

The Internet (r)evolution

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The Internet (r)evolution

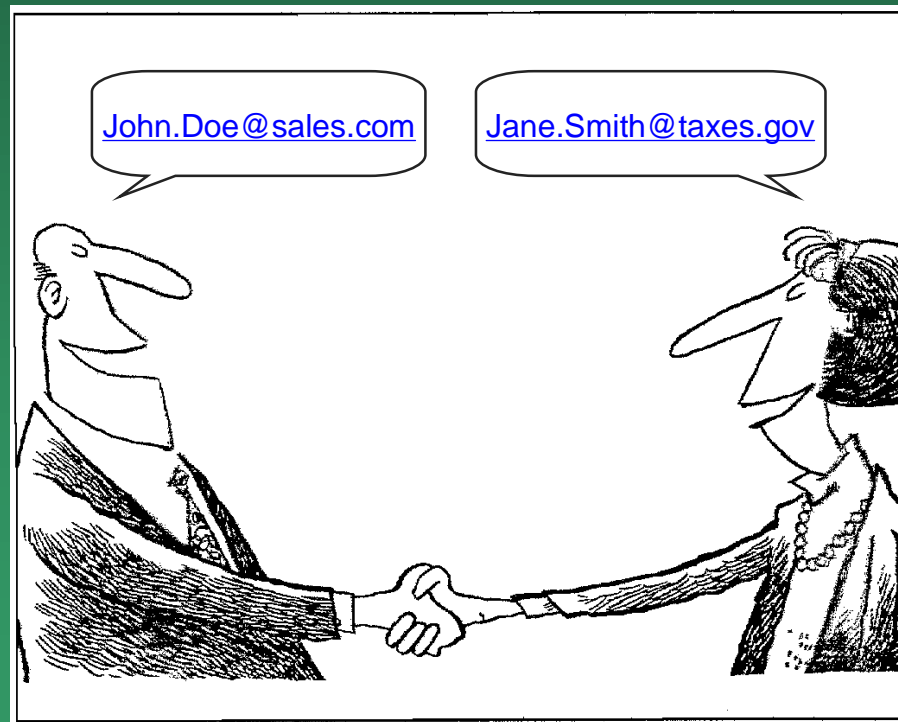
- n The Internet hype
- n The Internet reality
 - Internet growth
 - who is on the Internet?
- n The World-Wide Web
 - the Internet killer application
 - what is the Web being used for?
- n The future of the Internet
 - the Internet = the Web
 - the challenges for the Internet



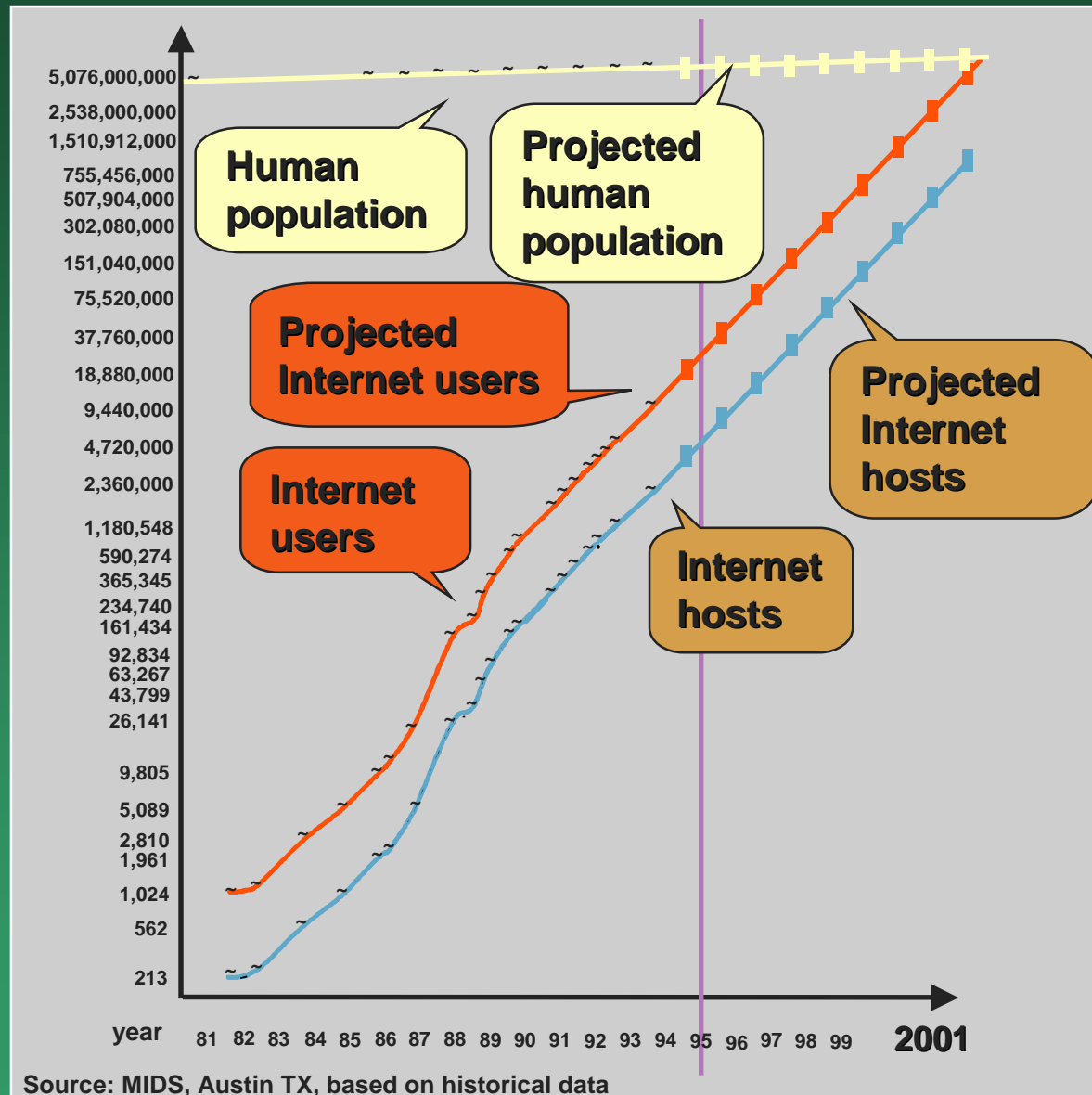
The Internet hype

- n the Information Superhighway / the I-way / the Infobahn
- n “If you’re not an active Net citizen by the mid 1990s, you’re likely to be out of business by the year 2000.”

