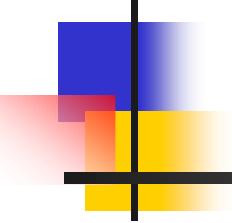


Enhancing your Virtual Presence? A User's Perspective



Ole Jacobsen
The Internet Protocol Journal
Cisco Systems
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Good time to take the pulse

- The hype has faded
- Economic slowdown
- Dot-com fever is gone
- What's the state of the Internet?



Most major inventions lead to industry segments/classifications

- Look in the “Yellow Pages”:

- Automotive
- Electrical
- Radio
- Photography
- Telephone





And even...

- Pizza





Criteria for an industry segment

- Economic impact
- Availability
- Value added chain
- Maturity
- Stability and predictability
- Other criteria?



So...

- **Q.** Is the Internet an industry segment ?





Well...

- **A.** It depends on how you look at it!





Perspective: The Poor User

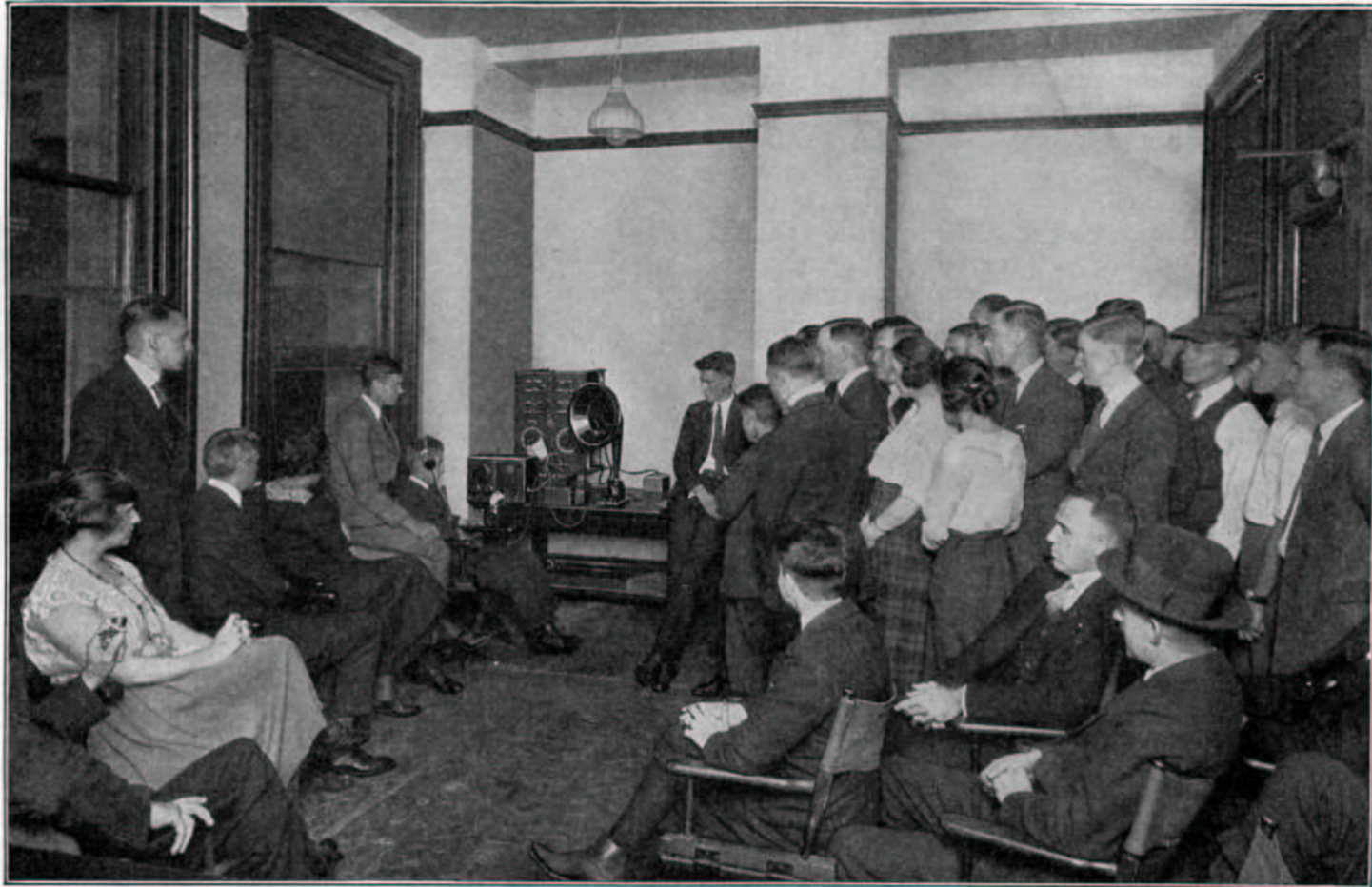
- What is the genealogy of the Internet?
- What is the Internet “experience” like?
- What’s missing, and what’s broken?
- What Internet technologies have changed the way we work, learn, play, and communicate?
- What’s in the future?

