

# Value Differences In the Age of the Internet

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## **Part I**

In 2003, the Napster craze was in full swing and the Recording Industry Association of America was beginning prosecution of individual kids who downloaded music. It seemed that there was an article about it in the *New York Times* almost daily. The Internet was giving rise to changes in behavior that could not be anticipated. I felt we were living through a type of revolution, a sea change in behavior and lifestyle not seen since the Industrial Revolution. Reading these articles almost daily made it clear that large segments of the population felt that this illegal activity was justified and the law was wrong. The controversy led me to think of the greater question: had this society-changing, world-shrinking, idea-enhancing phenomenon called the Internet changed peoples perceptions of right and wrong? Specifically, had this one behavior, sharing music with others, changed the way people felt about laws in general? I knew that I had found my topic.

It was in the previous year that I had first started my search for a mentor. Stony Brook University is approximately ten miles from where I live, and this seemed the obvious place to start. I sent letters to numerous professors. This was to be my first contact with Distinguished Teaching Professor Judith Tanur of the Department of Sociology. We set up a meeting, during which she told me that she would mentor me but not teach me, she would keep me on track, but not hold my hand, and if I wanted her mentorship I should come back with a topic.

While I was not sure if I wanted a physical or social science project, I knew that I wanted to do something completely on my own: my design, my implementation, and my analysis. I did not want to piggyback on a working project, or even work on an independent aspect of an already defined and funded endeavor. I wanted to learn something that nobody else knew; I wanted to be the first to discover something.

As time went on, it became clear that I was leaning towards some sort of social science project. I knew I would be working on my research for several years and it was of paramount importance to work on something that interested me. Professor Tanur was exactly the type of mentor I was looking for, and I am proud to say that after three years we have a personal relationship and friendship. Of course I was extremely tense during our initial meetings, but it quickly became evident that she was treating me as she would a graduate research student, not a college student, and certainly not the high school neophyte I was.

I knew that there would be two parts to this project – science and math. At the beginning, they seemed to be two separate components. Before even beginning to design my research project, I spent months in the University library reading journal articles and learning about the tools available to help me. While I was conducting research in un-chartered waters, I was able to find related studies, and spent many hours learning about the General Social Survey (GSS) and how to incorporate these questions into the survey instrument I was designing. I met with Professor Tanur almost weekly, but I did the project on my own. She pointed me in the right direction, allowed me to use her name when contacting other researchers, and suggested certain readings. We met more frequently during the design process, and once the surveys were conducted my focus entirely changed. It was now time to leave science mode and enter mathematics mode.

I now had to learn how to analyze the data. This was to be a daunting task, as I was leaving my comfort zone in science and entering the mathematical world. To start, Professor Tanur loaned me a college statistics textbook and told me go home, read it, learn it. With the help of many e-mails, I accomplished that task. I then purchased the Minitab statistical computer program and spent numerous hours learning how to use it. This would be the software I would use to do the majority of my analyses.

When my actual data began to filter in I was ready to enter it and begin my analysis. It is difficult to describe the moment I finished entering the data into my spreadsheet. I was ready to begin my actual analysis, the years of learning and work were about to payoff, and I was on the threshold of discovery. I would be able to begin to understand the effect of the Internet on people's values and perceptions of legality.

While I think of my study as composed of two parts, the science and the math, there is clearly no dividing line, no place where one ends and the other begins. Science and mathematics are so intertwined that they are almost synonymous. I was fortunate to be able to apply science and math to a topic I was interested in, and one that is clearly relevant to present day society.