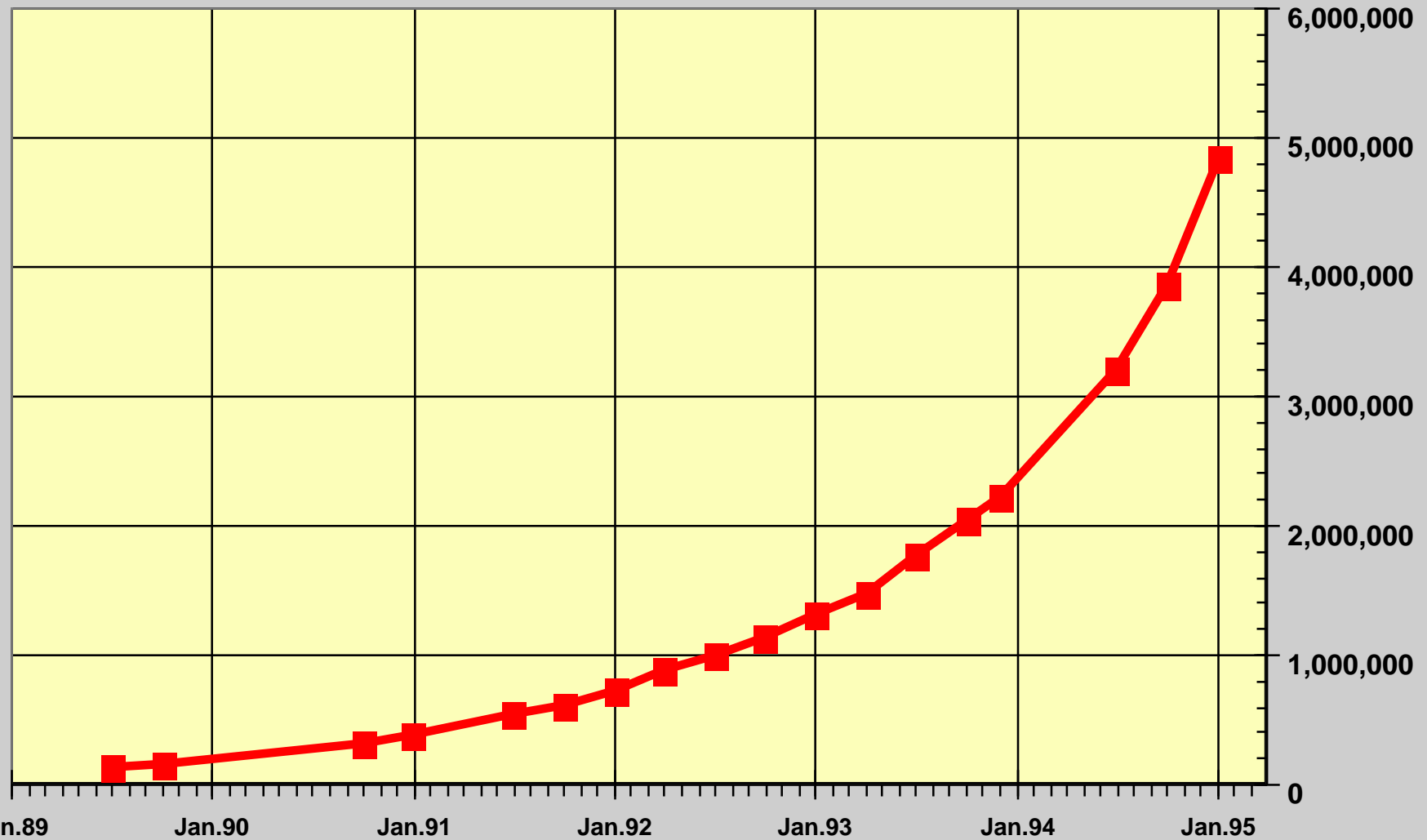
Patricia Seybold



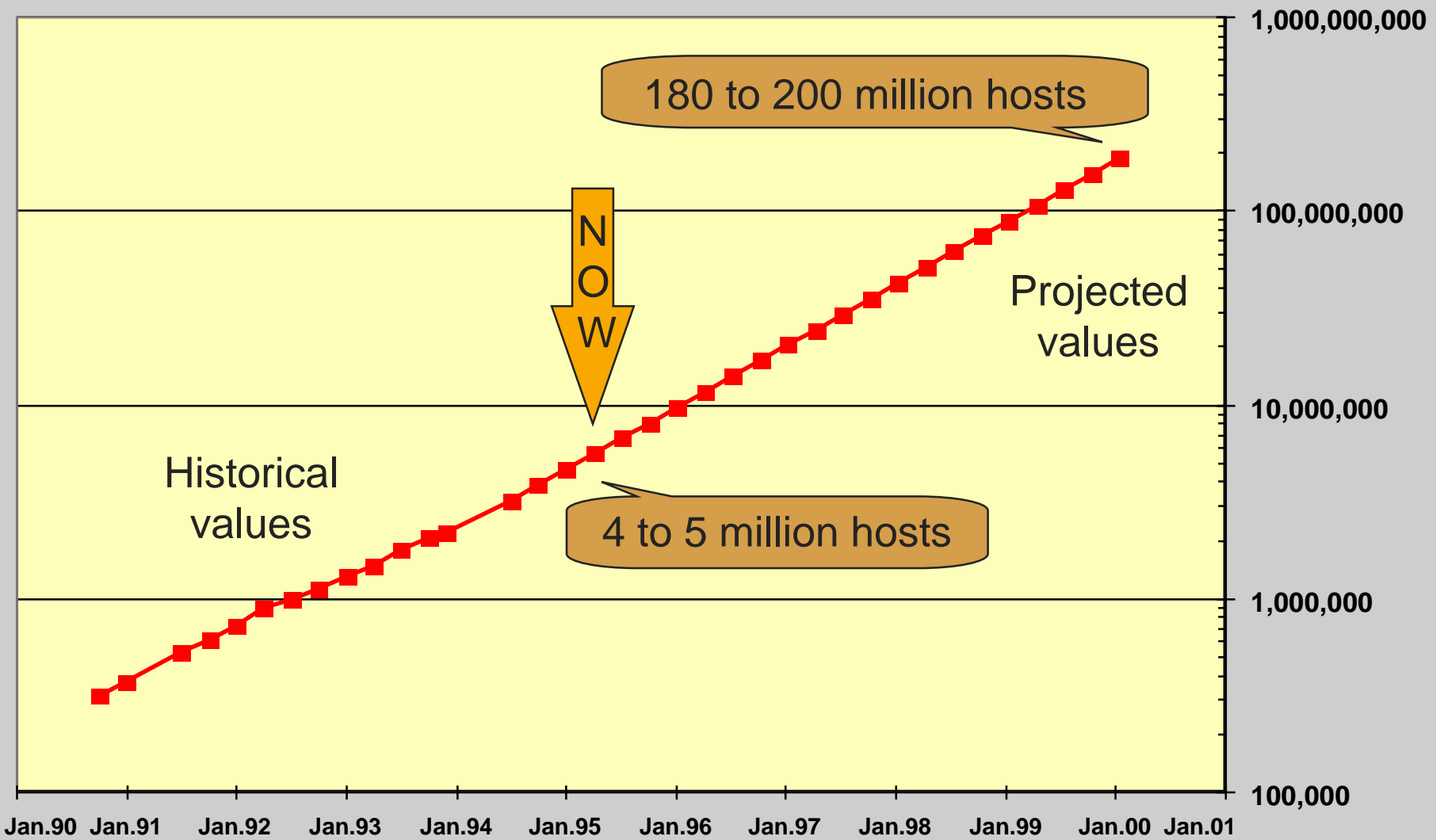
The Internet hype



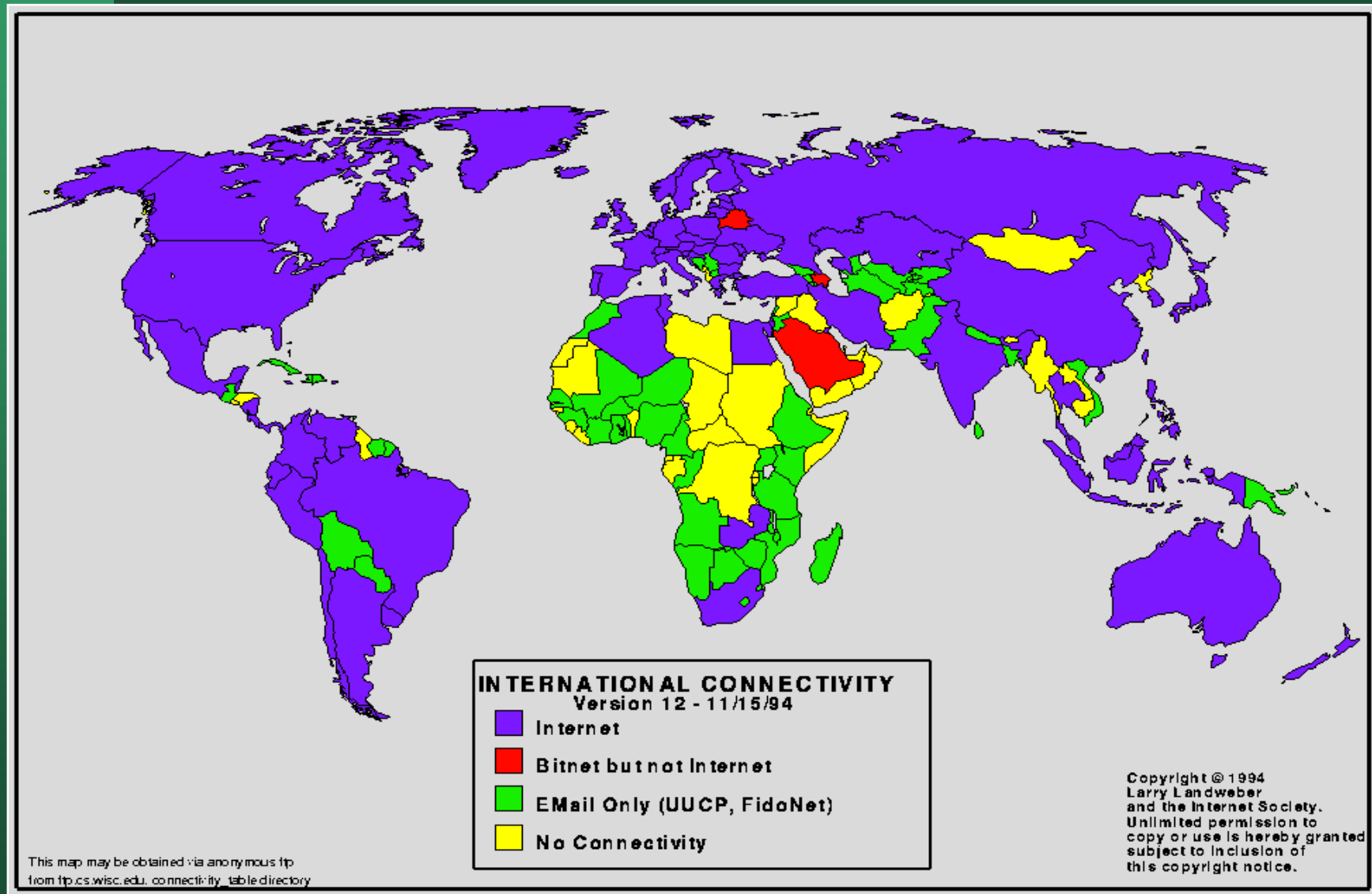
Internet host count - actual



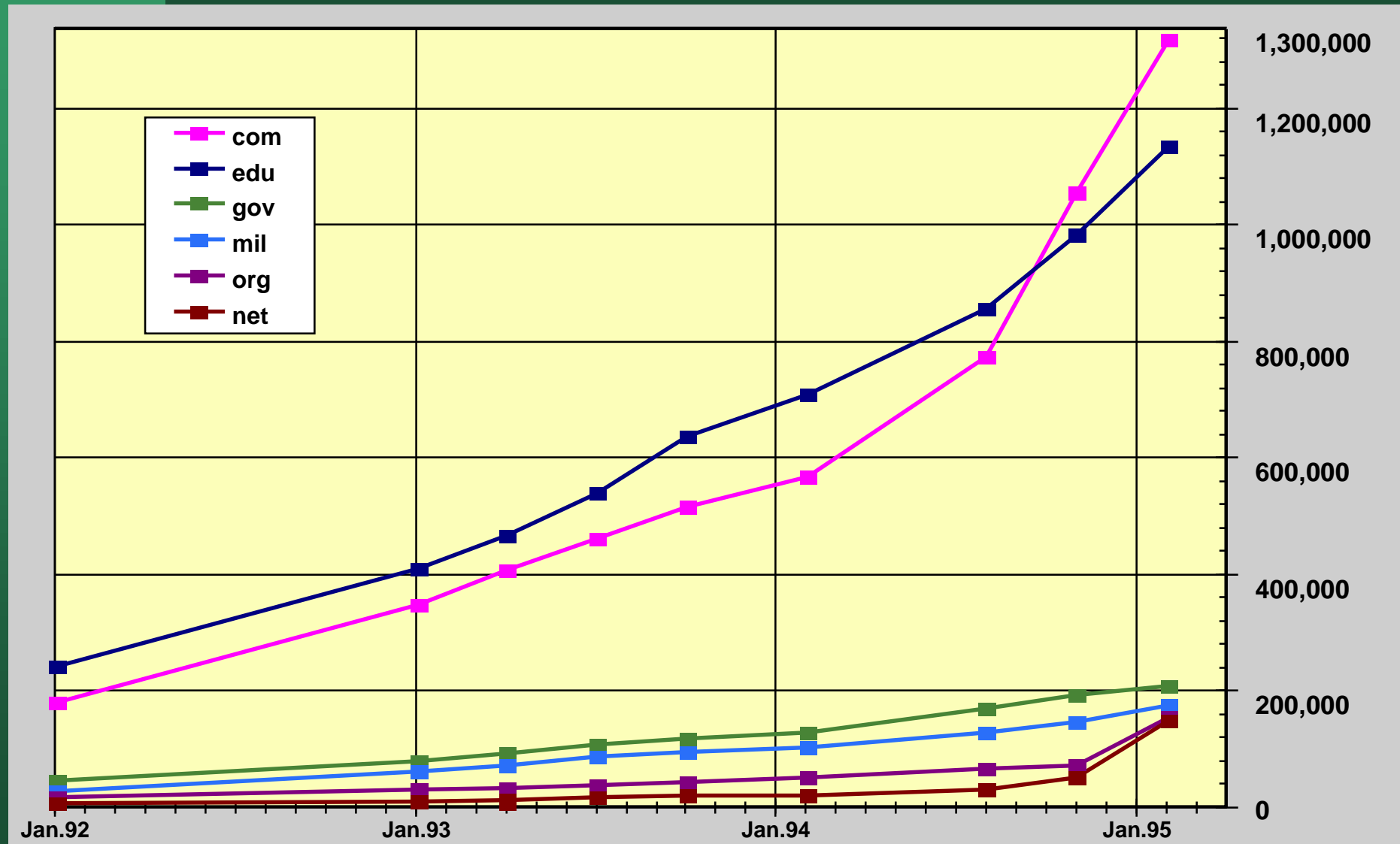
Internet host count - projected



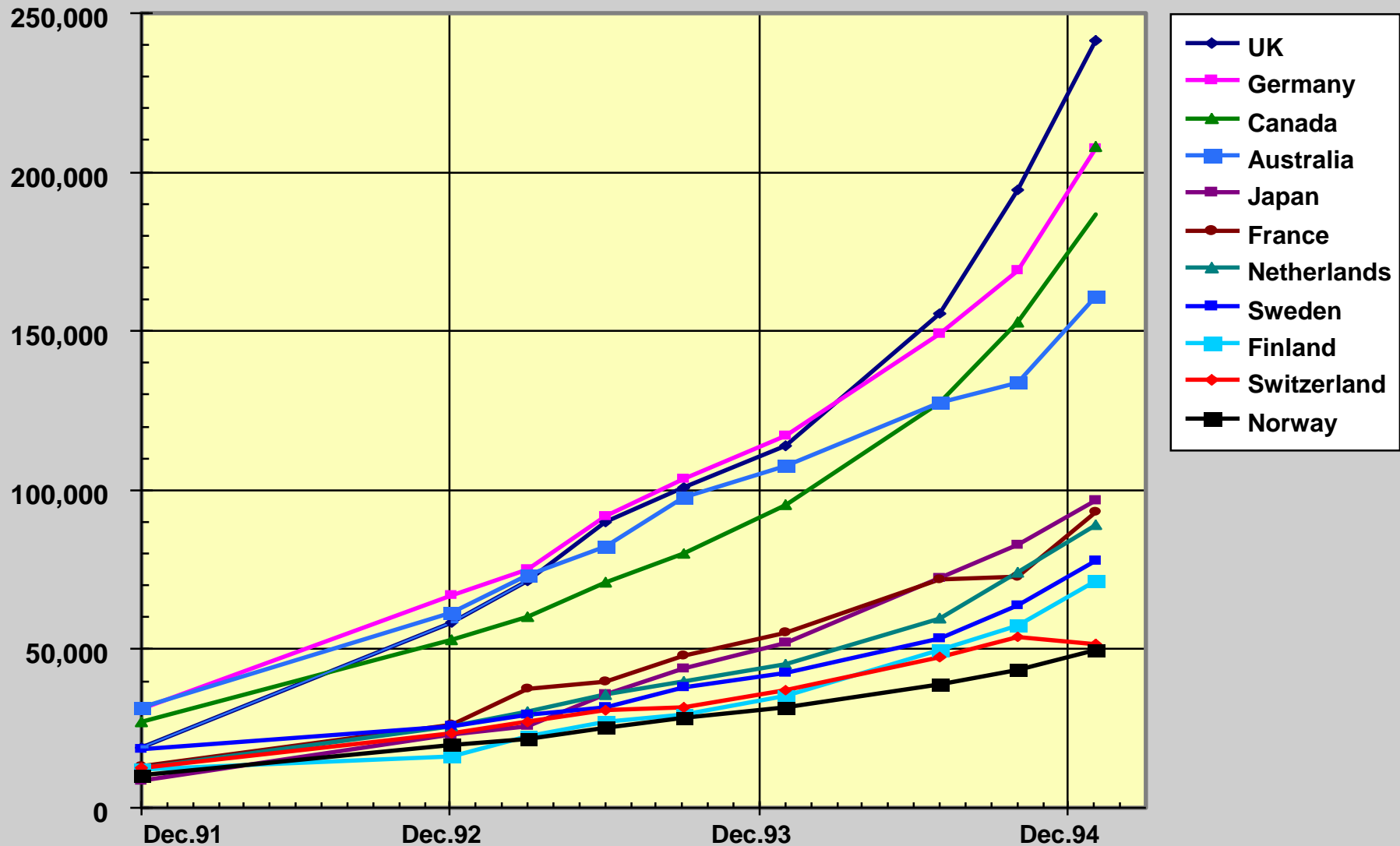
