology past - 4

"There won't be schools in the future…. I think the personal computer will blow up the school. That is, the school as something where there are classes, teachers running exams, people structured in groups by age, follow a curriculum – all of that."

-- Seymour Papert, 1984

"The art of prophecy is very difficult — especially with respect to the future."

- Mark Twain