

INTERNET USE, MASS MEDIA AND OTHER ACTIVITY IN THE UCLA DATA

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ABSTRACT

[\(Data Available\)](#)

In this secondary analysis of the UCLA year 2000 data, an MCA multivariate approach is used to test the relation between Internet use, mass media and other activities, using both behavioral and attitudinal data in the UCLA surveys. These analyses indicate little consistent evidence of significantly decreased media or other behavior among heavier Internet users, after age, education, income, race, gender and marital status are taken into account. Internet users did report 5 hours less TV viewing, but only 1.5 hours less after MCA adjustment, and the differences were not monotonic with amount of Internet use.

On the contrary, there is significant evidence of more reading of books, video game playing and music listening among Internet users, even after adjustment for these same demographic factors. Radio listening and reading newspapers/magazines were also high among heavier Internet users, but the relationships were neither monotonic nor significant. Subjectively, Internet users did rate less importance than nonusers for TV, radio, organizations and colleagues as sources of information—but not for entertainment.

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The year 2000 UCLA study, “Surveying the Digital Future,” examined the relation between Internet use and a broad range of behaviors and attitudes thought to be affected by IT use. Two articles in the first issue of *IT&Society* examined the relation between usage and sociability attitudes and behavior in the UCLA data. The present article examines the relation of usage to TV and a variety of other media and other activities (like video games and exercise), and to a series of questions on the perceived importance of various media as sources of both information and entertainment.

As in the earlier article on sociability, the technique of Multiple Classification Analysis (MCA) is employed to adjust bivariate relations for the effects of other predictors. MCA was developed by social survey analysts Andrews, Morgan and Sonquist (1973). The technique was part of the original Osiris statistical package at the University of Michigan, but as that package became outdated some decades ago, it became incorporated as part of the ANOVA program of the Statistical Package for the Social Sciences (SPSS).

The important value of MCA (as illustrated in the analyses of the GSS Internet data in this issue) is that it allows analysts to calculate averages for all groupings of a variable in a multivariate analysis. If there are seven age groups, MCA does provide a summary regression coefficient (*eta*), describing the overall relation between age and a dependent variable of interest (say TV use); but more importantly, MCA provides the particular TV viewing for each of the seven age categories. Moreover, MCA allows the analyst not only to see such age group differences in scores originally (as they are found in the survey on a simple bivariate basis), but also to see the average scores for these age groups *after adjustment* for the fact that the different age groups differ on education, income and other background predictors of TV viewing. In this way, then, MCA shows what estimated viewing would be for that age group, if all other factors were equal—if all groups had equivalent education, income and the like.

It is not enough, then, to know that there are significant age differences in TV viewing, but to know in what age groups differences are most apparent. Perhaps, viewing increases steadily with age, as people enter the “empty nest” stage of life and their social networks decline, or as people get settled into a home life that they do not like to venture out of. On the other hand, TV viewing may decline as older people find more out-of-home interests. Perhaps, viewing peaks in certain ages, say for people in their twenties before they get married—or after retirement in their sixties. The value of MCA is that it allows the analyst to see which of these or other patterns characterizes different age groups, not just that the age groups are different. Likewise, in the case of marital status, do all unmarried groups (divorced, separated, widowed or never married) watch less (or more) than married people—or are widowed people different from other unmarried groups? The technique of “dummy variable regression” is often employed to the same end, but that technique is far more cumbersome and difficult to describe and execute than MCA (as for example in Appendix B of Article 7 in the first issue of *IT&Society*).

In the analyses that follow, then, the MCA technique is employed to analyze the UCLA data from a more “qualitative” perspective than that afforded by traditional regression techniques.

METHODOLOGY OF THE UCLA SURVEY

In designing “Surveying the Digital Future,” the primary goal of the UCLA Center for Communication was to create a representative national sample of users and nonusers. Telephone interviews were conducted by a commercial research firm in Los Angeles with 2096 individuals in households throughout the country, using a national Random Digit Dial (RDD) telephone sample. The survey employed an Equal Probability Selection Method (EPSEM) sampling procedure that gave every telephone number in the 50 states and the District of Columbia an equal chance of being selected.

