

# Ethical Orientation towards the Use of Technology across Generations

*by Ipsa Babbar*

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**Submission date:** 30-May-2019 03:37PM (UTC+0530)

**Submission ID:** 1137806138

**File name:** ipsa\_Babbar\_MRP\_1.docx (2.11M)

**Word count:** 1590

**Character count:** 8722

# RESEARCH PROJECT

**Topic:**

## **Ethical Orientation towards the Use of Technology across Generations**

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Under the Guidance of

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## **UNIVERSITY SCHOOL OF MANAGEMENT & ENTREPRENEURSHIP**

**Delhi Technological University**

MAY 2019

## **CERTIFICATE**

This is to certify that **Ms. Ipsa Babbar (2K17/MBA/720)**, a student of MBA in Human Resource and Information Technology has successfully completed the project entitled, **“Ethical Orientation Towards the Use of Technology Across Various Generations”** under the guidance of **Assist. Prof. Mr. Naval Garg** (Supervisor/ Mentor) in the year 2019 in partial fulfilment of end semester examination conducted at the University School of Management and Entrepreneurship, New Delhi – 110095.

**Assist. Prof. Mr. Naval Garg**

**Date**

**University School of Management and Entrepreneurship**

**Delhi Technological University**

**New Delhi – 110095**

## **DECLARATION**

This research project is my original work and has not been submitted for examination to any other university.

**Ipsa Babbar**

**Date**

This research project has been submitted for examination with my approval as the University Supervisor/ Mentor.

**Assist. Prof. Mr. Naval Garg**

**University School of Management & Entrepreneurship**

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## **ACKNOWLEDGEMENT**

It gives me immense pleasure to express my sincere gratitude and heartfelt thanks to Assistant Professor Mr. Naval Garg (Human Resource department, University School of Management and Entrepreneurship) for his immaculate guidance, invaluable suggestions and constant encouragement throughout the course of the study.

I would also like to thank Ms. Shivangi (Phd. Scholar) for her constant support during the research work. I would like to thank Prof. Amit Mookerjee, under whose patronage the study was conducted. I wish to express my heartfelt gratitude to my family and friends for always providing me the much needed moral support and encouragement.

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## **ABSTRACT**

Technology has become an important part of our lives today. The ubiquity of the technology has found importance in extensive studies and researches being done nowadays. Technology has become a part of our professional as well as personal lives and thus aligning it with the ethical values becomes important. With emerging technologies every day and the rising ethical issues the concept of “information ethics” comes in to picture. It provides us with certain guidelines that helps establish a link between the ethical issues and technological aspects.

This project discusses about the new evolved theories of ethics and the prevailing ethical issues. The objective of the study is to determine the ethical orientation regarding the use of technology across generations (post-millennials, millennials, pre-millennials) in India. Also, how the gender of an individual and the organization they work in affects the ethical orientation is analyzed.

The results states that the gender of an individual does not significantly affects the orientation but the type of organization (private or public) and the generation to which the individual belongs have significantly affects the ethical orientation towards the use of technology.

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## INTRODUCTION

Technology has become an inevitable part of our lives today. Most people live and work within the context of information technology. Technology is a body of knowledge devoted to creating tools and processing actions. The dynamic nature of technology has led to the existence of various definitions and concepts of technology. According to Kumar et. al (1999) technology consists of two primary components: 1) a physical component which comprises of items such as products, tooling, equipment, blueprints, techniques, and processes; and 2) the informational component which consists of know-how in management, marketing, production, quality control, reliability, skilled labor and functional areas. By scrutinizing the technology definition, there are two basic components that can be identified: 1) 'knowledge' or technique; and 2) 'doing things'. Technology is always connected with obtaining certain result, resolving certain problems, completing certain tasks using particular skills, employing knowledge and exploiting assets (Lan and Young, 1996). The concept of technology does not only relate to the technology that embodies in the product but it is also associated with the knowledge or information of its use, application and the process in developing the product (Lovell, 1998; Bozeman, 2000). The latest definition given by Mascus (2003) has broadened the concept of technology where technology is defined as 'the information necessary to achieve a certain production outcome from a particular means of combining or processing selected inputs which include production processes, intra-firm organizational structures, management techniques, and means of finance, marketing methods or any of its combination.'