Looking back, I can honestly say that I do not know how I was able to do it all in addition to my schoolwork and other activities. I can also say that it was by far the best learning experience I have ever had, and I learned more about myself from this endeavor than I thought possible. I went into this not fully understanding how much I would have to learn, both as a scientist and a mathematician. The learning curve was steep, sometimes extremely arduous, but always rewarding. My advice would be to never let roadblocks steer you off your path – each is only one obstacle to overcome. I knew that I had a lot to learn, even more so if I wanted my work to be considered serious by scientists. In many ways this was what kept me reaching for more, to spend the hours reading journals and learning higher-level mathematics; I wanted to be taken seriously. I would unequivocally recommend this type of project to anyone who wants to challenge himself or herself to learn more science and math than s/he thinks possible, to anyone who can work independently, and to anyone who has an insatiable thirst to learn something new, to feel the unbelievable thrill of discovery. My most important advice is that you need to find something you can be committed, connected, and passionate towards - in many ways research is more an affair of the heart than of the brain.

## **Part II**

*Middle schoolers, their parents, and their grandparents completed a 14 question survey designed to gather information about their demographics, beliefs towards obeying the law, perceptions of the internet, and views on downloading music. Responses to various questions were compared between the three generations as well as to similar studies and to identical questions administered by the General Social Survey (GSS) in 1985, 1990, and 1996. Differing judgments were found among the generations. Divisions were also found within each generation between high and low computer users.*

### **Introduction**

Technological advancements, such as the internet, have not only introduced innovative ideas, but have perhaps invited people to question, and even alter, their old perceptions, values, and moral codes. These perceptions, these values of what is right and wrong, are in part shaped by a person's surroundings.

The personal computer/internet brings with it new luxuries, such as music downloading and CD copying. This topic, a heavily debated area, has caused much havoc recently, as people try to balance this new technology with their interpretation of the law (*New York Times*, Sept. 19, 2003). Seemingly, one could pick up almost any metropolitan newspaper and find a story concerning music downloading. Some feel that they should have the right to download and/or copy music, despite it being copyright protected. Others argue that the theft of intellectual property is theft, and that the rules of legality must be obeyed. What is clear is that, despite copyright protection, despite legal obstacles, and despite record company-instigated lawsuits, illegal music downloading is done daily and on a very large scale. New technologies of the late 20<sup>th</sup> and early 21<sup>st</sup> century, such as the internet, have set into motion difficult decisions for many people, in particular, teenagers. They have presented new moral choices and tested conventional

responsibilities (Porter, 1965). With this internet usage, have people's values about cheating and stealing eroded? Do generational differences exist today? Is there a change in people's values today as compared to pre-internet?

It is difficult to untangle the effects of the internet from other occurrences. One step in doing so is to explore theories of development. According to Lawrence Kohlberg (1969)(expanding on the theory of Jean Piaget, 1926, who said that children went through stages of development), children go through three levels (six stages) of moral development. The first level is preconventional morality, then conventional morality, and finally postconventional morality. Kohlberg suggested that the first level generally encompasses elementary-school aged children who behave according to what an authority figure tells them to do (Barger 2000). Adolescents or teens, usually found in the conventional morality level, see morality as more than simple ideas (Crain, 1985). People in this stage do what they think will be socially acceptable and approved by others, as well as what they believe is abiding by the law (Barger 2000). It is in the postconventional stage that people have the ability to consider more abstract ethical ideas (Andersen 2004).

People's actions act as a language for the expression of their values. Thus, values are expressed through action. Albert Borgmann's (Borgmann, 1984) concept of the "device paradigm" can be used to illustrate how technology has had such an impact on the expression of values. According to Borgmann, a device is something that makes a single commodity vastly accessible. Therefore, devices, such as a computer, decrease actions that a person must engage in (Tatum, 1994). Technology may alter, or even completely transform, a person's values.

In 1923, a study (Brogan) was conducted which asked college-aged participants, as well as members of the nearby home community, to rank what they felt to be "the worst" practices for a person to engage in. Among the top few were stealing, cheating, and lying.

The actions, and the ranking scale used for the last question in this survey are taken from a 1973 study: “Value Differences Across Three Generations” (Payne, Summers, Stewart). Each question includes a description of an action and asks participants to rank “how badly” they would feel if they were to engage in the described action, on a scale from (1) “not at all bad” to (7) “extremely bad.” Overall, the study concluded that, for the most part, students were less severe in judgments than were parents, who were less severe than grandparents. However, generational differences varied according to each action/behavior being judged.