Once the EPSEM random sample of telephone numbers was generated, those households that had listed residential telephone numbers were first sent an advance letter informing them of their household’s selection for the project. Second, an interviewer called that number and spoke to a person in the household 18 years or older in order to obtain a roster of all household members. Then a computer system (CFMC Survent CATI) randomly selected one individual from among those age 12 and over in the household to be the respondent from that household. If the randomly selected individual was between 12 and 17 years of age, the interviewer asked a parent or guardian for permission to interview the child.

Once that household member was randomly selected, only that individual was eligible to complete the interview. Eight call attempts were made to complete an interview, and households that refused twice were not contacted again. Interviews were conducted in English and in Spanish and took place between April and June of 2000.

The collected responses were compared to U.S. Census Bureau data to ensure that the sample was representative of the U.S. population in terms of geographical distribution, race, ethnicity, age, sex, education and household income. The sample was close on all of these demographic categories, except for education; the lower educated were somewhat under sampled, so to correct for this under sampling, the data were weighted by education.

Mass Media Use Questions: The three sets of questions related to media use and other activity that were asked of UCLA respondents in 2000 are shown in Part 1 of the Appendix. The first two sets of questions are “objective” or behavioral, asking about *hours per week using* 1) TV, radio and book and newspaper/magazine reading and 2) music, telephone, video games, exercise and sleep. The third set of questions is “subjective” attitudes, asking whether respondents felt the various media were important sources of information and entertainment, as shown in Part 2 of the Appendix.

MCA RESULTS

The MCA results related to these behavioral indicators are shown in Tables 1 and 2. Table 1 deals with mass media questions and Table 2 with other media and other activities. The MCA entries in Tables 1 and 2 are shown in relation to the mean or average value for the entire sample. Negative signs indicate below-average values, 0 indicates exactly average and no sign indicates above-average values. These averages are after control for the other predictors shown in the table, using the MCA procedure described above. Thus in column 1 and row 1 of Table 1, the average estimate for time spent with TV is 14.1 hours per week across the entire sample. In row 2 the entry of -4.1 indicates that respondents aged 18–24 spent 4 hours less than the average of 14.1 hours per week, or 10 hours (after MCA adjustment for the other predictors in Table 1); the -0.8 figure for those age 25–34 indicates that group spent about one hour less than the 14.1 hours, or 13.3 hours per week watching TV.

The correlations at the bottom of each set of figures show the degree of association between each background variable and the social variable identified to be in that column—first before and then after MCA adjustment. In the case of age, the original correlation was .20, and the MCA adjusted correlation is .19—both of which are statistically significant at the .05 level. However, these age differences are not completely “monotonic”, that is, they do not increase or decrease consistently with age, as noted below. An example of a more clearly monotonic relation is found for the next background variable in Table 1, namely education, which decreases from +1.2 (15.3 hours) for those with least years of school completed (no high school degree) to +1.1 (15.2 hours) for the next highest group of high school graduates to -0.5 (13.6 hours) for those with some college education to -2.1 (12 hours) for college graduates to -3.9 (10.2 hours) for the highest group of those with post-graduate education.

The main variable of interest, Internet use, is shown as the final set of row variables at the bottom of Tables 1 and 2. As discussed below, one clear example of monotonic differences for this variable appears for reading of books, which increases from 4 to 4.7 to 4.8 to 5.4 to 6.5 estimated hours per week among groups having increasing Internet use per week. For ordinal-or ratio-scale variables like age, education, income—and Internet use—this condition of monotonicity is an important criterion to judge whether the relationship as measured by the correlation coefficient *eta* is statistically significant—that is, beyond the usual 95 percent confidence level used in social science research. If the correlation is significant at that 95 percent level, it is noted with a “Sig”; if it is not significant, it is noted with an “NS.”

