Will There Be an Internet in the Year 2000?

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What is the Internet?

- Separately identifiable data network
- Hype topic
- Wall Street crack
- Security worry
- Reliability worry

What is the Internet Not?

- Free good
- Run by volunteers
- Islands
- Respecting of national borders
- Making money

Killer App

- Too many are still looking for "killer app"
- What was killer app for telephone?
- What was the killer app for car?
- If you need one, killer app is connectivity

The Business of Fun

- Can you fund the 'Net with "fun"?
  - Video on demand, video games?
- With current technology - no
  - All of current non-production entertainment revenue would not support network infrastructure

The Fun of Business

- A bit easier to support network infrastructure with commerce
- A few trillion $ of annual business is net-compatible
  - e.g., Wallmart
- A small tithe is still a lot of money

Post WWW

- The web filled a hole we did not know we had
- Lowered the entry requirements to use the web
  - Mom can surf
- All too-ubiquitous client
  - the world is not all nails
- What additional holes are there?

Future Applications

- Prediction, we only know a few of the applications that will be important in 2000
  - email
  - www
  - ftp
  - remote access (diminishing)
  - buy button
- How these will rate in top 10 apps is unclear

Will the Structure Hold?

- Traffic (both bits & routing info) stressing current equipment
  - when following current protocols
- Don't know what will be on the ends of the glass in a year
- Can't see the shape of what will be needed in 2000
- Business advantage to those who figure it out

What Makes Voice & Video Special?

- Broadcast - not much
  - semi-reliable data to site within a few seconds
  - memory is cheap
- Interactive - much
  - QoS (as in latency & latency variance) important
  - new technology required
  - prediction - ATM will not help much

Global Reach

- The 'Net is aggressively non-national
- Problem with "porn"
- Problem for governmental control of information
  - "protecting" citizens
- Social disruption

Shifting Viewpoints 1

- Original Internet
  - lots of little boxes
  - dumb net, intelligent edges
- Telco net
  - fewer big boxes
  - dumb edges, intelligent net
- Prediction - combination

Shifting Viewpoints 2

- move from

  data as a special case of voice
  to
  voice as a special case of data

- what other special cases?

Conclusion

There will be no Internet soon after the
year 2000 because there will
just be an undifferentiated
data infrastructure

Threat vs. Promise

- This data net will be both threat and promise
  - just like the telephone

- It will succeed in being both