The CASS Internet Report 2003 “Surveying Internet Usage and Impact in Twelve Chinese Cities” was conducted in China (Liang) to investigate internet usage and its impact. A main area of focus was the perceptions people have of the internet. Some questions from that survey are included in the survey undertaken in this research.

The General Social Survey (GSS), both online and published, contains questions asked over a number of years. OBEYLAW, a GSS question, asked the respondent about his/her belief towards always obeying the law even when there are certain circumstances in which one would rather follow his/her conscience (see *General Social Survey Codebook*, Davis & Smith, 1990). Using data from the GSS allows responses given by participants in this study to be compared with responses to identical questions administered in 1985, 1990, and 1996.

## Methods

*Questionnaire.* The survey consisted of 14 questions, many with numerous parts. Questions requested demographic information about respondents, as well as their beliefs towards obeying the law, towards music downloading and music sharing.

*Respondents.* Respondents consisted of seventh grade students, their parents, and their grandparents. Students were recruited from Hauppauge Middle School in Hauppauge, New York.

After the research was approved by the Committee of Research Involving Human Subjects (CORIHS) at SUNY Stony Brook, meetings were held with administrators at the school. A copy of the seventh grade roster was obtained and a letter mailed to every student's parent or guardian. It gave information about the study and requested the parent/guardian's consent for his/her child to participate. Those who gave consent were asked to fill out a form with the names and addresses of all living parents and grandparents. The addresses of parents and grandparents were used to send survey forms to the relatives of students who responded to the survey. Code numbers, which were later removed to preserve confidentiality, were used to match students' survey with those from the other generations in the family.

## Results

The results have been broken down into four sections.

### **Section A: Demographics**

The 52 student respondents were 12, 13 or 14 years of age. Twenty-five were male and 27 female. The parent generation ranged in age from 32 to 57, with a mean of 36 years. Of the 59 parents who returned the survey, 24 were male and 35 female. Fifty-six grandparents returned the survey. Nineteen were male and 35 female. Grandparents ranged in age from 50 years to 83 years, with a mean of 72 years. Two of the grandparents did not indicate their age or gender.

Throughout the remainder of this paper, responses from this study will be referred to by the acronym VDAI – Value Differences in the Age of the Internet.

### **Section B: Do generational differences exist today?**

In question 10, respondents were asked, "Do you think it's okay to use file-sharing software to download a musical sound recording onto your own computer, without paying for it?" As seen in Table 1, 73% of all middle schoolers, 46% of *responding* parents, and 16% of *responding* grandparents answered yes to this question. Children were far less severe in their

answers than were parents, who were less severe than grandparents. Table 1 also shows that, whether the calculations were based on all respondents or only on those answering the given question, the linear pattern remains.

**Table 1**

% Saying OK to Download Without Paying by Generation

	Children	Parents	Grandparents
% of those answering	73.08% (52)	45.61% (57)	15.91% (44)
% of all responses	73.08% (52)	44.07% (59)	12.50% (56)

**Table 2**

Download Questions by Generation  
In Cells - % Saying "Yes"

	Middle Schoolers	Parents	Grandparents
Download Music After Paying	87% (52)	89% (57)	74% (43)
Sharing Music	60% (52)	55% (58)	36% (42)
Downloading a Written Paper	10% (52)	7% (59)	13% (47)

Cross tabulations also investigated the percent of each generation approving of downloading music after paying for it, sharing music, and downloading a written paper, as shown in Table 2. The only real generational differences found is that lower percentages of the grandparent generation, as compared to the parent and middle school generations, thought it was okay to download music after paying for it and to share it. This may be a result of lesser familiarity with internet usage.

Question 6, which was included because it replicated one of the GSS, asked subjects, "In general, would you say that people should obey the law without exception, or are there exceptional occasions on which people should follow their consciences even if that means breaking the law?" Sixty-seven percent of all responding middle schoolers, 55% of all responding parents, and 76% of all responding grandparents believed the law should always be obeyed.