Internet global connectivity



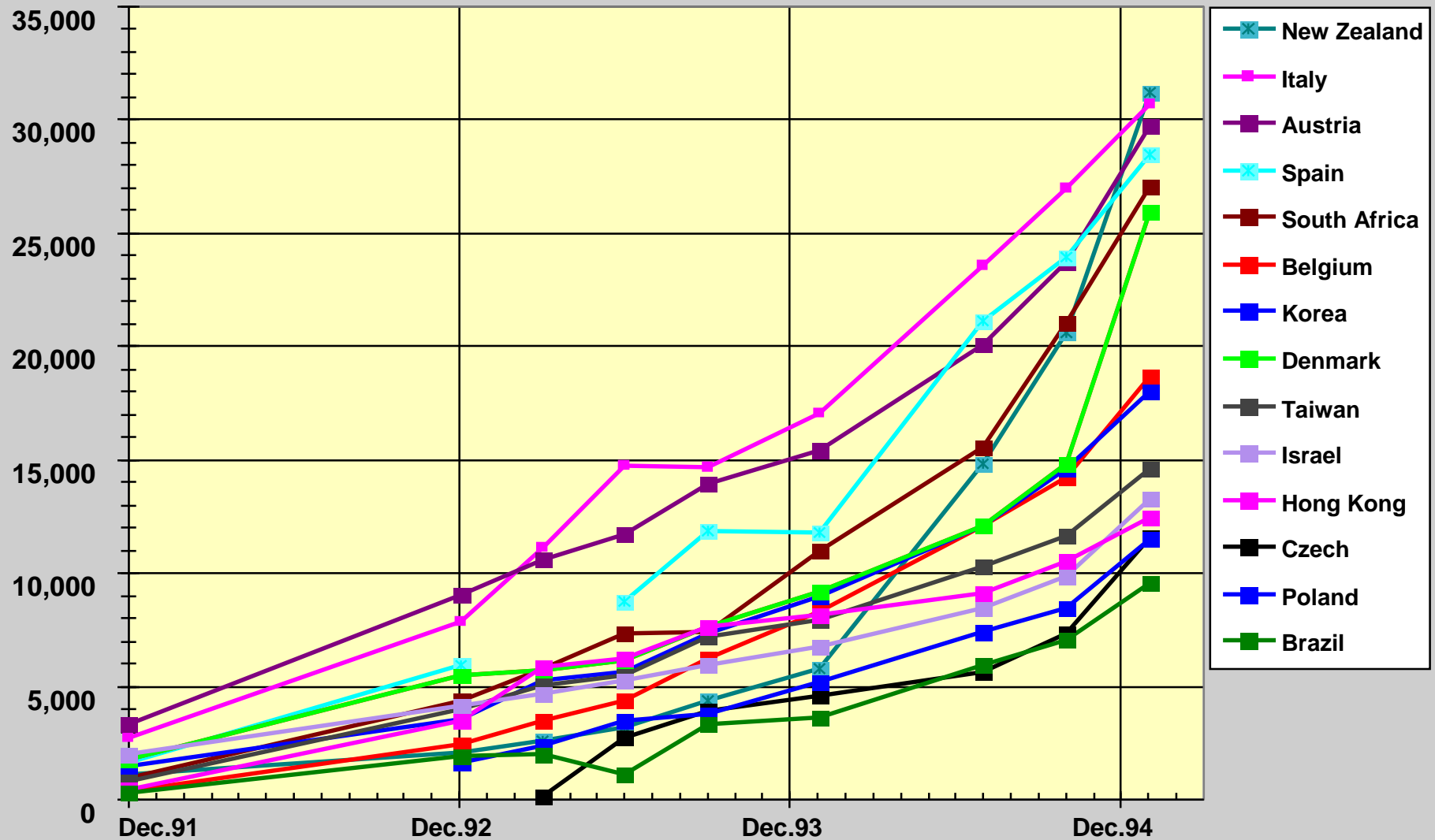
Host count domains



Host count growth - 1st division



Host count growth - 2nd division

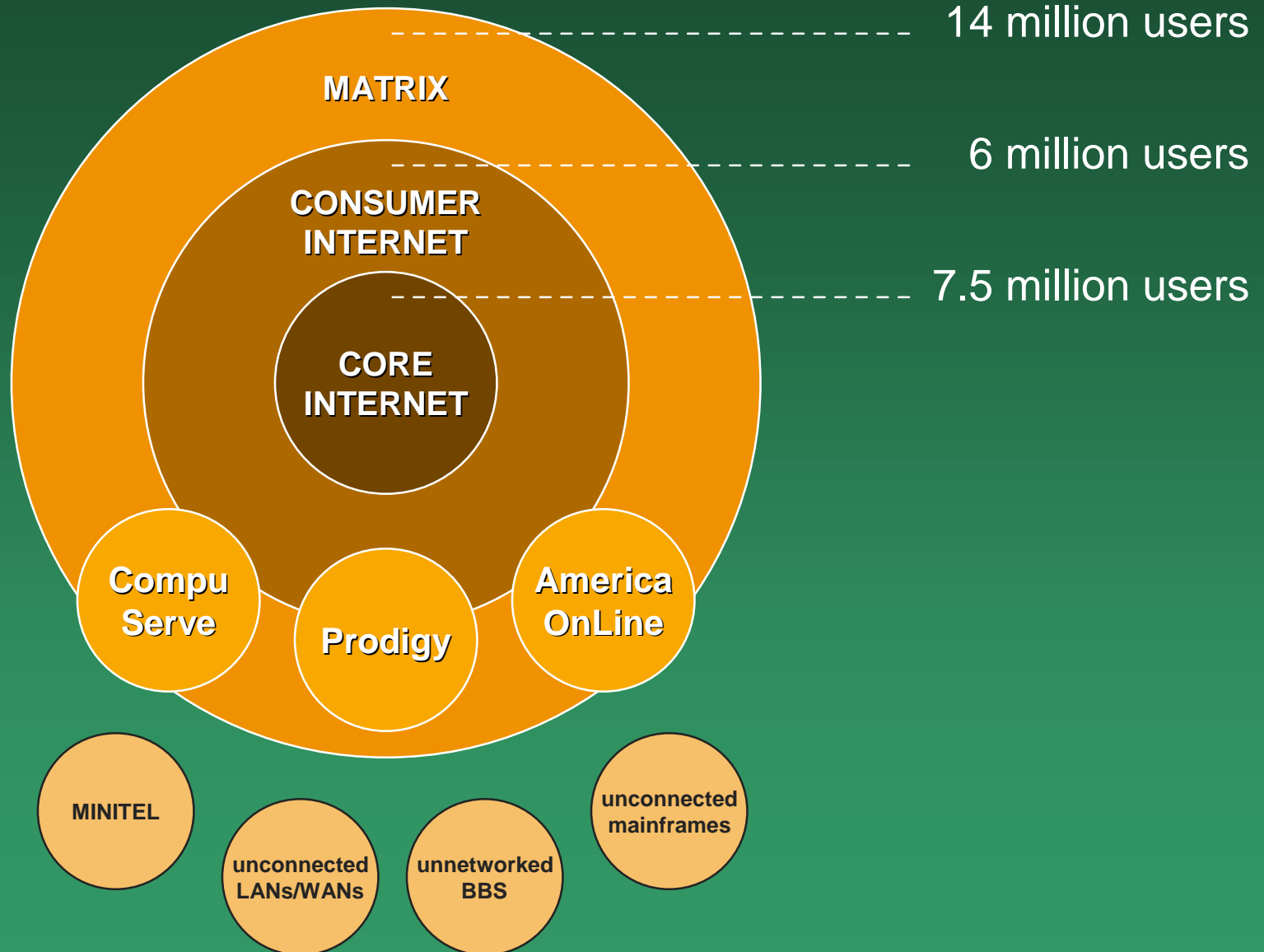


Number of Internet users

- n 10-15% via hosts with direct Internet access
 - 5 million registered hosts/several users per host
 - total: *5 million users*
- n 20-25% via on-line services through gateway
 - AOL, CompuServe, Prodigy, ...
 - total: *5 million users*
- n 60-70% via private networks through firewalls
 - 20.000 private networks/100 users per network
 - total: *20 million users*
- n TOTAL: more than *30 million users*



Who is on the Internet?



