

Voice and video, content and connectivity: Ancient myths and current reality

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Current reality:

- **Broadband wireline Internet**

VS

Narrowband mobile voice

- 2x users
- >2x revenues

- **Lessons for the future:**

#1 don't neglect voice

#2 don't neglect voice

#3 don't neglect voice

Human communication:

One picture is worth a thousand words

Human communication:

One picture is worth a thousand words,
provided one uses another thousand
words to justify the picture.

Harold Stark, 1970

Voice and video:

- Relative unimportance of video for human communication:
 - see a variety of papers in human-computer interface areas (for example those of Angela Sasse)
 - or consider market experiences of videophone trials

- On the other hand:

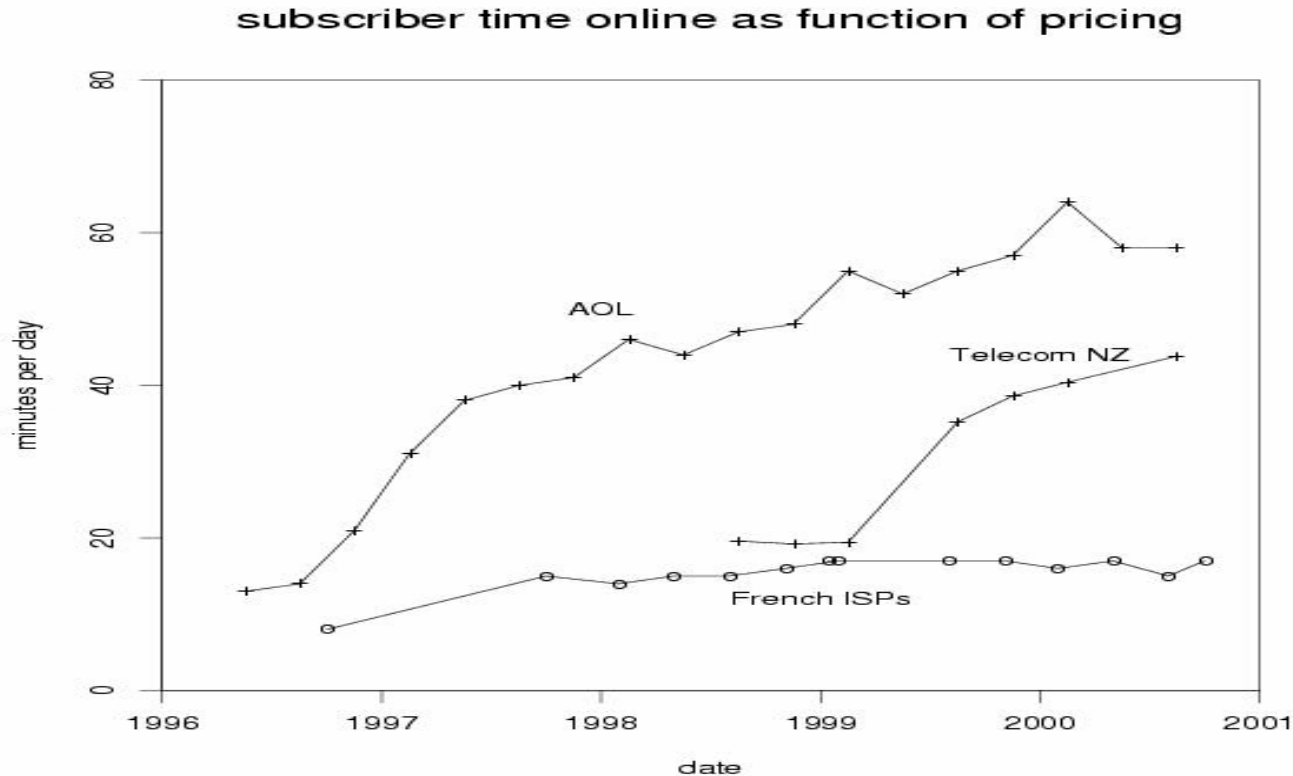
Wideband speech will be the major differentiation and attraction of third-generation network services in both the circuit and packet switched domain. Increased audio bandwidth introduces a significant leap in perceived quality of service compared to currently utilized narrowband telephony in second-generation mobile communications and the PSTN.