Lessons from the past

- 1920s: Radio Enters The Home
- Not easy to use, vision different from eventual reality



The vision...

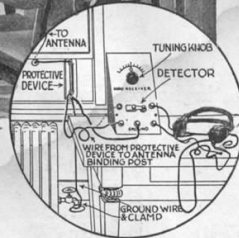
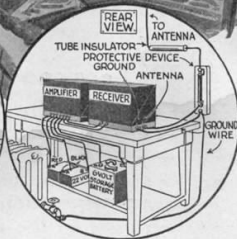
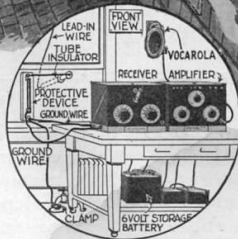
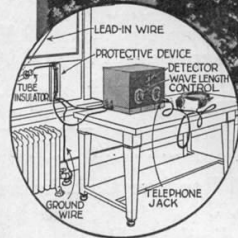
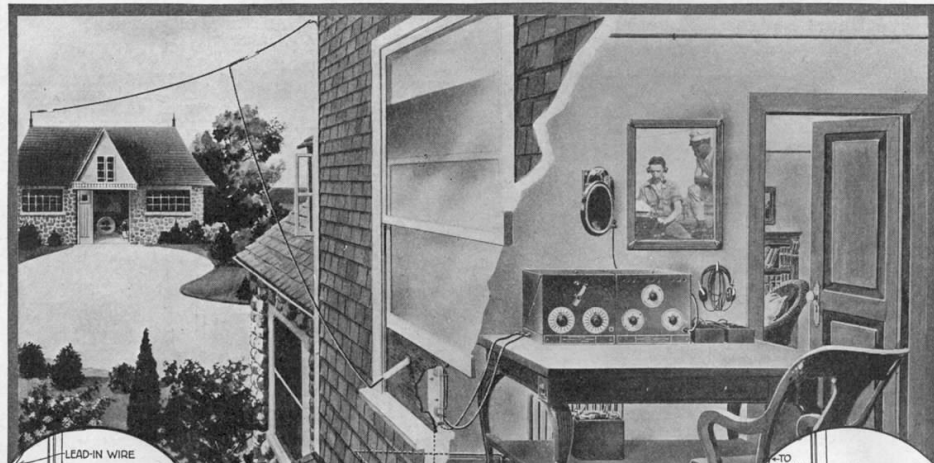


The Radio Concert becomes a reality by the use of a combination receiver-amplifier unit in conjunction with a loud speaker.

The complexity...

RADIO CORPORATION OF AMERICA

COMPLETE RADIO TELEPHONE RECEIVER SETS



Illustrating the general set up of receiver combinations. The extreme left hand cut show GE Receiver AR-1300 as a crystal receiver, the next cut shows GE Receiver AR-1300 in combination with Amplifier AA-1400, the next cut shows the method of battery connection when using these two units. The extreme right hand cut shows GE Crystal Receiver AR-753 in operating position.

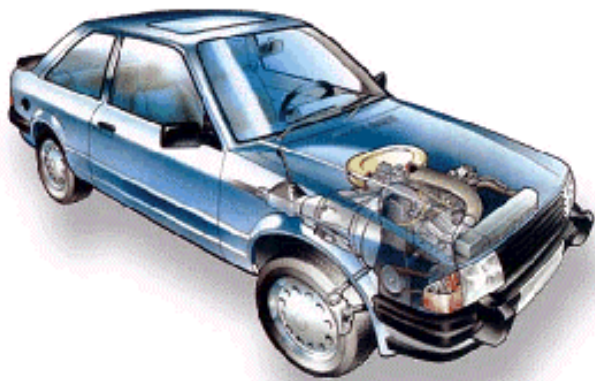
RECOMMENDED RECEIVER COMBINATIONS

But a solution was found...