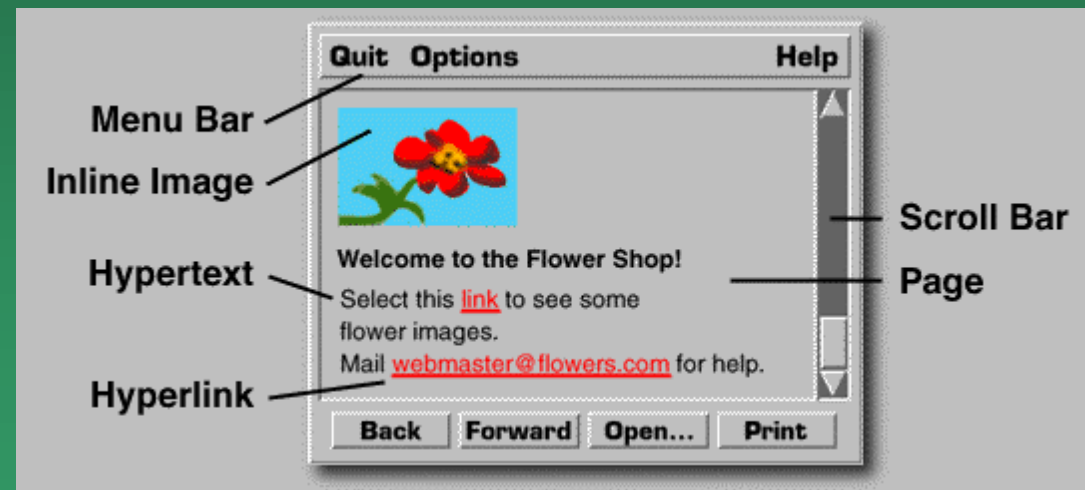
The World-Wide Web

- n the killer application
 - uniform interface
 - seamless access
 - *hypertext* navigation
- n the killer info-service
 - low entry barrier
 - high impact presence
 - testbed for novel services
- n the “VisiCalc of the nineties”



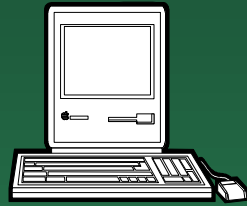
The World-Wide Web

- n easy to use graphical interface
- n rich contents: text, graphics, audio, video, ...
- n rich access: Gopher, FTP, newsgroups, e-mail, ...
- n a document interface to different information sources