Because the lowest age on the GSS is 18, and the age range for middle schoolers is 12-14, the data obtained by responses from the middle schoolers were not comparable to those of any respondents to the GSS. As evidenced by Table 3, the respondents in this study were much more likely to say one should always obey a law than those responding to the GSS in 1985, 1990, as well as 1996. In all cases, the grandparent group is more likely to obey than the parent generation.

The middle schoolers seem to be an anomaly, with their results consistent with the stage of conventional morality.

An analysis of variance was carried out for responses to each of the 11 behaviors described in question 14 as asked by Payne et al. (1973). The results are shown in Table 4. For 9 of the 11 cases, middle schoolers say they would feel least bad (that is, have the lowest mean scores on a scale from 1=not at all bad to 7=extremely bad). It is unclear if this result is generational and perhaps an effect of the internet, or if the middle schoolers have not yet fully developed a moral sense.

**Table 3**  
OBEYLAW by Generation  
In cells = % that always obey

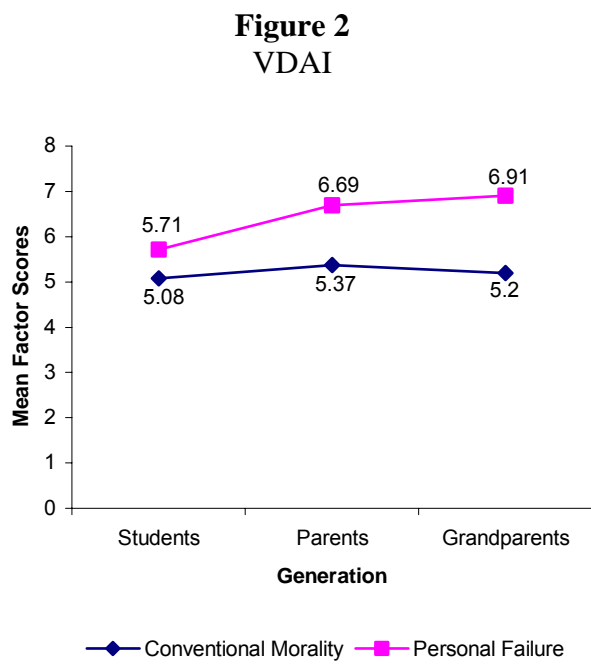
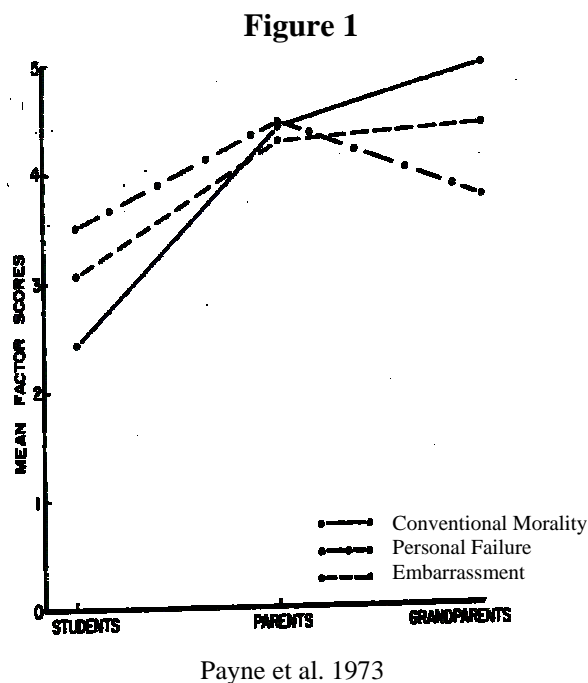
	Students	Parents	Grandparents
Age		32-57	50 +
VDAI	67.3 % (52)	55.2% (58)	75.5% (53)
GSS		30-59	60 +
1985		40.9% (330)	52.6% (171)
1990		38.7% (592)	56.5% (283)
1996		46.0% (665)	54.3% (232)