IT has surely augmented leisure time and cultivated the culture by amplifying the distribution of information. The modern technology relieves pressures on the urban areas by enabling individuals to work from home or remote site offices. Over the time, technology has changed the way we work, and the way we work with one another. In terms of speed and productivity these changes have mostly turned out to be positive. But at what cost? IT introduces change that creates new ethical issues. The use of information technology in society is creating a rare set of ethical issues that demands the making of new moral choices on our part. The ethical issues involved can be grouped in to 4 categories. These are: Privacy, Accuracy, Property, Accessibility.

**PRIVACY:** The growth of technology with its enhanced capacity of communication, surveillance, storage and retrieval is a threat to our privacy. The increased value of information also poses a major threat to one's privacy. Information is increasingly valuable to the decision makers; they covet it even if acquiring it invades another's privacy.

**ACCURACY:** Misinformation has a way of fouling up people's lives, especially when the party with the inaccurate information has an advantage in power and authority. A special burden is placed on the accuracy of information when people rely on it for matters of life and death, as we increasingly do.

**PROPERTY:** One of the most complex issues we face as a society is the question of intellectual property rights. There are substantial economic and ethical concerns surrounding these rights; concerns revolving around the special attributes of information itself and the means by which it is transmitted. Any individual item of information can be extremely costly to produce in the first instance. Yet, once it is produced, that information has the illusive quality of being easy to reproduce and to share with others. Moreover, this replication can take place without destroying the original. This makes information hard to safeguard since, unlike tangible property, it becomes communicable and hard to keep it to one's self. It is even difficult to secure appropriate reimbursements when somebody else uses your information.

**ACCESS:** Information systems should be accessible to avoid the indignities of information illiteracy and deprivation. Here the concern is, what information does a person or an organization have a right or a privilege to obtain, under what conditions and with what safeguards?

The power-enhancing capabilities makes technology an inducer of many ethical issues we face today. We cannot ignore the darker side of the development and technology, which is quite evident today. Modern technology is beginning to penetrate and direct all of culture. Nevertheless, there is actually less face-to-face contact between people than ever before, leading to mutual alienation, loneliness, and social disintegration.

This study thus aims at evaluating the ethical orientation of different generations towards technology. The research revolves around the fact that how the pre-millennials, millennials and post-millennials perceive different technical situations they face at their workplace.

## **OBJECTIVES OF THE STUDY**

- To assess how the ethical orientation regarding the use of technology is affected by the gender of a person.
- To assess how the type of organization affects the ethical orientation regarding the use of technology.
- To determine the ethical orientation regarding the use of technology across generations

## **LITERATURE REVIEW**

### **Ethics**

Now we go to the subject of what we mean by ethics. The term has numerous definitions. Fortunately, most overlap, at least to some degree, resulting about a huge proportion of understanding regardless of the distinctions. Most will concur that ethics is a theoretical discipline that reflects on the good or responsible actions of human beings. Ethics is not so much a particular science as a multidisciplinary or interdisciplinary endeavor. Ethics has to do with human consistence to every standardizing part of the real world.

According to Turban, et. al. (1999), ethics is a branch of philosophy that deals with what is considered to be right and wrong. In one of the seasoned codes of ethics, the Ten Commandments, clear specifications are given of what an individual ought to and ought not do. Over the years, savant have proposed numerous ethical guidelines, yet what is un-ethical is not necessarily illicit. Thus, in most instances, an individual faced with an ethical decision is not considering whether or not to break the law. In today's complex environment, the definition of "right" and "wrong" are not in every case clear. A code of ethics is collection of principles intended as a guide for individuals from an organization or an affiliation.

### **Theories of Ethics**

McCarthy et al (2005) suggested that ethical theories provide classifications and strategies to figuring out what what is ethically relevant. There are various avenues of ethical reasoning. Modern ethical theory can be divided into two broad categories:

#### **TELEOLOGICAL ETHICAL THEORIES**

This theory centre essentially around the outcomes, results, ends, goals, and purposes of agent acts. They give priority to the goods over the right and assess activities by the objective or results that they accomplish. Utilitarianism, a form of consequentialism, a hypothesis predicated on the

supposition that consequences determine the rightness or wrongness of moral actions is an example of teleological approach to ethics.