The World-Wide Web

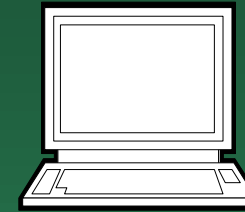
BROWSERS



Macintosh



PC



Workstation



HTTP server

Gopher server

FTP server

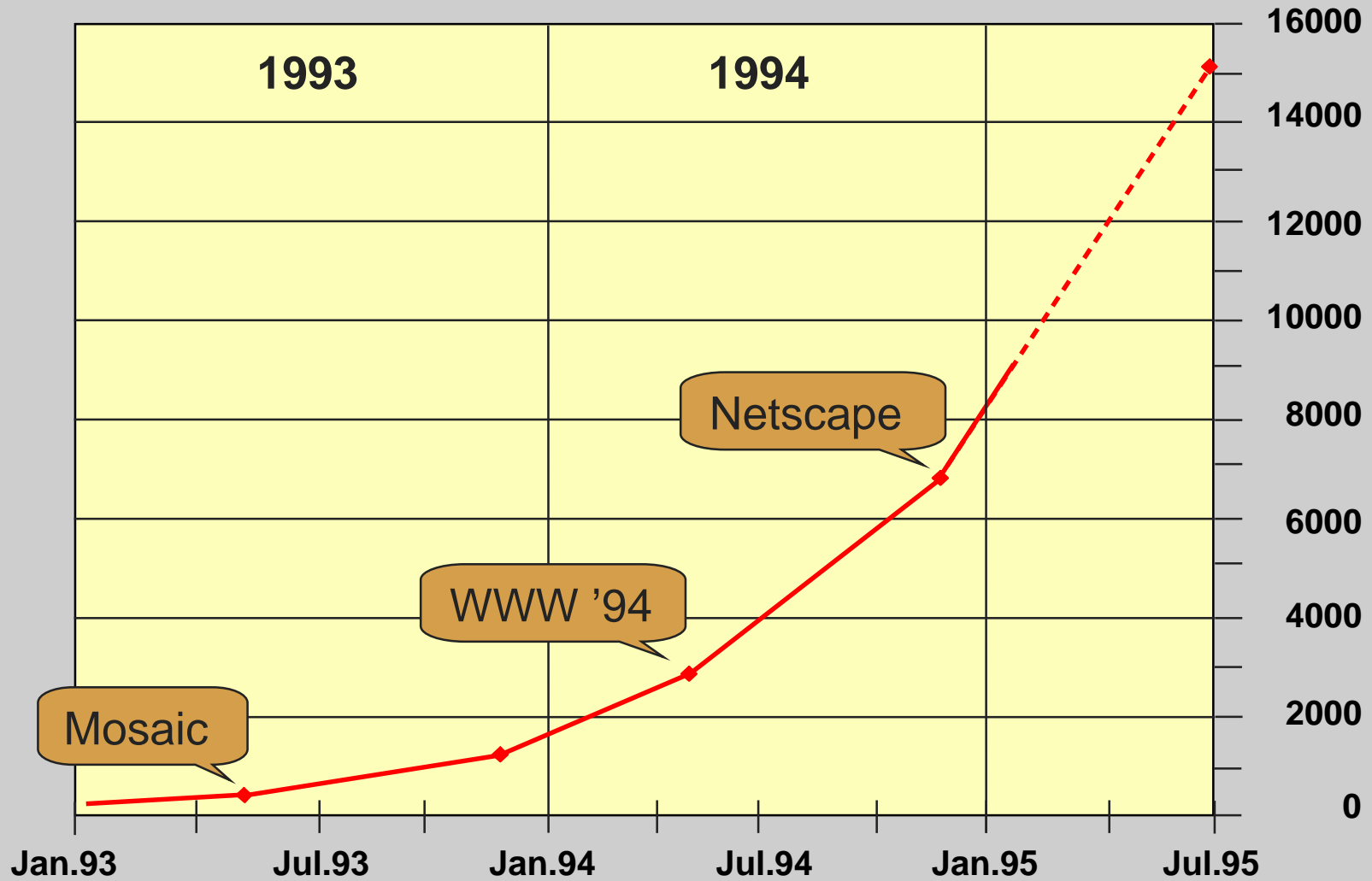
NNTP server

gateway

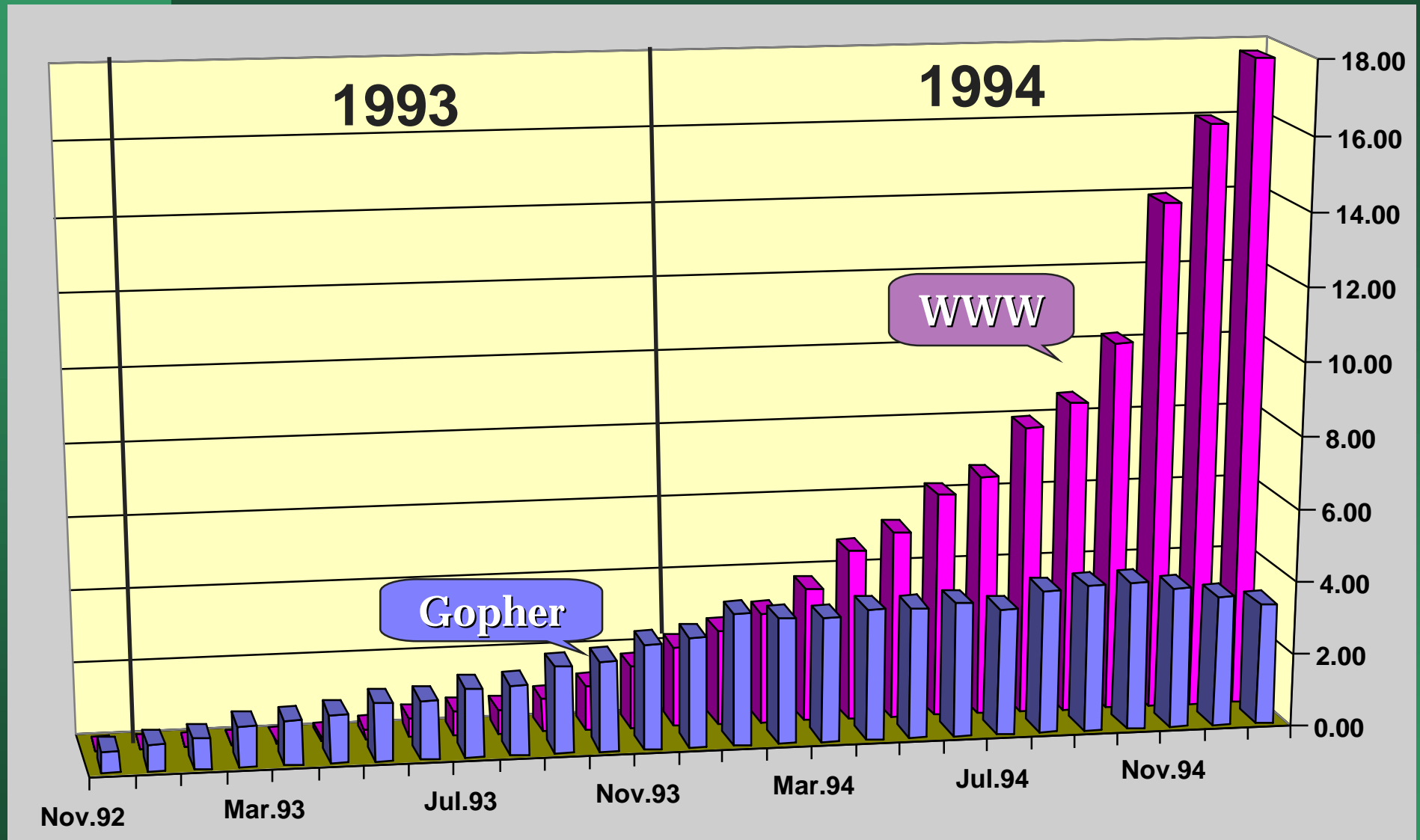


SERVERS

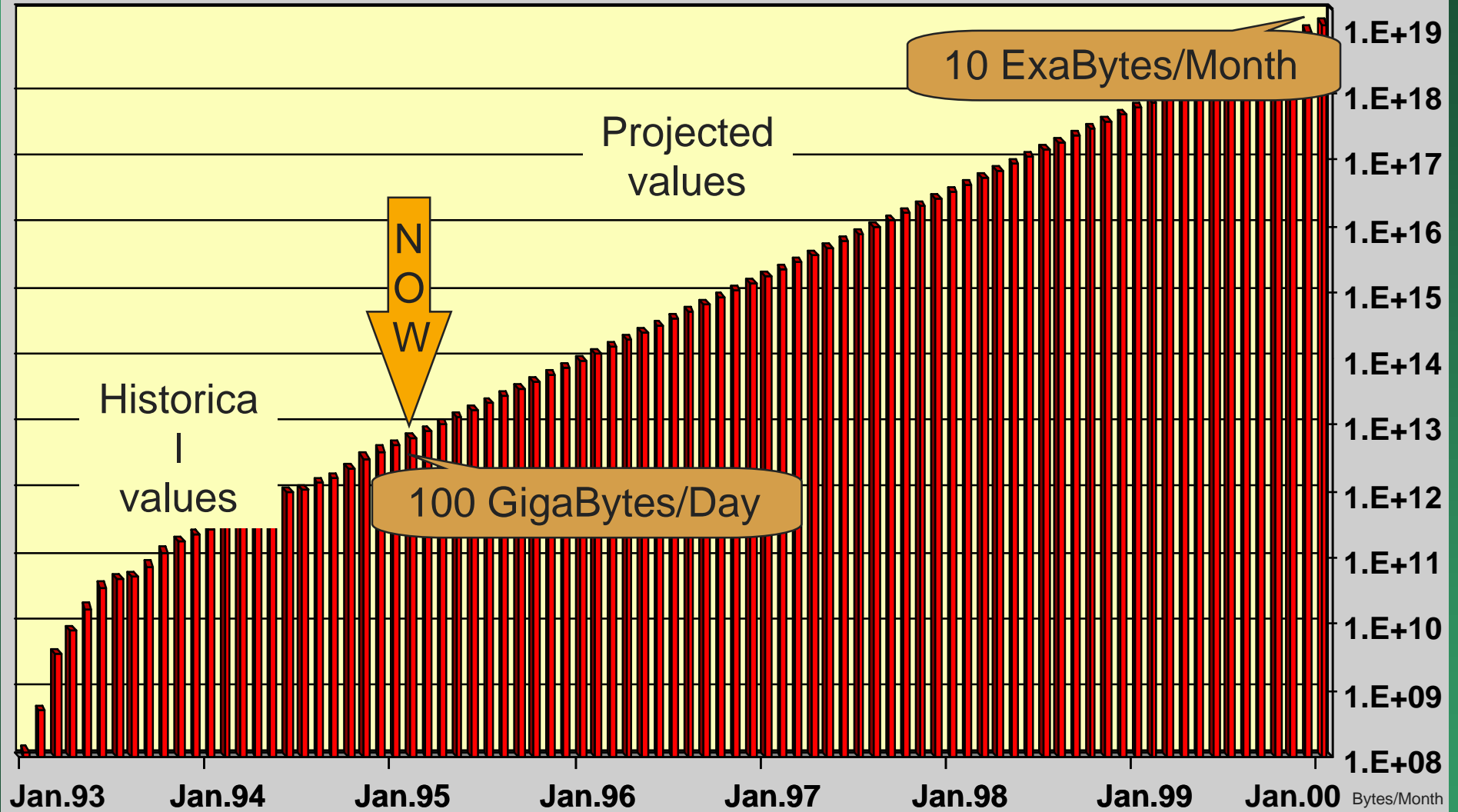
WWW servers - growth



WWW traffic - historical



WWW traffic - projected



What is the Web being used for?

n **POP** : Point of Presence

- establish an on-line corporate presence
- provide access to company-specific information