**Table 4**  
Analysis of Variance (ANOVA) for Q14 by Generation  
Mean

	Middle Schoolers	Parents	Grandparents	P	
Violate unjust law	4.9	4.3	5.4	.04	P≠GP
Steal from friend	6.1	6.9	7.0	<.001	MS ≠ P, GP
Supplies from work	4.0	5.3	6.1	<.001	MS ≠ P, GP
Cheat - not caught	5.4	6.3	6.8	<.001	MS ≠ P, GP
Cheat - getting caught	6.2	6.6	6.9	.007	MS ≠ GP
Violate nec. Laws	5.6	5.5	6.3	.067	
Lying for job	5.6	5.5	6.3	.001	MS, P ≠ GP
Violating law don't agree	4.8	4.9	6.0	<.001	MS, P ≠ GP
Cheat income tax	5.3	5.3	6.3	.005	MS, P ≠ GP
Dump trash	5.2	6.6	6.9	<.001	MS ≠ P, GP
Read mail	5.4	6.6	6.9	<.001	MS< P, GP

**Section C: Do people differ today from before the internet?**

Since the detailed baseline data from Payne et al. (1973) could not be obtained, despite repeated attempts, this question can be answered only approximately. The current study includes 11 statements of behavior used by Payne et al. (1973). The overall pattern of responses from this study was compared to the graph in Payne et al. (1973). The ordinal scale used in this question was treated as quantitative in order to compute the means and gather them into factors.



In both studies, as well as for both factors, students displayed the lowest mean factor score as compared to the other two generations. Perhaps these age differences persisting over generations point to a developmental explanation. It appears that the pattern of responses given by the parents and grandparents, as compared to the other generations, reversed. As supported by Figure 1, in Payne et al. (1973), grandparents did not feel as bad as parents did if they were to engage in behaviors categorized as “personal failure,” (lower mean score) yet the oldest generation felt worse than the parents (higher mean) concerning behaviors in the “conventional morality” category. Payne et al. (1973) found that grandparents would feel the worst if they were to engage in actions that fall in the “conventional morality” category. However, in this study, as evidenced by Figure 2, the opposite was found. Responses obtained from grandparents had a slightly higher mean than the responses from parents in the “personal failure” category, and a lower mean than the parents for actions concerning “conventional morality.” In this study it was found that grandparents would feel the worst if they were to engage in actions of “personal failure.” It must be kept in mind that the numerous additional behaviors categorized under the headings of

“conventional morality” and “personal failure” by Payne et al. (1973) had bearing on the final results of that study, but could not be found and hence not be included in the present study.

Another question to be considered is, “Are there overall differences between today and before the internet became so widespread?”

The only data gathered that could possibly sustain an answer is shown for the OBEYLAW question in Table 3 for the years of 1985, 1990, and 1996. There does not appear to be any noticeable difference during this time span.

**Section D: Are Any of the Results Conditioned by Religiosity, Computer Usage, or Perception of the Internet?**

The first area to be addressed is religiosity. The relation between OBEYLAW and ATTEND, a measure of how often respondents attend religious services, was investigated. There was no consistent pattern found between how often a person attends religious services and their answer to the OBEYLAW question in either VDAI or the GSS.

ATTEND asked respondents to state how often they attended religious services, and RELPERSN requested information about how religious each respondent perceives him/herself. From Table 5, we see that there is a strong relationship for the VDAI data

**Table 5**  
OBEYLAW by RELPERSN  
In cells - % that always obey of respondents that answered

	Not Religious At All	Slightly Religious	Moderately Religious	Very Religious
VDAI 2004	18.18% (11)	61.22% (49)	70.24% (84)	83.33% (18)

between OBEYLAW and the self-label of religiosity (with those rating themselves more religious more likely to say one should always obey) despite the lack of relationship shown with the behavioral measure (ATTEND).

The relationship between each of the other value variables and ATTEND, as well as RELPERSN, was examined. No strong relationship was found between any of the value variables and ATTEND or RELPERSN (except for OBEYLAW as shown in Table 5).