TABLE 1: DIFFERENCES IN YEAR 2000 UCLA MASS MEDIA BEHAVIORS BY DEMOGRAPHICS

	TV viewing	Radio time	Book reading	Newspaper/ magazine reading
TOTAL SAMPLE (n=1774)	14.1 Hours	8.2 Hours	5.0 Hours	3.8 Hours
Age				
18-24 (180)	-4.1	0.3	-2.2	-1.4
25-34 (441)	-0.8	0.1	-1.2	-1.2
35-44 (395)	-1.8	0.7	-0.8	-0.4
45-54 (363)	-0.5	-0.6	0.4	-0.2
55-64 (217)	3.7	-0.8	2.0	0.9
65-74 (270)	5.3	0.0	2.9	3.7
Correlation	.20 → .19 Sig	.05 → .09 Sig	.17 → .22Sig	.26 → .33 Sig
Education				
<High Schl. (165)	1.2	0.8	-1.2	-1.2
High Grad (687)	1.1	0.8	-0.9	-0.2
Some Coll (508)	-0.5	-0.1	0.7	0.2
Coll Grad (340)	-2.1	-1.2	1.2	0.3
Grad Schl (164)	-3.9	-1.5	0.3	0.6
Correlation	.17 → .13 Sig	.09 → .06 Sig	.11 → .12 Sig.	.10 → .10 Sig
Income				
\$0-14.9K (249)	2.8	1.0	1.6	0.4
\$15-49.9K (847)	-0.3	0.5	0.1	0.1
\$50-99.9K (484)	-1.0	-0.7	-0.9	-0.3
\$100K+ (139)	1.8	-3.0	-0.5	0.2
No Data (145)	-2.3	-2.4	-0.5	-0.6
Correlation	.10 → .05 NS	.10 → .07 NS	.10 → .11Sig	.04 → .05 NS
Marital Status				
Married (988)	-0.7	-0.5	-0.1	0.1
Divorced (207)	0.5	1.3	0.4	-0.7
Separated (40)	0.1	1.2	-0.2	-0.8
Widowed (168)	3.8	0.5	-0.2	0.5
Never Married (375)	0.5	0.7	0.3	0.4
Correlation	.13 → .08 Sig	.08 → .05 Sig	.12 → .03 NS	.10 → .08 NS.
Race				
White (1528)	0.0	0.0	-0.2	-0.2
Black (160)	3.0	2.0	1.8	1.8
Other (176)	-2.8	-0.2	-0.4	-0.2
Correlation	.09 → .09NS	.07 → .07 Sig	.10 → .08 Sig.	.12 → .12 Sig
Gender				
Men (513)	-0.9	0.8	-1.4	0.2
Women (717)	0.7	-0.6	1.1	-0.2
Correlation	.02 → .05 NS	.03 → .05 NS	.18 → .17Sig	.03 → .04 NS
Internet Use				
None (657)	1.1	0.2	-1.0	-0.4
0.1-1.9 Hrs. (245)	0.4	-0.7	-0.3	-0.3
2-4.9 Hrs (277)	-2.6	-0.7	-0.2	0.1
5-9.9 Hrs (265)	1.0	0.9	0.4	0.2
10+ Hrs (420)	-0.8	1.1	1.5	0.5
Correlation	.18 → .09 NS	.06 → .05 NS	.09 → .13 Sig	.07 → .08 NS
<i>Entries are MCA-adjusted deviations from the total sample mean. Correlations are for before and after MCA adjustment. Sig = Eta correlation significant at .05 level after MCA adjustment. NS = Not Significant</i>				

BEHAVIOR QUESTIONS

TV Use: In terms first of the behavioral indicators of mass media use in the UCLA study, row 1 of Table 1 shows that adult respondents in the 2000 UCLA national sample estimated that they spent an average of 14.1 hours a week in such contact with TV (respondent answers above 60 hours were recoded to 60 hours to reduce the effects of these outliers on the analysis). That 14-hour estimate is actually rather close to the 15-hour per week figure as reported in Robinson and Godbey's (1999) reports of TV time, as recorded in people's time diaries.

The second set of rows shows differences in this 14-hour average by age—ranging from about 10 hours for those aged 18–24 to 13 hours for those aged 25–34, and to 12 hours for those aged 35–44. The figure increases to 13.6 hours for those aged 45–54, and peaks at about 18 hours for those in the retirement ages of 55 and older. The range between 10 (ages 18-24) to 18 (ages 65+) hours after MCA adjustment is statistically significant—but this difference occurs for nearly adjacent age groups; moreover, it does not increase in a truly systematic (or monotonic) fashion from younger ages. Therefore, age may be a useful predictor of TV time, although not monotonically so.

In contrast, and as noted above, the next set of figures for education differences do consistently show progressive differences (here declines) with level of education (from 15 estimated hours for those with the least education to 10 hours for those with a graduate education). This five-hour range is also large enough to be statistically significant. Income differences, in contrast, are not significant after MCA adjustment, so income is not a reliable predictor. The next set of figures shows married people do estimate that they have less than average contact with TV, but mainly in relation to the 3.8 hour greater figure for widowed people (again after adjustment for their greater age). The estimated household viewing times for whites are 3 hours more than for "other" races, but almost 3 hours less than for blacks. Finally, the -0.7 hour less of viewing for women than men is not significant.