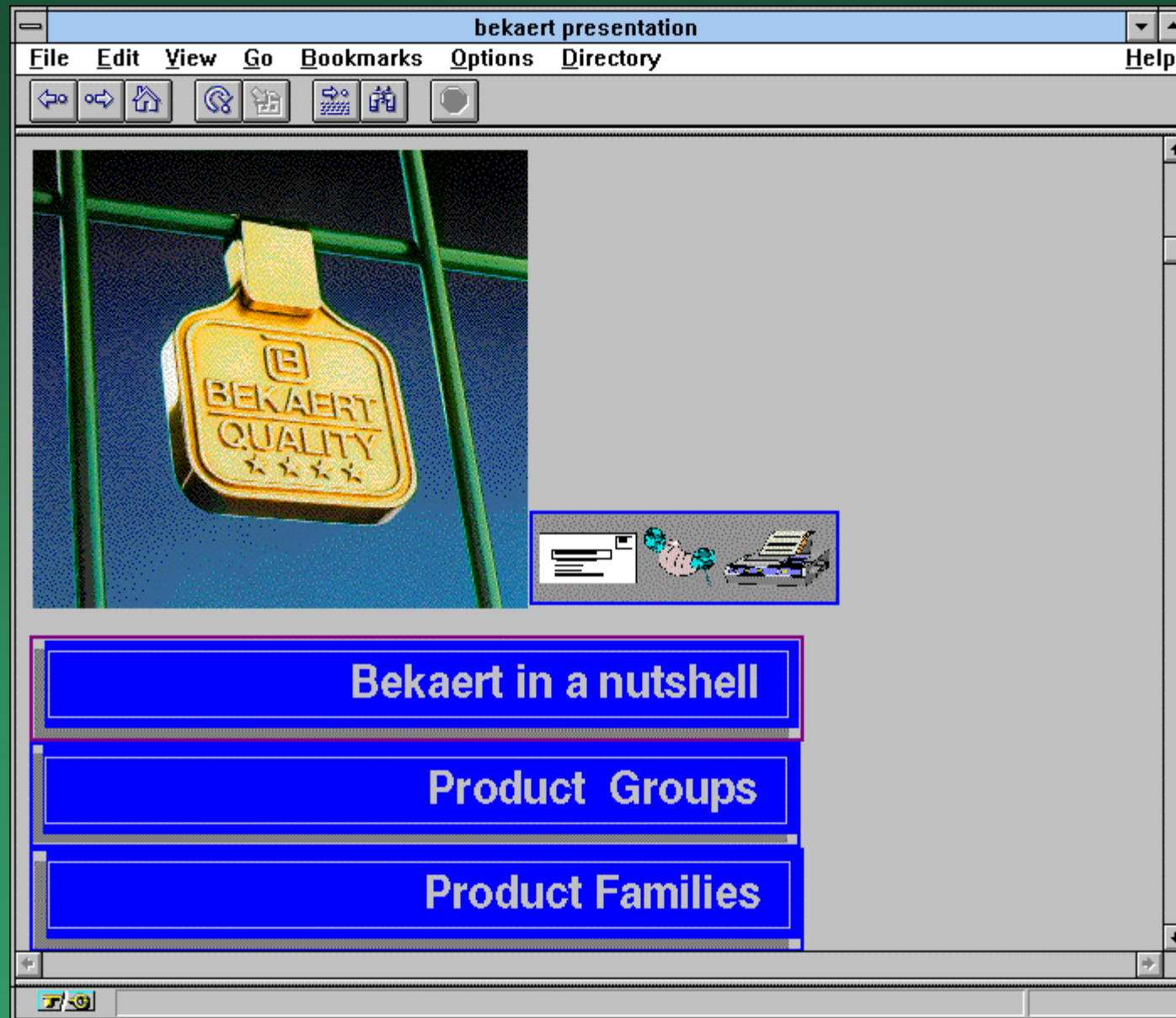
n **POA** : Point of Access

- market products or services (e.g. catalogue, museum)
- deliver Web support services: editing/indexing/filtering

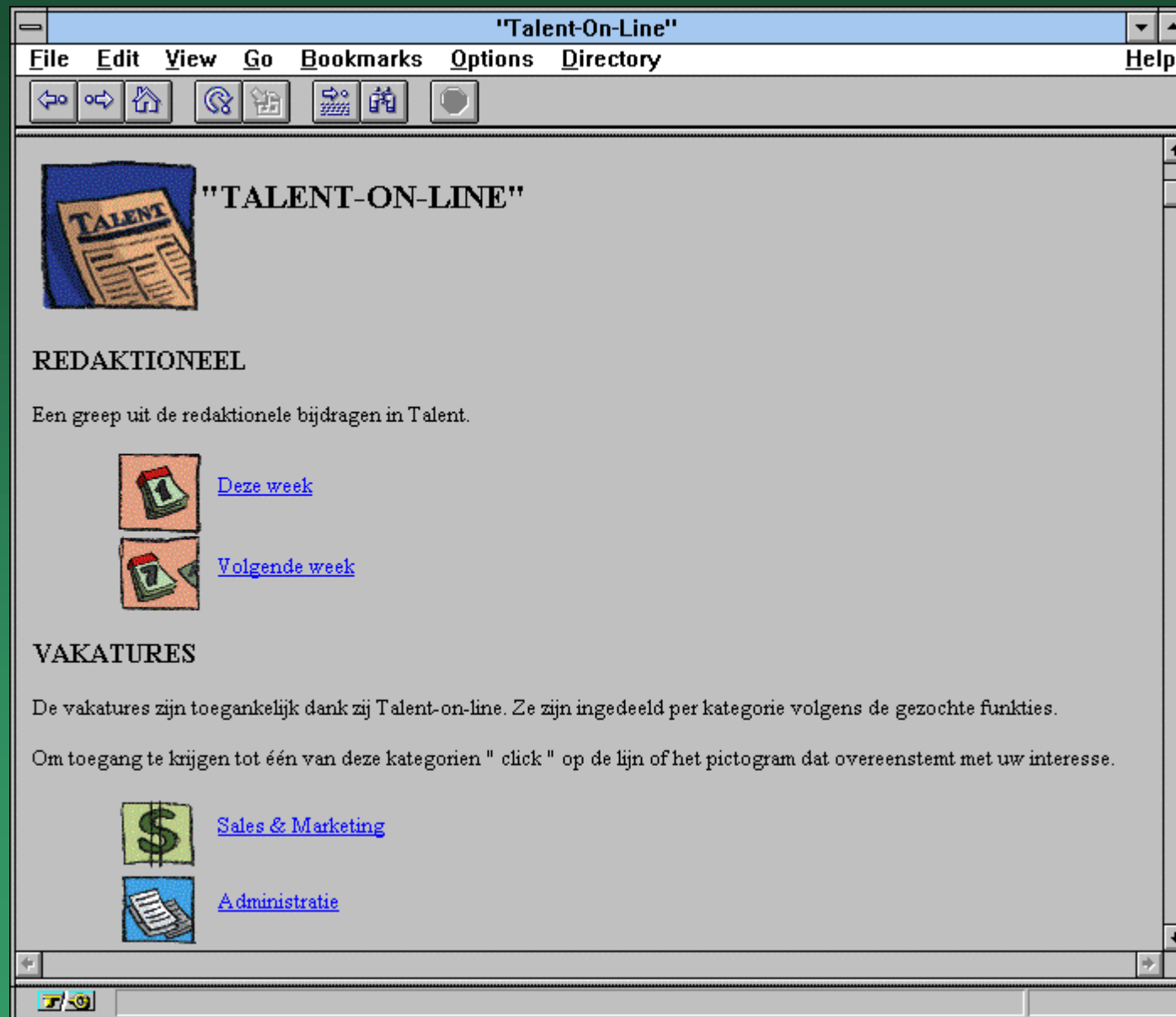
n **POS** : Point of Sales

- sell products: consumer products, industrial tools, ...
- sell information: journals, magazines, financial data, ...

Example: industry



Example: publishing



Example: government

O.S.T.C. Belgium

File Edit View Go Bookmarks Options Directory Help

BELGIAN STATE
PRIME MINISTER OFFICE

O.S.T.C.
FEDERAL OFFICE FOR SCIENTIFIC,
TECHNICAL AND CULTURAL AFFAIRS

SERVICES DU PREMIER MINISTRE
S.S.T.C.
SERVICES FEDERAUX DES AFFAIRES
SCIENTIFIQUES, TECHNIQUES
ET CULTURELLES
Rue de la Science, 8 à 1040 Bruxelles

DIENSTEN VAN DE EERSTE MINISTER
D.W.T.C
FEDERALE DIENSTEN VOOR
WETENSCHAPPELIJKE, TECHNISCHE
EN CULTURELE AANGELEGENHEDEN
Wetenschapstraat, 8 te 1040 Brussel

Tel: 32-2-23 83 411 Fax: 32-2-230 59 12

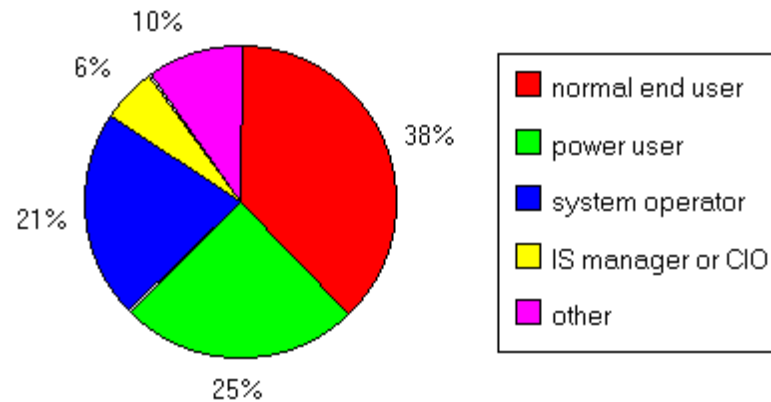
Welcome to the O.S.T.C. ([En](#) / [Fr](#) / [Nl](#))

Federal Research Actions ([Fr](#) / [Nl](#))

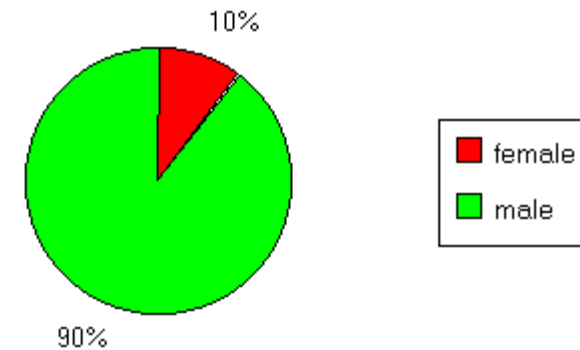
Developments & Applications ([En](#))

Who is using the Web?