In order to look at the relationship between the value variables and RELPERSN and ATTEND separately by generation, both religiosity variables were dichotomized. For RELPERSN, responses of “Not Religious At All” and “Slightly Religious” are categorized as “self-described not religious” and responses of “Moderately Religious” and “Very Religious” as “self-described religious.”

ATTEND was dichotomized into “frequently attends” and “does not frequently attend.” Included in the “frequently attends” category were the responses of “Once a Month,” through “Several Times a Week” and “does not frequently

attend” included “Never” through “Several Times a Year.” Each of the value variables was cross-tabulated with the dichotomized form of RELPERSN. The only interesting finding is show in Table 6, which displays the OBEYLAW variable by RELPERSN for each generation. For each generation, the more self-described religious participants were, the more likely they were to endorse OBEYLAW. This result strongly parallels the results of Table 5 for the parents and grandparents, but shows only a weak relationship between self-described religiosity and OBEYLAW for the middle schoolers. ATTEND was also cross tabulated with each of the value variables. For all the value variables except OBEYLAW and Download After Paying, attendance at religious service worked as one would expect. Less frequent attendees were more likely to approve of downloading music without paying for it, sharing music, and downloading a paper, with the relationship holding equally strongly across generations. For OBEYLAW, however, parents and grandparents who frequently attend were slightly more likely to say they would always obey, while it was infrequently attending middle schoolers who were more likely to always obey. A similar, but less strong pattern holds for Download After Paying.

**Table 6**  
RELPERSN (Dichotomized)

OBEYLAW (% always obey)

	Self-Described Not Religious	Self-Described Religious
Middle Schoolers	65.2% (23)	69% (29)
Parents	34.8% (23)	67.7% (34)
Grandparents	64.3% (14)	79.5% (39)

In order to try to understand these differences, the relationship between the two measures of religiosity was explored. Middle schoolers attend religious services much more than their parents, and even their grandparents, yet consider themselves far less religious. Although 67% of the middle schoolers attend religious services at least once a month, only 56% view themselves as moderately or very religious. As can be seen

from Tables 7 and 8, the members of the other generations are more likely to consider themselves religious than to attend frequently.

Table 9, separately by generation, relates the variables RELPERSN and ATTEND, both dichotomized. Considering oneself a religious person is an excellent predictor of attendance at religious services in the grandparent generation (51 percentage point difference), a good one for the parent generation (42 percentage point difference), but only a fair one for the middle

school generation (35 percentage point difference). Attendance for the middle-school generation may not be a good measure of religiosity because it may be imposed by parents. It must also be kept in mind that, as seventh graders, many of these middle schoolers may be preparing for significant religious events such as Conformations or Bar/Bat Mitzvahs and may thus be spending a particularly large and atypical amount of time on their religious studies.

The second area to address is computer usage. The data in Table 10 was obtained from a question that asked respondents “For about how many **minutes** or **hours** a week do you use a computer?” All responses were recoded into minutes and the mean times for each generation for

**Table 7**

RELPERSN by Generation

	Middle Schoolers	Parents	Grandparents
Self-Described Religious	55.8% (52)	58.6% (58)	73.2% (56)

**Table 8**

ATTEND by Generation

	Middle Schoolers	Parents	Grandparents
Frequently Attends	67.3% (52)	40.7% (59)	37.5% (56)

**Table 9**

Relationship Between RELPERSN and ATTEND By Generation

Frequently Attends	Self-Described Not Religious	Self-Described Religious
Middle Schoolers	47.83% (23)	82.86% (29)
Parents	16.67% (24)	58.82% (34)
Grandparents	0% (15)	51.22% (41)

each activity were calculated. As evidenced in Table 10, parents spend the most time on the computer compared to the other two generations. However, the majority of this time is spent performing paid work. If this paid work were not factored in, parents would spend an average of 407 minutes per week on the computer. This is considerably less than the average for the middle schoolers. Compared to the other generations, middle schoolers spend considerably more time on the computer exchanging e-mail and playing games. With the exceptions of shopping/paying bills and paid work, middle schoolers spend more time engaged in each activity than either their parents or grandparents.