For the major variable of interest—Internet use time (see the bottom rows of Table 1)—the differences are insignificant, even though (the above predictors adjusted) nonusers do report the highest viewing time. It can be seen that the 13.3 hours of viewing time of heaviest users (10+ hours) is only about two hours less than for nonusers, with lowest household contact time (11.5 hours) for those who are intermediate users of the Internet. The biggest exception here is the above average viewing time of those who use the Internet 5-10 hours a week, so that Internet use overall is not a solid predictor.

Radio time: The estimated radio listening time of 8.2 hours is just over half of that for television in the first column. The relation of radio time with age is neither significant nor regular, with those aged 35-44 reporting most listening, and those 55-64 and older least, but the differences are only an hour and a half a week. Here, age is not a useful predictor. Estimated hours of radio time are lower among those with more education and income. Divorced and

separated people listen to the radio most, married people least. Blacks and males listen more than other races and females.

Moreover, no significant variation is found by extent of Internet usage, with the lower than average figure by low-moderate Internet users being about one and a half hours lower than for heavier users, rather than higher. As with TV contact time, then, these Internet use differences in time with radio are neither consistent nor significant.

Book reading: UCLA 2000 respondents were also asked about the time spent reading books, with the average being about 5 hours. On this question, older people estimated they read significantly more than did younger people, with those aged over age 65 estimating almost 8 hours vs. about 3 hours for those under age 25. Education differences were significant and positive, with college graduates reporting an hour more time than average and those with high school education or less about an hour less than average; higher income respondents reported less reading after MCA adjustment. Marital status differences were insignificant. The two-hour greater book reading time among blacks was statistically significant, as was the 2.5 hour greater reading times of women over men.

Hours of book reading increased significantly and monotonically the more a respondent used the Internet. Heaviest users reported 2.5 more hours than nonusers.

Newspaper/magazine reading: The estimated number of 3.8 hours of newspaper/magazine reading was slightly lower than the 5 hours of book reading. As with book reading, reading newspapers and magazines rose rather consistently with age, from 2.4 hours for those aged 18–24 to 7.5 hours for those over age 65. Similarly, periodical reading is higher among the college educated, although the correlations with education are lower than with age. The differences by income, marital status and gender are not significant, while blacks report reading more than whites or other races, as was the case for book reading.

Again, no significant differences are found by Internet use, although the relation is monotonic; heaviest users report reading 4.3 hours versus 3.4 hours for nonusers.

The analysis now turns to non-mass media and other activities.

Other media and other activities: The relationships between the non-mass media activities in Table 2 are generally lower than in Table 1 for the media activities for both Internet use and for the demographic predictors.

Music listening: Estimated music listening time was 5.2 hours, which is about 60% of estimated radio listening (8.2 hours), almost equal to estimated book reading time. Like radio time, music time was significantly and negatively correlated with age, except here the relation was monotonic as well, varying from 7.2 hours for those aged 18-24 and 3.7 for those aged 65 and older. The

relations with education, income, gender and marital status were generally insignificant, although married people reported an hour lower than average. Blacks estimated 7.4 hours of music listening compared to 4.9 hours for whites.

Listening was significantly higher the more one used the Internet. Heaviest users estimated using 7.1 hours, nonusers 4.4 hours and lightest users 3.9 hours, so the relation was not monotonic.

Telephone use: Estimated telephone use of 3.8 hours a week was the same as newspaper and magazine reading. Calling time decreased with age but not monotonically, with 18-24 year-olds reporting 50% more use than average. Usage was also significantly and negatively correlated with education, with high school dropouts reporting 6 hours compared to 2.7 hours for those with graduate school education. Income was unrelated to use, as was race, although blacks reported more use than whites. Non-married people estimated an hour more telephone time than married people, and women 2 more hours than men.

Although heaviest Internet users reported an hour's more use than average, Internet use was not related consistently to telephone use.

Video games: While video game use was higher among younger people, as expected, the relation was not significant after MCA adjustment. Game-playing time was unrelated to education, income, marital status and race, but was almost five times higher among men (1.4 hours) than women (0.3 hours).