Lessons from recent history

- Internet books/guides are largely about technical matters
 - Analogy: Car technical manual versus tour guide/maps



Radios and Cars just work

- We don't normally worry about the technical details
- We can focus on **WHAT** to do with these devices

WFSS Program Schedule

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	
5 am		BBC WORLD SERVICE						5 am
6 am	Contemporary Gospel						Jazz	6 am
7 am	with				Local host Kathy Klaus		PrimeTime LIVE!	7 am
8 am	Archie Jones, Jr. and Stevie Corpebant						PrimeTime LIVE!	8 am
9 am		Lewis SMILEY	Lewis SMILEY	Lewis SMILEY	Lewis SMILEY	Lewis SMILEY	PrimeTime LIVE!	9 am
10 am	Making Contact	Special's Voice	51%	51%	51%	51%	Car Talk	10 am
11 am	Jazz	Jazz					Handbite Today!	11 am
12 pm	Jazz In The City	Jazz	Jazz	Jazz	Jazz	Jazz	A Chef's Table	12 pm
1 pm	Jazz	Jazz					Reggae Roots	1 pm
2 pm	La Hora Latina						with	2 pm
3 pm	with						The Reggae Room	3 pm
4 pm	José Martínez						Cow	4 pm
5 pm	ALL THINGS CONSIDERED	ALL THINGS CONSIDERED					ALL THINGS CONSIDERED	5 pm
6 pm	Original Down Home Blues	MARKETPLACE					AR	6 pm
7 pm	Latin MacKinnon & Randy Steffens	Classical Sampler	Native Voices	The Bluesgrass Show	African Rhythms	Free Flight	JazzSet	7 pm
8 pm	with	with	with	with	with	with	JazzSet	8 pm
9 pm	POWER	with	with	with	with	with	JazzSet	9 pm
10 pm		The Cabaret					Jazz In The City	10 pm
11 pm	Golden Jubilee	with JayCee					Saturday Night	11 pm
12 am		(Search Jazz & Novels)					Jazz	12 am

NPR News Update of 1 minute after the hour every weekday

Marketplace Report 5:48 am & 7:40 am
 NatureWatch 10:00 am
 Pulse of the Planet 11:16 am
 Travelers Journal 12:00 pm



Our Ocean World 1:00 pm
 Earth and Sky 2:00 pm
 91.9 Arts Connection 6:00 & 6:00 am, 4:30 pm

Jan 20 2011

We really want:





The Internet experience: The winners so far:

- E-mail
 - It has really has changed our lives
- The Web
 - It has changed our lives too :-)



E-mail

- For private communication and for business use
- Most importantly:
customer <—> business interactions



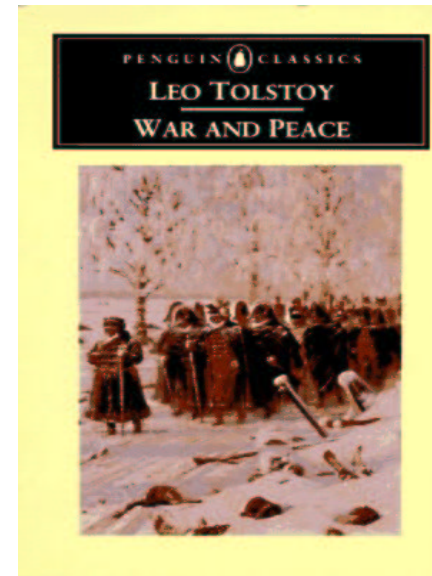


What about the Web?

- As a disorganized library it's really quite good!
- Finding stuff isn't easy, but not exactly impossible
- As a reliable tool, I am less certain
- Compare: calling a telephone number

The Web as a business tool ?

- Many success stories
 - Example: Pornography
 - Example: Amazon.com
 - Example: Cisco Systems



What's missing?

?

- Some dreams are only dreams:
 - Video on-demand over the Internet
 - Smart programs that work for you while you sleep
 - Good video conferencing via the Internet
 - Electronic cash
 - Useable searches





What's missing?



?

- Cheap broadband everywhere
- Or: new expectations (text only?)
- Seamless global wireless solutions
- Better devices with longer battery life
- Computer-less Internetworking
- Business models to support all this



What's broken?



- A "Good Idea" is not necessarily a good Business Model
 - Many "dot-com" failures as a result
 - Online shopping is great for some products, terrible for others.
 - Shopping is an experience you can't easily replace with a computer
 - Still many issues of "trust" to resolve



What's broken?



- My "least favorite" list (1)
 - Spam
 - HTML and browsers in general
 - What does "back" do?
 - "404 - Document Not Found:
The web page you requested could not be found"



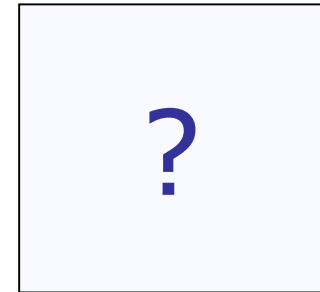
What's broken?



- My "least favorite" list (2)
 - Content/Bandwidth mismatch
 - Why do I have to be a network/computer expert, when I all want to do is USE this stuff?

What's missing & what's broken?

- What's on your list?
 - Click to add text
 - Click to add text
 - ...and so on



So, is the Internet an Industry Segment?