**Table 10**  
Mean Time (In Minutes) Spent on the Computer Every Week

Generation	Games	Shop and Bills	Paid Work	E-Mail	Online (not e-mail)	Total time
Middle Schoolers	171.25	16.77	6.92	218.19	193.17	606.31
Parents	50.34	30.08	555.36	173.22	155.0	962.0
Grandparents	104.11	29.91	85.18	120.36	149.64	489.2

The differences in values seen in previous sections may be generational (due only to the passage of time), computer-mediated, or developmental. To explore whether computer mediation seemed tenable, each generation was divided into two groups (at approximately the 50% mark) in order to track computer usage. The middle schoolers were dichotomized into high and low computer users at 440 minutes (7.3 hours), parents at 323 minutes (5.4 hours), and grandparents at 180 minutes (3 hours).

High computer users in the middle school generation, as evidenced by Table 11, were more inclined to say it is okay to download music without paying compared to low users (20 percentage point difference). This does not hold true for the other two generations. Compared to low users, high computer users in the parent generation were more inclined to say that it is NOT okay to download music without paying (19 percentage points difference). High and low users in the

grandparent generation had almost identical opinions. There is a downward linear pattern among high users and low users across generations.

As evidenced by Table 11, high computer users in the middle school generation are more likely to think one should always obey the law (17 percentage points difference between high and low users). On the other hand, high computer users in the parent generation believe that one should follow his/her conscience on issues concerning the law (17 percentage point difference between low and high users). The pattern for the grandparents was in the same direction as the parents, but less strong.

Compared to low computer users, high computer users in the middle school generation felt that it is NOT okay to share music (13 percentage point difference between low and high users).

However, high users in the grandparent generation, shown in Table 11, were more likely to say that it is okay to share music (13 percentage points

difference between high and low users). Respondents in the parent generation had similar beliefs regardless of their computer usage.

Responses to the variables of download paper and pay to download music were approximately the same among high and low computer users in the middle school generation and among parents. High users in the grandparent generation, compared to low users, were more likely

**Table 11**

Okay to Download Music Without Paying By Generation & Computer Usage

	Middle Schoolers	Parents	Grandparents
High Usage	82% (28)	36% (28)	15% (26)
Low Usage	62% (24)	55% (29)	18% (17)

Always Obey Law By Generation & Computer Usage

	Middle Schoolers	Parents	Grandparents
High Users	75% (28)	47% (30)	70% (27)
Low Users	58% (24)	64% (28)	80% (25)

Okay to Share Music By Generation & Computer Usage

	Middle Schoolers	Parents	Grandparents
High Users	54% (28)	57% (30)	42% (24)
Low Users	67% (24)	54% (28)	29% (17)

Okay to Pay to Download Music By Generation & Computer Usage

	Middle Schoolers	Parents	Grandparents
High Users	86% (28)	86% (29)	63% (24)
Low Users	88% (24)	93% (28)	89% (18)

Okay to Download Paper By Generation & Computer Usage

	Middle Schoolers	Parents	Grandparents
High Users	11% (28)	3% (30)	15% (27)
Low Users	8% (24)	10% (29)	11% (19)

to say it is *not* okay to download music after paying for it (26 percentage points difference). High and low computer users in the grandparent generation had similar beliefs on downloading a paper.

Correlations with the total time spent on the computer were conducted by generation for each of the 11 descriptions in question 14, as well as for the 4 questions concerning downloading from the computer. Among the 3 generations, only 2 statistically significant ( $P < .05$ ) correlations were found. A statistically significant positive correlation was found between the total time on the computer and not paying to download music for the middle school generation. The more time middle schoolers spent on the computer, the less likely they were to feel bad about downloading music without paying for it, perhaps evidence of the influence of the computer. A negative correlation was found between the

total time spent on the computer and taking supplies home from work, also for the middle school generation.