Video game playing was also four times as high among heaviest Internet users (1.3 hours) as nonusers (.3 hours) and among lighter users, possibly indicating this being one of the major uses of the Internet.

Exercise: Respondents estimated 4.5 hours of weekly exercise, which was not related significantly with age, nor with income nor race. Graduate school educated respondents estimated 2.5 more hours than those who had not finished high school. Never-married respondents reported an hour more exercise than average, and married and divorced persons below average. Men estimated about an hour more than women.

Exercise was unrelated to Internet use time.

Sleep: Estimated sleep time was 6.7 hours per day, more than an hour lower than reported in time diaries (Robinson and Godbey 1999). Estimated sleep time after MCA adjustment was unrelated to any of the demographic factors.

Sleep was also unrelated to Internet use.

TABLE 2: DIFFERENCES IN OTHER MEDIA AND ACTIVITIES BY DEMOGRAPHIC FACTORS AND INTERNET USE (IN ESTIMATED HOURS PER WEEK)

	Music	Telephone	Video games	Exercise	Sleep
TOTAL SAMPLE (n=1774)	5.2 Hours	3.8 Hours	0.8 Hours	4.5 Hours	6.7 Hours
Age					
18-24 (180)	2.0	2.1	0.6	0.2	0.2
25-34 (441)	0.7	0.5	0.4	-0.5	-0.1
35-44 (395)	-0.2	0.1	0.1	-0.4	-0.1
45-54 (363)	-0.1	-1.1	-0.5	0.2	0.0
55-64 (217)	-1.1	-0.7	-0.1	-0.2	0.1
65-74 (270)	-1.5	-0.4	-0.5	1.5	0.2
Correlation	.13 → .10 Sig	.15 → .12 Sig	.10 → .08 NS	.11 → .09 NS	.08 → .09 NS
Education					
HighS Inc. (165)	-1.3	2.2	-0.6	-1.3	0.2
High Grad (687)	-0.2	0.3	0.2	-0.4	-0.1
Some Coll (508)	1.1	-0.4	0.3	0.3	-0.1
Coll Grad (340)	-0.5	-0.4	-0.3	0.3	0.1
Grad Schl (164)	-0.7	-1.1	-0.4	1.2	0.1
Correlation	.09 → .08 NS	.12 → .11 Sig	.07 → .06 Sig.	.07 → .10 Sig	.07 → .08 NS
Income					
\$0-14.9K (249)	0.5	0.0	0.8	0.8	0.1
\$15-49.9K (847)	0.3	-0.1	0.1	0.0	0.0
\$50-99.9K (484)	-0.7	0.0	-0.4	-0.7	0.0
\$100K+ (139)	-0.3	0.0	0.3	0.9	0.0
No Data (145)	-0.1	1.5	-0.3	0.2	0.0
Correlation	.07 → .04 NS	.11 → .03 NS	.06 → .08 NS	.08 → .08 NS	.02 → .03 NS
Marital Status					
Married (988)	-1.0	-0.6	-0.1	-0.4	0.1
Divorced (207)	-0.2	0.4	-0.3	-0.8	-0.1
Separated (40)	4.1	1.5	0.3	0.0	-0.4
Widowed (168)	-0.1	0.8	-0.1	0.4	0.1
Never Married (375)	0.7	0.5	0.1	1.1	0.0
Correlation	.16 → .15 Sig	.15 → .11 Sig	.08 → .04 NS	.11 → .09 Sig.	.10 → .12 NS
Race					
White (1528)	-0.3	-0.1	0.1	0.0	0.0
Black (160)	2.2	1.3	0.1	-0.4	-0.1
Other (176)	0.3	-0.7	0.6	0.3	-0.1
Correlation	.11 → .07 NS	.10 → .06 NS	.03 → .04 NS	.04 → .04 NS	.06 → .05 NS
Gender					
Men (513)	0.4	-1.0	0.6	0.6	0.0
Women (717)	-0.3	.8	-0.5	-0.5	0.0
Correlation	.02 → .04 NS	.14 → .13 NS	.10 → .10 Sig	.08 → .04 NS	.01 → .01 NS
Internet Use					
None (657)	-0.8	-0.1	-0.5	0.2	0.1
0.1-1.9 Hrs (245)	-1.3	-0.2	-0.3	-0.7	0.1
2-4.9 Hrs (277)	-0.4	-1.0	-0.2	0.1	-0.1
5-9.9 Hrs (265)	0.5	-0.2	0.5	0.0	0.0
10+ Hrs (420)	1.9	1.0	0.5	0.0	-0.2
Correlation	.13 → .11 Sig	.09 → .09 Sig	.09 → .10 Sig	.05 → .05 NS	.08 → .08 NS