- From the user's perspective: perhaps not
- But that's only one way to look at it
- We are only at the beginning, I hope



What's next?

- Technology trends
 - My predictions
 - My observations
 - My suggestions
-
- And your suggestions!



Technology Trends

- Hardware is (still) getting better/cheaper
- Communication costs are generally getting lower
- Software, well I live in hope...
- Open Source is generally a Good Thing





Cable Price Movements [Huston]

Capacity between Tokyo and the US West Coast

Example Capacity Prices

Year	Data Rate	Monthly Lease	IRU / Capital Lease	Unit Price
1997	E1	\$ 54,000	n.a.	\$ 27,000
1998	DS3	\$ 540,000	n.a.	\$ 12,000
1999	DS3	\$ 320,000	n.a.	\$ 7,111
2000	OC3	\$ 200,000	\$ 8,000,000	\$ 1,290

\$ / Mbps / Month



Communication trends

- Interface options continue to expand
 - iMode
 - Palm
 - Blackberry
 - Internet in your pocket?





Easy predictions...

- The Internet is changing everything
- New/better technologies will arrive
- Wireless devices will get much better
- Batteries will last for weeks
- IPv6 is coming
- We have a lot of work ahead of us!



Full
Charge



Low or
Empty

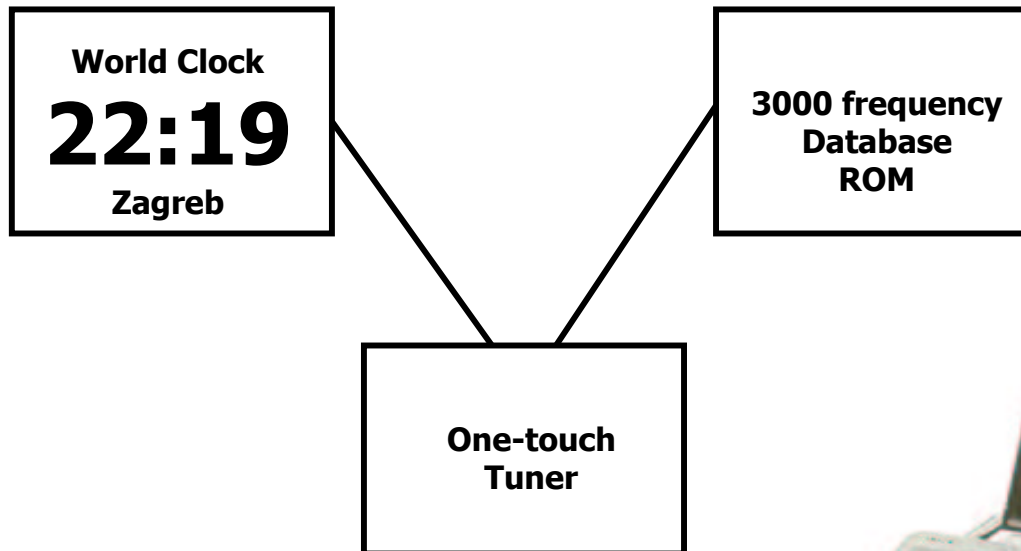
Harder predictions...

- Revolutionary innovations ?
- Combining technologies ?
- Example: a “smart radio”
- Example: TV + smartcard in hotel room = Internet?





A "smart" radio



A "smart" hotel room setup ?



Could I see my home desktop?

The screenshot displays a classic Mac OS 9 desktop environment. On the left, a 'Finder' window titled 'Ole's Cube' shows a grid of folders and files, including 'System Folder', 'Applications (Mac OS 9)', 'Office98', 'QuickCam', 'Pictures', 'Documents', and various software utilities. The desktop background features a calendar for November 2002, which includes flight schedules and personal events such as 'Payday', 'Train back to Kobe', and 'IIC Conference Zagreb'. On the right side, an AOL Instant Messenger window is open, displaying a 'Buddy List' with 6/29 buddies, including 'olecnx', 'perryrrep', and 'WarlordMIT'. The system status bar at the bottom shows the date as Wednesday, November 13, 2002, and the time as 17:52. Network status indicators for various cities like Denver, Chicago, Boston, London, and Tokyo are also visible.

And the politics?

- The more important a technology becomes, the greater the power game surrounding it.
- In the Good Old Days we trusted one man to make the right choices.



Jon Postel (1943–1998)

ICANN: an experiment in self-regulation

- Will it succeed or be subject to government regulation?





Who you can do

- Create and innovate
- Network with your peers
- Get involved in:
 - ICANN
 - IETF
 - CEEnet
 - And so on...



Because...

- It is your Internet
- Change is possible
- It's just taking off
- It's going to be a lot of fun!





Thank you!

- ole@cisco.com
- www.cisco.com/ipj

