1   HCI and the Web

Literature:

- Jakob Nielsen: Designing Web Usability, New Riders 2000

- Steve Krug: Don't Make Me Think, New Riders 2006
  (2nd ed.)

- Shneiderman, Plaisant: Designing the User Interface: Strategies
  for Effective Human-Computer Interaction (5th Edition)

The Web Means Heterogeneity of Platforms

- Processing power
  - Processor, co-processors, cache
  - RAM

- I/O-performance
  - Hard drive speed
  - Network

- Input and Output
  - Displays
  - Keyboard layout

- Additional Hardware and Periphery
  - Video and audio (in/out)
  - Card reader, printer, scanner

- Software,
  - Browser
  - Operating System

Differences ...

Statistics on Platform Usage

But:

- Never trust the statistics!
  - Also small groups of users are important!
  - Statistics may be very unreliable

Browser Statistics Month by Month

2009	IE7	IE6	IE8	Firefox	Chrome	Safari	Opera
September	15.3%	12.1%	12.2%	46.6%	7.1%	3.6%	2.2%
August	15.1%	13.6%	10.6%	47.4%	7.0%	3.3%	2.1%
July	15.9%	14.4%	9.1%	47.9%	6.5%	3.3%	2.1%

2008	IE7	IE6	IE5	Firefox	Chrome	Safari	Opera
December	26.1%	19.6%		44.4%	3.6%	2.7%	2.4%
November	26.6%	20.0%		44.2%	3.1%	2.7%	2.3%
October	26.9%	20.2%		44.0%	3.0%	2.8%	2.2%

...

2002	IE6	IE5	AOL	N3	N5	N4	IE4
November	53.5%	29.9%	5.2%	1.1%	4.9%	2.0%	
September	49.1%	34.4%	4.5%	1.3%	4.5%	2.2%	
July	44.4%	40.1%	3.5%	1.2%	3.5%	2.6%	0.5%

OS Platform Statistics

Windows XP is the most popular operating system. The Windows family counts for about 90%:

2009	WinXP	W2000	Win7	Vista	W2003	Linux	Mac
September	65.2%	0.8%	3.2%	18.3%	1.5%	4.1%	6.5%
August	66.2%	0.9%	2.5%	18.1%			
July	67.1%	1.0%	1.9%	17.7%			

Display Resolution

The current trend is that most computers are using a screen size of 1024x768 pixels or more:

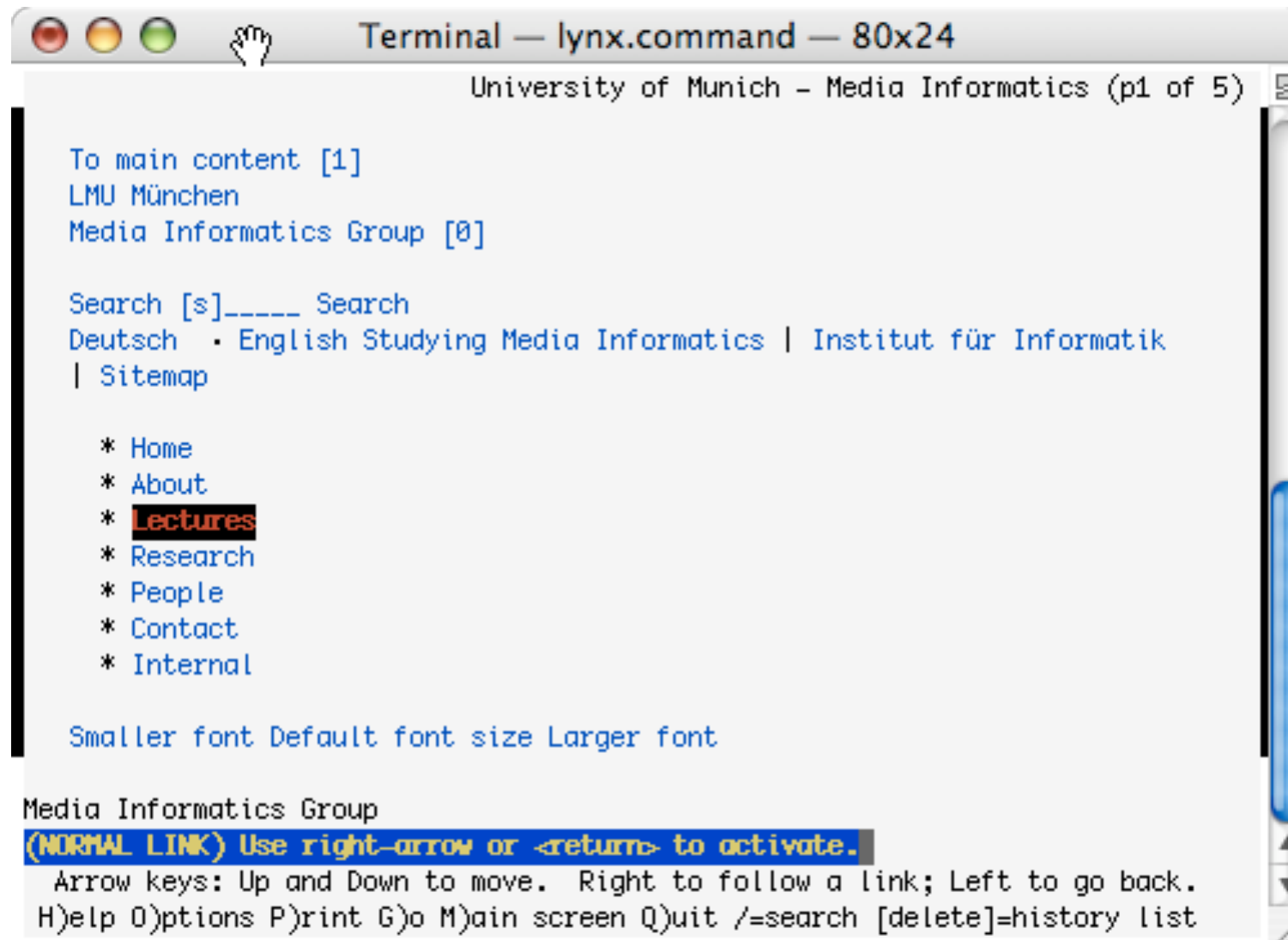| Date	Higher	1024x768	800x600	640x480	Unknown
January 2009	57%	36%	4%	0%	3%

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Other Graphical Browsers

What are the Differences?

- Input
  - Text entry
  - Speech
  - Granularity
  - ...
- Security / Privacy
- Mobility
- Capabilities
  - Plug-ins
  - Video
  - Bandwidth
  - Multitasking
- Cost

- Output
  - Text
    - Language
    - Direction
    - Fonts
    - Size
  - Display
    - Size
    - Resolution
    - Displayable colours
    - Aspect ratio
  - Speech
    - ...

Plain Text Browser, e.g. Lynx

Audio Browsing

- There are users who *listen* to Web sites!
- Example:
  - Web browser *Safari*
  - Screen reader *Voice Over* (built into Mac OS)
- Who among the Web designers will think of these users?

VoiceOver
Your Mac speaks for itself.

Heterogeneity of Users

- In principle, anybody can use the Web!
- Huge span of user variety:
  - Kids
  - Beginners
  - Elderly
  - Experienced technically educated professionals
  - Technically ill-educated professionals
  - Hackers
- "Know Thy User" - Is it possible on the Web?
- Why do people use the Web?
  - Assumedly easy and simple way of achieving things
  - Because it is fun
  - Because there are no other options
- (As always:) Simplicity is most important