Entries are MCA-adjusted deviations from the total sample mean. Correlations are for before and after MCA adjustment. Sig = Eta correlation significant at .05 level after MCA adjustment.
NS = Not Significant

IN SUMMARY

Not one of the nine media and non-media behaviors shown in Tables 1 and 2 is statistically significantly related to *lower* Internet use. Moreover, of the differences that are found, there are five on which Internet users are *more* active than nonusers or lighter users and three significantly so, namely book reading, music listening and video-game playing. Thus, the simple initial bivariate conclusion of differences between Internet users and nonusers (or between heavy vs. light users) in the earlier UCLA reports of bivariate results continues to hold after more intensive statistical analyses are performed—much as characterized the earlier conclusions about sociability (Cole and Robinson 2002).

ATTITUDES ABOUT MEDIA IMPORTANCE

The UCLA survey also included a number of attitude questions related to how important various media were to respondents as sources of information and entertainment. Ratings were on a 1-5 scale, with 5 being most important. These questions are shown in Section 2 of Appendix A for year 2000.

Table 3 shows the average ratings on this scale for each medium, broken down again by how many hours a week respondents estimated they used the Internet. The overall ratings at the end of each row show that books and family/friends were rated highest (4.0) as media for information, with organizations and magazines lowest (3.2). For entertainment, family/friends rated highest (4.2) followed by TV (3.8) and books (3.7), with newspapers (2.7) and the Internet (2.5) at the bottom—although that rating would be closer to 3.0, if Internet nonusers were excluded. Indeed, extent of use is the major predictor of how important the Internet is viewed as a source.

Breakouts of these ratings by Internet use for the other media and purposes shows only five ratings that vary significantly by how much use is made of the Internet, and of these only one concerns entertainment, with heavier Internet users rating church and clubs as less important than nonusers. As information sources, nonusers also rate TV, radio, family/friends, churches and clubs significantly higher than heaviest users of the Internet. These differences hold up after adjustment for the demographic factors in Tables 1 and 2.

Two main conclusions emerge from the data in Table 3. One is that Internet users rate print sources to be as important as do nonusers, despite their significantly greater reliance on the Internet for information. Secondly, Internet users differ hardly at all in the importance they attach to these media as entertainment sources. In general, it is also important that heavier users also rate the Internet as their most important source of information, but less important as a source of entertainment.

TABLE 3: IMPORTANCE OF MEDIA FOR INFORMATION AND ENTERTAINMENT BY INTERNET USAGE (ON A SCALE FROM 1= NOT IMPORTANT TO 5= EXTREMELY IMPORTANT)

	Nonusers	0-2 Hours	3-5 Hrs	5-10 Hrs	10+ Hrs	TOTAL
Information:						
Books	3.9	3.3	4.1	4.1	4.0	4.0
TV	3.9	3.6	3.6	3.6	3.4	3.7
Radio	3.6	3.4	3.4	3.4	3.3	3.4
Newspaper	3.9	3.7	3.9	4.0	3.8	3.9
Magazines	3.2	3.2	3.3	3.4	3.3	3.2
Church/clubs	3.5	3.2	3.1	3.1	2.8	3.2
Family/friends	4.2	4.0	3.9	3.8	3.7	4.0
Internet	2.4	3.4	3.6	3.9	4.3	3.4
Entertainment:						
Books	3.5	3.6	3.8	3.6	3.7	3.7
TV	3.9	3.7	3.7	3.9	3.7	3.8
Radio	3.5	3.6	3.6	3.5	3.4	3.5
Newspaper	2.7	2.6	2.6	2.8	2.5	2.7
Magazines	2.9	3.0	3.0	3.1	3.1	3.0
Church/club	3.4	3.1	3.1	3.1	2.9	3.1
Family/friend	4.2	4.2	4.2	4.2	4.2	4.2
Internet	1.9	2.3	2.6	3.0	3.3	2.5

CONCLUSION

In this multivariate analysis, there is little consistent evidence tying Internet use with lower usage of other media behavior. This is consistent with earlier conclusions in UCLA reports with results on only bivariate relations.