#### DEONTOLOGICAL ETHICAL THEORIES

This theory focus on the demonstration taken by the specialist and the obligations, rights, benefits or duties that relate to that demonstration. As indicated by a deontological structure actions are intrinsically right or wrong regardless of the consequences they produce. Deontological theories incorporate both duty- based and right- based approaches to ethical reasoning, sometimes referred to as pluralism or contractarianism respectively (Spinello: 1995).The basic contrast between the two is that deontological points of view center around the particular activities or practices of an individual while teleological viewpoints center around the consequences of the activities

#### THEORY OF INFORMATION ETHICS

Information ethics is the field that researches the ethical issues emerging from the advancement and use of data advances. It gives a basic structure to considering moral issues concerning informational privacy, moral agency (for example: whether artificial agents may be moral), new environmental issues (especially how agents should one behave in the info sphere), problems arising from the lifecycle (creation, collection, recording, distribution, processing, etc.) of information (especially ownership and copyright, digital divide). Data transmission and proficiency are fundamental concerns in establishing an ethical foundation that promotes fair, equitable, and responsible practices. Information ethics comprehensively inspects issues related to ownership, access, privacy, security, and community.

#### THEORY OF COMPUTER ETHICS

The study of computer ethics are required are required in light of the fact that there is a vacuum of approaches encompassing the new potential outcomes. Computer ethics is the analysis of the nature and social impact of computer technology and the corresponding formulation and justification of policies for the ethical use of such a technology. It incorporates concerns about

software as well as hardware and concerns about networks connecting computers as well as computers themselves. Computers provide us with new capabilities and these in turn give us new choices for action. A central task of computer ethics is to formulate approaches to direct our activities. It is undeniable that some ethical situations confront us as an individual and some as a society. Computer ethics soaks up contemplations of both personal as well as social policies for ethical use of computer technology.

## **ETHICAL ISSUES**

Each progression in data innovation is joined by in any event one moral bind. From Facebook to email refreshes, computer users are unconscious of the fine harmony between ethics and benefit struck by suppliers. Programming designers, organizations and people must consider the rights and wrongs of utilizing data innovation consistently. The fundamental issues underlying the world of information technology are the end user's expectation of privacy and the provider's ethical duty to use applications or email responsibly. Technology affects fundamental rights involving copyright protection, intellectual freedom, accountability, and security.

Prior to now, business achievement was based on the capacity to move merchandise and ventures with speed and precision. Today, information has turned into the fuel that impels business achievement. Information technology has been defined as the processing and distribution of data using computer hardware, software, telecommunications and digital electronics. As noted by Carbo (2006) ethical considerations for ICT related issues first appeared under the topic "information ethics" in the Annual Review of Information Science and Technology in 1992. This proposes that there is an ethical agenda associated with the use of ICT. Individuals and organisations therefore need to be ethically sensitive as they deploy ICT on their operations.

In the working environment for instance, new kinds of jobs are being created such as data miners, web-counselors etc, however these open doors are also endangered by problems of unemployment from computer replacing humans. A wide scope of new laws, guidelines, principles and practices are accordingly required if society is to deal with these working environment and different changes and advancement realized by ICT. In this way the general public need to consider the accompanying ethical and social moves related with ICT use:

- Recognition for personal and corporate ethics associated with ICT.
- Striking a balance between ethical, economic and technological (Rogerson, 2008) as well as political considerations.

In the rapidly changing technological environment in which we live, ethical issues are progressively being raised, requesting consideration and endeavors towards goals. Quite compelling for us and the information society are those identified with information correspondence advancements (ICTs). The explosive growth of ICT and the use of its enabling technologies have had major impacts on society and thus raise serious ethical questions for individuals and organisations. These issues have been raised to another and regularly bewildering dimension which has enormously influenced the general public in different ways. The problems that are begging to be addressed raised by ICT include the invasion of individual and corporate privacy, intellectual property rights, individual and societal rights, values preservation and accountability for the consequences arising from the use of ICT, etc. These issues have hurled significant difficulties in the region of business; working conditions and distinction.

As per Fielden, (2004), Information Technology (IT) has a focal job in business, industry, government, medication, education, entertainment and society on the loose. Its monetary and social advantages scarcely need clarification. But like any other technologies, IT also has problematic implications, and some negative impacts on our society. It poses and creates some problems related to ethics, and contains in general three main types of ethical issues: personal privacy, access right, and harmful actions.

Grimes, Fleischman & Jaeger (2009) notes that in computer ethics, harmful action means injury or negative consequences, such as undesirable loss of information, loss of property, property damage, or unwanted environmental impacts. This principle prohibits use of computing technology in ways that result in harm to any of users, the general public, employees, and employers. Harmful actions include purposeful annihilation or change of documents and projects prompting genuine loss of resources or unnecessary expenditure of human resources such as the time and effort required to purge systems from computer viruses.