**Table 12**

Perceptions of the Internet

I think the Internet is like a.....?

	Post Office	Shopping Center	Library	School	Entertainment Place	Meeting Place	Bank	Other
VDAI	37%	61%	77%	47%	72%	28%	30%	26%

The last question that must be addressed is “Are responses conditioned by the way people perceive the internet?” In question 8, respondents were asked, “I think the Internet is like a...?” Respondents were told to check all answers that applied. The eight choices are listed in Table 12 and were taken from a study conducted in The People’s Republic of China (Liang 2003). We do not have value information for China, only the views of the Chinese towards the computer. Analyses were conducted for the middle school generation to look at the relationship between how respondents perceive the internet and their responses to the OBEYLAW and Download Without Pay question. The value questions were chosen for exploration because they showed the middle schoolers differing most from the other generations in Tables 1 and 11. Of the 26 middle schoolers who perceived the internet as a “Library,” 69% believe the law should always be obeyed; while of the other 26 middle schoolers (who do not perceive the internet as a library) 65%

believe the law should always be obeyed. For this generation, seeing the internet as a library seems to have only a small impact on belief in always obeying the law, but a larger impact on whether it is okay to download music without paying for it (85% vs 62%, a 23 percentage point difference). A similar pattern is visible for those who view the internet as a school. More generally, those middle schoolers who view the internet seriously (such as a school or library) are somewhat more likely than those who do not so view it to endorse OBEYLAW. They are also less likely than those who view it less seriously to say it is okay to download music without paying for it. In general, the reverse pattern holds for those who perceive the internet somewhat frivolously (shopping center, meeting place, bank, post office, or entertainment place).

### Discussion and Conclusion

One explanation for the increasing number of non-responses as the age groups got older might be the older generations' possible lack of understanding, or experience. Because of their unfamiliarity with computers and new technological concepts, many of the elder groups might have been unable to comprehend what the question was asking.

As evidenced by Table 3, the respondents in this study were much more likely to say one should always obey a law than those responding to the GSS in 1985, 1990, as well as 1996. While this may indeed be a change over time, another possible explanation for this difference might be the sensitization of this ethical question. In the GSS, the OBEYLAW question is asked as part of a series of questions concerning the role of government. However, in this study, the question was asked surrounded by questions requesting demographic information, such as education level and access to a computer, and before other "value" questions. This study asks the OBEYLAW question seemingly out of the blue, but the GSS respondents were already thinking about the subject because of previous questions. The surrounding questions might thus persuade people to choose a certain response.

It is clear that a variety of different judgments exists today between the generations, though not to the extent found in Payne et al. (1973). That established, the roots of these differences was explored. The results found suggest that the responses of participants were not conditioned by religiosity. Further, with the exceptions of shopping/paying bills and paid work, middle schoolers spend more time engaged in activities on the computer than either their parents or grandparents. This leads one to believe that computer mediation of the differences in values is tenable.

It could be argued that the responses given by middle schoolers are not a result of their exposure to the internet, but rather their lack of a complete moral development. Embedded in the conventional morality level of development, these seventh graders could be more concerned with personal acceptance and following authority, rather than distinguishing right from wrong. They have not yet reached the postconventional level. This is borne out by the high percent of this generation endorsing OBEYLAW (see Table 3).

Clearly there are large differences in the responses of each generation between high and low computer users. Yet high and low computer users in the middle school generation consistently had reverse views from parents and grandparents for any given download music question. In particular, for the Download Music Without Paying question, high computer users in the middle school generation were more likely than low users to say it is “Okay,” yet for both parents and grandparents, the opposite was true (see Table 11). This suggests that there is an effect of the computer as well as an effect of developmental stage.

Results specify this argument further and suggest that it is not merely computer usage, but views of the computer that influence values for the middle school generation. Those who view the computer seriously seem to subscribe more strongly than those who do not to conventional morality. Those who see the computer in a more playful way are both more willing to take a moral advantage of it and to sometimes exercise post-conventional morality.

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