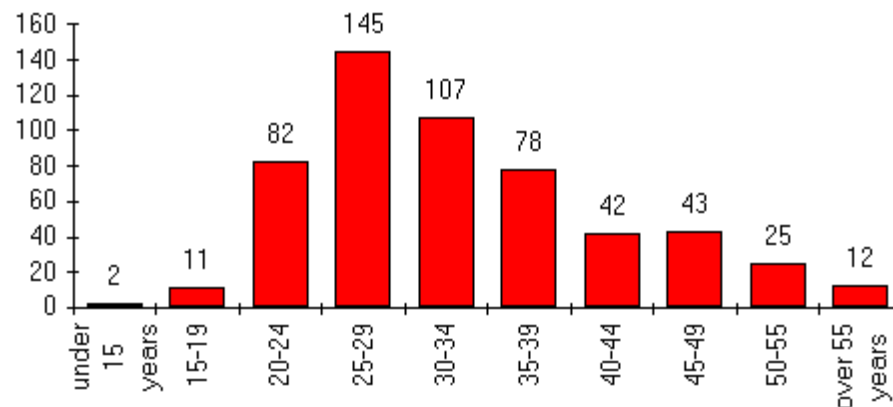
What type of computer user are you?
(N=542)



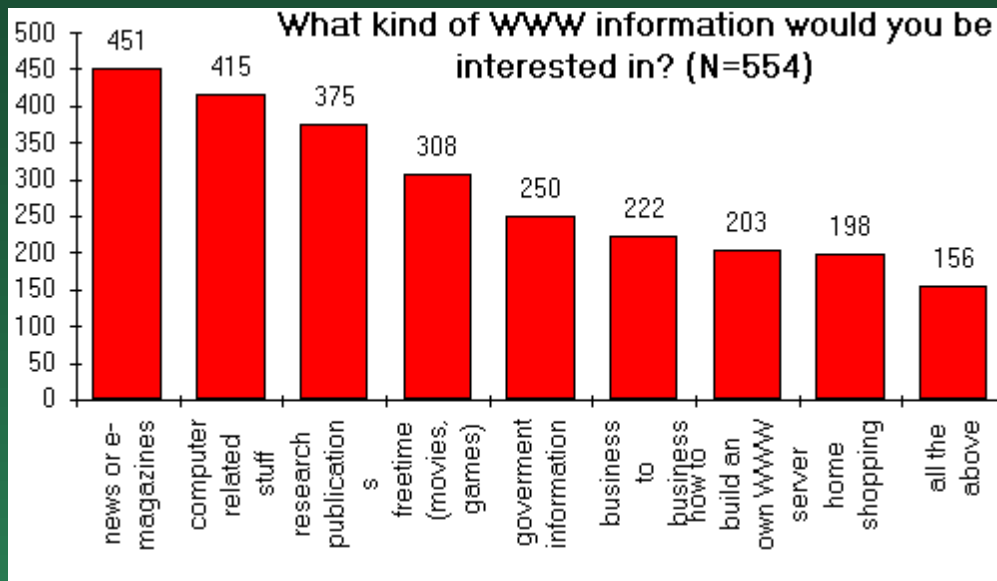
What is your gender? (N=547)



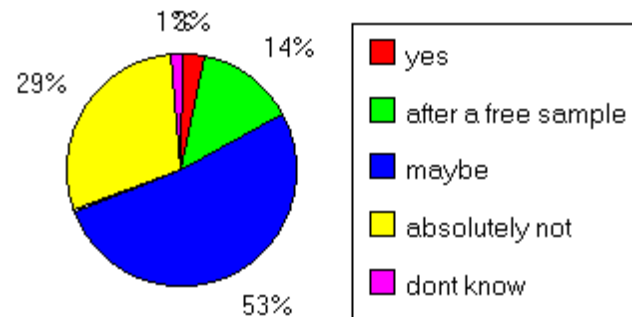
How old are you? (N=547)



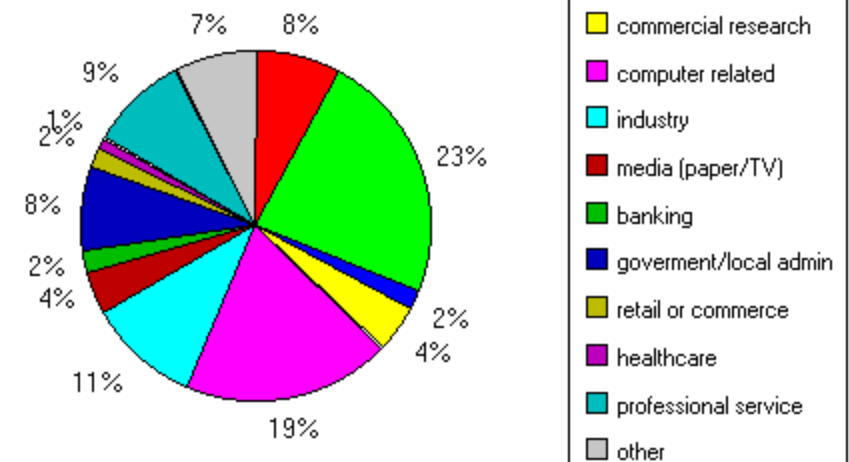
Who is using the Web?



Are you willing to pay for information published in WWW servers? (N=549)



What kind of organisation do you mainly work for? (N=548)



- student
- university/other educational
- public research
- commercial research
- computer related
- industry
- media (paper/TV)
- banking
- government/local admin
- retail or commerce
- healthcare
- professional service
- other

The future of the Internet

n On-line services

- Prodigy: use HTML as format + offer a Webbrowser
- America OnLine: WebSoft subsidiary + Europe OnLine
- CompuServe, Apple eWorld all extending into the Web

n Internet access providers

- telephone companies are slowly waking up
- cut-throat prices so turning into service providers

n The Internet itself

- expect to see a flood of Internet/Web tools, utilities, ...
- Internet access will become part of the OS/application



Microsoft and the Internet

- n Microsoft's Internet strategy
 - completely surprised by the Internet mania
 - turn Windows desktop into a world-wide community
 - ü 40% of Windows users have modems
 - ü fewer than 10% subscribe to on-line services
- n Windows9X with the Microsoft Network
 - provide reliable infrastructure for rich content
 - support different pricing models, advertising, ...
 - *potentially* more users than already on the Internet
- n a “shadow Internet” or an Internet for everybody?



Going on-line using Windows9X

The screenshot shows the Interchange web browser interface. The main window is titled "Interchange" and has a menu bar with "File", "Edit", "Options", "Text", "Window", and "Help". Below the menu bar is a "Directory" sidebar with a tree view containing "Custom", "Interchange Central", "Computing", "Washington Post", "Other Services", and "Member Support". The main content area features a banner for "Interchange Computing" and several news items:

- Intel: P6 processor on the way**
PC Week reports that the next-generation chip is slated to debut in high-end desktops by year's end.
Intel forges ahead with P6
- Use our exclusive toolkit to unleash Word's power**
Word for Windows Toolkit
- You'll make bitmap magic with these top programs**
Top 10 image-editing packages

On the right side of the main content area, there is a vertical list of navigation links:

- News
- Talk
- Downloads
- Magazines
- Buyer's Advisor
- Tech Center
- Reference
- Companies
- [Ad Index]

At the bottom of the browser window, there is a status bar with icons for "Inbox", "Archives", and "Find...", along with a "Discover what's out there" banner and a "Not Connected" status indicator.



The challenges for the Internet

n Accessibility

- network infrastructure
 - è one-stop access, low cost providers, ...
- network interface
 - è built-in tools, ready-to-go applications, ...

n Reliability

- network stability
 - è predictability, robustness, ...
- network security
 - è system integrity, personal privacy, ...

The challenges for the Internet

n Usability

- retrieval support
 - è indexing tools, searching agents, ...
- quality mechanisms
 - è information filtering, editing, SOAPs, ...

n Commercialibility

- sales support
 - è ordering, distribution, ...
- payment mechanisms
 - è on-line transactions, e-money, ...

The Internet (r)evolution: your place

n member of the **Core** Internet

è your goal: use the Internet as an Infobahn testbed

- set up your own Web server
- hire space on an existing Web server

n member of the **Consumer** Internet

è your goal: find out about what's available/happening

- use commercial package of Internet software tools

n member of the **Matrix**

è your goal: stay in touch without actively interacting

- get e-mail access from your LAN/SOHO to the Internet



The Internet (r)evolution: conclusion

- n the Internet will turn commercial, but who will profit?
- n the Internet is an organism, not an organisation
- n if the service is there, the users will follow ...

