

Web-based Survey of Student Computing Use

A Web-based survey of student computer use was conducted during the period February 25 through March 4, 1998. Replies were received from 373 Undergraduates and 151 Graduate Students.

Replies received:

<u>Year</u>	<u>Number of replies</u>
1998	71
1999	73
2000	104
2001	125
Graduate Student	151
Total	524

Computer ownership

<u>Year</u>	<u>Own at least one computer</u>	<u>% of students surveyed</u>
1998	60	85%
1999	64	88%
2000	86	83%
2001	96	77%
All undergrads	306	82%
Grad Student	112	74%
Total	418	80%

Note: 15% of the undergraduates surveyed and 22% of the graduate students report owning *two* computers at school.

Type of computer:

<u>Make</u>	<u>Number</u>	<u>% of all computers</u>
Intel	432	87%
Macintosh	55	11%
UNIX workstation	12	2%

<u>Style</u>	<u>Number of computers</u>	<u>% of all computers</u>
Desktop	416	82%
Laptop	89	18%

Overall, 16% of the students surveyed report owning at least one laptop. This number is significantly higher for graduate students than for undergraduates.

	<u>Number of students owning a laptop</u>	<u>% of all students surveyed</u>
Undergraduate	43	12%
Grad Student	41	27%
Grad + undergrad	84	16%

Connection to MITnet and Printer Ownership:

	<u>Have connection to MITnet</u>	<u>% of students with computers</u>	<u>% of all students</u>
Dorm	262	93%	76%
ILG	69	91%	73%
Other	14	25%	18%
Total	345	83%	66%

	<u>Number</u>	<u>% of students with computers</u>	<u>% of all students</u>
Own a printer	180	43%	34%
Are on MITnet	345	83%	66%
Printer <i>and</i> MITnet	142	34%	27%

Operating systems on Intel machines

Students report running the following operating systems on their Intel machines:

Win95 only	45%	Use Win95 at all	69%
Win95/UNIX	15%	Use UNIX at all	39%
UNIX only	13%	Use WinNT at all	21%
WinNT only	8%	Use Win3.1 at all	7%
Win95/NT/UNIX	6%		
Win3.1 only	6%		
WinNT/UNIX	4%		
Win95/NT	3%		
Win3.1/UNIX	1%		

Use of personal computers (Students were asked to think of their computer use during the previous month, i.e. February '98)

The median number of hours per week that students report using a personal computer is 20 to 23 hours. The mean is 35.5 hours.

Activities done on personal computers, in decreasing order of frequency mentioned, are:

<u>Activity</u>	<u>% reporting this use</u>
Email	89%
Browsing the Web	62%
Homework (other than uses explicitly mentioned here)	55%
Writing papers	39%
Web use for classwork	39%
Communication other than email	38%
Database searching (e.g. library information resources)	15%
Writing a thesis	11%
Research for a thesis	10%
Group projects	8%

When only the first three items mentioned are considered, this changes to:

Email	89%
Browsing the Web	62%
Communication other than email	38%
Homework (other than uses explicitly mentioned here)	32%
Writing papers	21%
Web use for classwork	20%
Writing a thesis	9%
Research for a thesis	5%
Database searching (e.g. library information resources)	5%
Group projects	2%

Email:

Of the people who have their own computer,

<u>Where they read email</u>	<u>% of personal computer owners</u>
<i>Only</i> on their own computer	14%
<i>Mostly</i> on their own computer	49%
Evenly divided between own and Athena	25%
<i>Mostly</i> in Athena clusters	6%
<i>Only</i> in Athena clusters	2%
Elsewhere (e.g. labs, at work)	4%

Of people who read email at all on their own computer,

<u>Application used to read email</u>	<u>% of personal computer mail readers</u>
Eudora	52%
Telnet to Athena	27%
Netscape mail	3%
Other	18%

Of people who read mail both in Athena clusters and on their own personal computer, the following table indicates where they store email:

<u>Where they read email</u>	<u>% who store mail on Athena</u>
Mostly on Athena	92%
Evenly divided between own and Athena	69%
Mostly on their own computer	39%

Overall, of those who read mail both on Athena and on their PC, 53% store mail on Athena

Quickstations

Students were asked how often they used Athena Quickstations to read email:

	<u>Often</u>	<u>Sometimes</u>	<u>Never</u>
Own a computer	17%	53%	29%
Don't own a computer	26%	61%	12%
Overall	19%	55%	26%

Use of Athena

Self-reported data on the number of hours and number of sessions per week that students use Athena is suspect except for those students who report very little use. For what it's worth, the following table shows the average number of sessions and hours per week that were reported. The standard deviation in all numbers is very large, and it is difficult to know how to get meaningful numbers out of the data because of the large number of students who report under one hour per week and the outliers at the upper end who report over 70 hours per week..

	<u>Mean sessions/week</u>	<u>Mean hours/week</u>
Own a computer	4.4	5.0
Don't own a computer	10.8	12.8
Overall	5.7	6.6

Because of the outliers and skewed tail, a more meaningful measure in this case is the median. It should be noted that the data below include 47 students who reported zero of Athena.

	<u>Median sessions/week</u>	<u>Median hours/week</u>
Own a computer	2 to 3	2
Don't own a computer	9 to 10	9 to 10
Overall	3	3.5

The following table reports the percentage of students who mention doing each activity on Athena, tabulated for all respondents, for those who own a computer (Y), and for those who do not own their own computer (N):

	All	Y	N
Email	79%	75%	93%
Homework (other than uses explicitly mentioned here)	45%	43%	50%
Browsing the Web	40%	36%	56%
Communication other than email (e.g. Zephyr, discuss)	37%	37%	36%
Web use for classwork	31%	30%	34%
Writing papers	15%	11%	35%
Database searching (e.g. library information resources)	12%	11%	15%
Group projects	5%	5%	6%
Research for a thesis	5%	6%	8%
Writing a thesis	2%	2%	4%
other	11%	11%	8%

Software applications mentioned as being used by at least 5% of the students, with the percentage of students in each category who mention each application are:

	All	Y	N
Matlab	43%	44%	38%
C	35%	34%	41%
FrameMaker	31%	25%	56%
Maple	17%	17%	19%
Xess	12%	10%	20%
AutoCAD	5%	5%	6%

As expected, the largest difference between those who do and those who don't own their own personal computers appears in the area of wordprocessing and spreadsheets, with twice as many students who do not have their own computers using Frame and Xess as those who have access to word processing and spreadsheet programs on their own machines.

Mobile Computing

The question was asked: *If space were available in your dorm or ILG outside of your room for you to connect your own personal computer to MITnet, would you use it?*

Of those who answered this question, 43% said Yes, 26% said No, and 31% said they were unsure. There was no measurable difference between those who own their own computer and those who do not.