## **ETHICS OF TECHNOLOGY**

An ethics of technology concerns itself with people's good or responsible conduct in and with technology as well as with complying with the legitimate motives, sound values, and norms that hold for technology and its use. Technology do expand the conceivable outcomes and abilities of people, which appears by and large alluring yet it has been perceived that the new capacities might be put to terrible use or lead to human hubris. However, these undesirable consequences are attributed to the users of technology, rather than the technology itself, or its developers. This vision is known as the instrumental vision of technology resulting in the so-called neutrality thesis. The neutrality thesis holds that technology is a neutral instrument that can be put to good or bad use by its users.

Ethics of technology is characterized by a by a decent variety of approaches. Three basic strands that are distinguished in the ethics of technology include:

### CULTURAL AND POLITICAL APPROACHES

Cultural approaches conceive of technology as a cultural phenomenon that influences our perception of the world whereas political approaches conceive of technology as a political phenomenon i.e., as a marvel that is administered by and epitomizes institutional power relations between individuals.

### ENGINEERING ETHICS

Engineering ethics is concerned with "the activities and choices made by people, independently or collectively, who belong to the profession of engineering" (Baum 1980)

Typical ethical issues that are discussed in engineering ethics are professional obligations of engineers as exemplified in, for example, codes of ethics of engineers, the role of engineers versus managers, competence, honesty, whistle-blowing, concern for safety and conflicts of interest (Davis 1998, 2005; Martin & Schinzinger 2005; Harris, Pritchard, & Rabins 2008).

### ETHICS OF SPECIFIC TECHNOLOGIES

The foundation of new fields like mechanical autonomy, machine ethics, and the ethics of algorithms is a response to social and technological developments. New fields of ethical application might also require new methods for discerning ethical issues. New fields of moral application may likewise require new strategies for perceiving ethical issues. Another progressively broad issue that applies to numerous new advances is the means by which to manage the vulnerabilities about (potential) social and moral effects that normally encompass new rising innovations

## METHODOLOGY

### SAMPLE

The sample was drawn from participants across various generations. They were categorized in three generation classes: pre-millennial, millennial or post-millennial. The participants were either middle or senior managers of their respective organizations. The questionnaire was floated online and then the responses were collected. The completion of these questionnaires was entirely voluntary and the responses were kept confidential.

### INSTRUMENT USED TO COLLECT DATA

A survey based method was selected for the study in which a well-established questionnaire was adopted. The questionnaire had two sections. Section 1 comprised of the demographic profile of the respondent consisting of questions related to their age, gender, and department of the organization they are working in. Section 2 aims at knowing the ethical orientation of the respondent towards technology. This section consists of 20 questions which were analyzed using a five-point Likert Scale, ranging from 1 "Most Unethical" to 5 "Highly Ethical". Reliability test is conducted to know whether the items in the questionnaire are related to each other or not.

Cronbach's alpha	Internal consistency
$0.9 \leq \alpha$	Excellent
$0.8 \leq \alpha < 0.9$	Good
$0.7 \leq \alpha < 0.8$	Acceptable
$0.6 \leq \alpha < 0.7$	Questionable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

TABLE 1: Cronbach's Standards

Source: George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon

To check the reliability of the questionnaire we calculated the Cronbach's Alpha which is commonly used to determine the fit of the tools and scales established for the research projects. A score of 0.07 or greater is often considered to be acceptably good.

The Table2 shows the Cronbach's Alpha Reliability Results. It clearly demonstrates that the designed questionnaire has a good reliability, with an alpha score of 0.792.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.792	.789	20

## DATA DESCRIPTION

In order to conduct the study 104 responses were recorded of the individuals working in industries. The demographic information comprised of factors such as age, gender, qualification and type of organization (public or private). The tables below categorizes the respondent's demographic data.

### AGE

For conducting the study the age of the respondents were determined using the following brackets (21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51-55). For our study the respondents within the age bracket of 21-25 were considered as post-millennials, from 26-40 years were taken to be millennials and above 40 were the pre-millennials.

Table 3, clearly indicates that we have 32.37% of millennials, 34.3% of pre-millennials and 33.33% of post-millennials.