Overall, however, there is considerable evidence that Internet users are more active in many ways (reading, radio and music listening and video game playing) than nonusers, even if activity does not increase consistently among heavier Internet users. This media use may be done as secondary activity “multi-tasking” while on the Internet, or may itself be the focus of that use.

The overall pattern with TV use does follow the expected “trade-off” or “zero-sum” model, but the initial 5-hour difference is reduced to an insignificant 1.5 hours after MCA adjustment for other predictors. That finding makes it more difficult to argue that Internet usage might somehow influence users to be more active and interactive, but it clearly suggests little relation between usage and inactive tendencies. Together with the lack of behavioral evidence, then, these re-analyses of the UCLA data provide scant support for the negative consequences of Internet usage that have been alleged.

REFERENCES

- Andrews, F., Morgan, J. and Sonquist, J. 1973. *Multiple Classification Analysis*. Ann Arbor, MI: Institute for Social Research.
- Cole J. and Robinson J. 2002. Internet Use and Sociability in the UCLA Data: A Simplified MCA Analysis. *IT & Society* 1, p. 202-218.

APPENDIX
UCLA MEDIA USE AND OTHER ACTIVITY QUESTIONS—2000

1. Behavior Questions (Tables 1 and 2)

[Ask All]

7a. [[former 76]]*[E: MEDIA USE] During a typical week, about how many minutes or hours of your leisure time, if any, do you spend with... **[READ EACH. RECORD # HOIJSR OR # MINUTES OF HOURS ENTER NUMBER or DK, NA,**

Relused - **ROTATE STATEMENTS]**

**HOURS
MINUTES**

- a. Books **(NOT ONLINE)**
- b. Video games **(NOT ONLINE)**
- c. Recorded music, such as CDs, tapes, and MP3 files **(NOT ONLINE)**
- d. Newspapers and magazines **(NOT ONLINE)**
- e. Radio **(NOT ONLINE)**
- f. Telephone **(NOT ONLINE)**
- g. Television **(NOT ONLINE)**

74. [E: ACTIVITY DISPLACEMENT] During a typical night, how many hours do you sleep? ___ **IREC # or DK, NA, Refused]**

75 • **[- ACTIVITY DISPLACEMENT] How many minutes or hours a week, if any, do you exercise and/or participate in sports? **[RECORD # HOURS or MINUTES or DK, NA, Refused]**

2. Attitude/Importance Questions (Table 3)

18. **[E: INFO SOURCE] How important are the following as sources of information and entertainment to you? Use a scale of 1 to 5 where 1 means not important at all, 5 means extremely important, and 3 means moderately important. **IENTER or DK, NA, Refused - ROTATE STATEMENTS, ROTATE ORDER OF INFO AND ENTERTAINMENT PER RESPONDENT]**

How important to you is (are):

A	The Internet for information	1	2	3	4	5	DK	RF
	The Internet for entertainment	1	2	3	4	5	6	7
B	Books (NOT ONLINE) for information	1	2	3	4	5	6	7
	Books (NOT ONLINE) for entertainment	1	2	3	4	5	6	7
C	Television (NOT ONLINE) for information	1	2	3	4	5	6	7
	Television (NOT ONLINE) for entertainment	1	2	3	4	5	6	7
D	Radio (NOT ONLINE) for information	1	2	3	4	5	6	7

	Radio (NOT ONLINE) for entertainment	1	2	3	4	5	6	7
E	Newspapers (NOT ONLINE) for information	1	2	3	4	5	6	7
	Newspapers (NOT ONLINE) for entertainment	1	2	3	4	5	6	7
F	Magazines (NOT ONLINE) for information	1	2	3	4	5	6	7
	Magazines (NOT ONLINE) for entertainment	1	2	3	4	5	6	7
G	Clubs and Church groups (NOT ONLINE) for information	1	2	3	4	5	6	7
	Clubs and Church groups (NOT ONLINE) for entertainment	1	2	3	4	5	6	7
H	Friends/family (NOT ONLINE) for information	1	2	3	4	5	6	7
	Friends/family (NOT ONLINE) for entertainment	1	2	3	4	5	6	7