IEEE Communications Magazine, May 2006 special issue on "Wideband speech coding standards and wireless services"

Opportunities in voice:

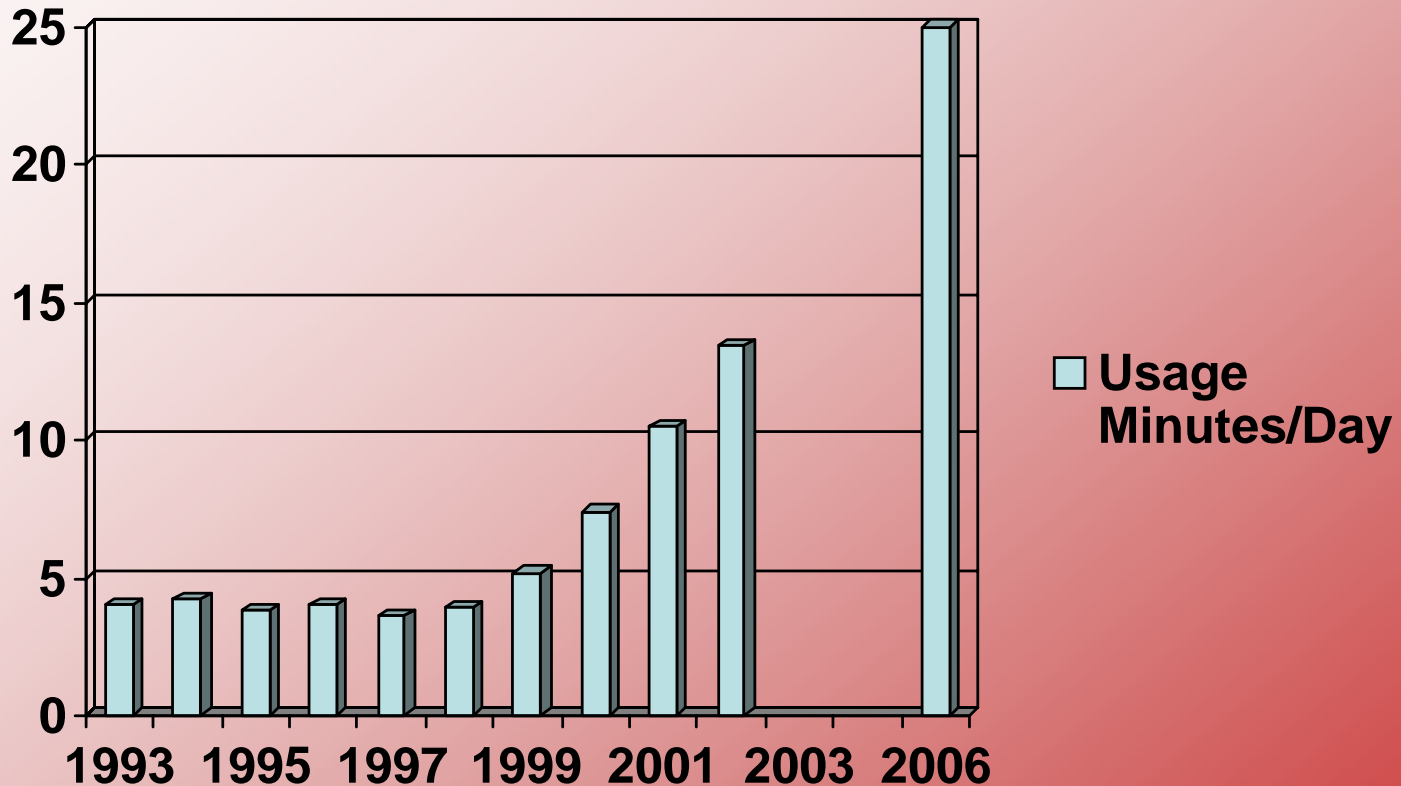
- Higher quality
- Differential quality
- Toll-free calling
- ...

Flat rates as a way to stimulate usage:



Almost Flat rates :

U.S. cell phone usage, minutes per day around June of each year.



Overwhelming need for flexibility in technology and business plans:

The goals of the advertising business model do not always correspond to providing quality search to users. ... we expect that advertising funded search engines will be inherently biased towards the advertisers and away from the needs of the consumers. ... But we believe the issue of advertising causes enough mixed incentives that it is crucial to have a competitive search engine that is transparent and in the academic realm.

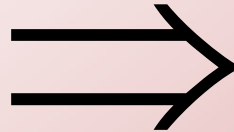
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- Sergey Brin and Larry Page, 1998

Content is not king:

- Google: a few hundred million Euros



100 billion Euros

- 3G auctions in 2000: 100 billion Euros



a small fraction

Further data, discussions, and
speculations in papers and
presentation decks at:

<http://www.dtc.umn.edu/~odlyzko>