Age	Frequency	Percentage
21-25	35	33.33
26-30	11	10.48
31-35	15	13.29
36-40	9	8.60
41-45	10	9.50
46-50	9	8.60
51-55	17	16.20
Grand Total	105	100.0%

### GENDER

Table 4, demonstrates the distribution of the data on the basis of gender. The data statistics states that the female respondents are 56 in number which is 53.33% of the total data and 49 were the total number of males that is 46.67% of the total data. This is thus evident that number of female respondents were more than that of the males.

Gender	Frequency of Age	Percentage
Female	56	53.33
Male	49	46.67
Grand Total	105	100.0%

### ORGANIZATION

Table 5, classifies the data on the basis of the kind of organization the respondent works in. The organization type is divided in to 2 sub-classes which includes, private sector and public sector. There were 63 respondents that worked in the public sector while the rest 41 belonged to the private sector.

Table 5: Distribution of sample by the kind of organization they work in

ORGANIZATION TYPE	FREQUENCY	PERCENTAGE
Public	63	60.1
Private	41	39.9
Grand Total	105	100.0%

## RESULT

The data analysis was done by using the Statistical Package for the Social Sciences (SPSS). This mode was chosen due to its high acceptability in both academic and business operations. SPSS is a versatile program which enables the user to analyze, transform and thus obtain the desired output of the data. We have used independent t-test which helps in determining that is the difference between the means of two groups is due to the independent variable or simply by chance. T-Test manifest the probability of the outcome and thus helps the researcher to accept or reject the null hypothesis.

For the analysis of data, ANOVA has also been used in the research. ANOVA also helps in determining prominent differences between the groups. As t-test has limited application of analyzing only 2 groups at a time, ANOVA helps in analyzing the differences in three or more groups. ANOVA also produces a F-value. If the probability of occurrence of the F-value is less than 0.05 it establishes the fact that there are significant differences in groups and hence variation has not occurred by chance.

The analysis was conducted by taking GENDER, TYPE of ORGANIZATION and AGE as the grouping variables whereas the statements of the questionnaire were treated as the test variables.

Independent t-test was applied to study the affect of Gender and Type of Organization on the test variables whereas one-way ANOVA was applied to study how age affects the ethical orientation towards technology.

### GENDER

An independent t-test was applied to study if gender of an individual affects the ethical orientation towards technology in the current working environment. This as significant in knowing whether males and females differ in their pattern on perceiving the ethical issues. It was observed that the mean values of the females were higher than that of the males but there was no significant difference in the tested values. The highest value mean value is of 2.80 for the test variable q1.

Table 6: Group Statistics

Gender		N	Mean	Std. Deviation	Std. Error Mean
q 1	Male	4 8	2.60	1. 005	.145
	Female	5 6	2.80	.749	.100
q 2	Male	4 8	2.50	1. 092	.158
	Female	5 6	2.64	.773	.103
q 3	Male	4 8	2.25	.758	.109
	Female	5 6	2.54	.738	.099
q 4	Male	4 8	1.85	.772	.111
	Female	5 6	2.18	.811	.108
q 5	Male	4 8	1.69	.803	.116
	Female	5 6	1.50	.661	.088
q 6	Male	4 8	1.71	.771	.111
	Female	5 6	1.61	.824	.110
q 7	Male	4 8	1.63	.703	.102
	Female	5 6	1.46	.660	.088
q 8	Male	4 8	2.65	1. 021	.147
	Female	5 6	2.66	.859	.115
q 9	Male	4 8	2.27	1. 067	.154
	Female	5 6	2.36	.819	.109
q10	Male	4 8	2.02	.956	.138
	Female	5 6	2.11	.928	.124
q11	Male	4 8	1.96	.898	.130
	Female	5 6	2.14	.819	.109
q12	Male	4 8	1.96	.874	.126
	Female	5 6	1.82	.690	.092
q13	Male	4 8	2.13	.841	.121
	Female	5 6	2.00	.853	.114
q14	Male	4 8	1.58	.739	.107
	Female	5 6	1.48	.660	.088
q15	Male	4 8	1.69	.879	.127
	Female	5 6	1.50	.661	.088
q16	Male	4 8	1.60	.818	.118
	Female	5 6	1.50	.714	.095
q17	Male	4 8	2.13	.981	.142
	Female	5 6	1.79	.803	.107
q18	Male	4 8	2.33	.975	.141
	Female	5 6	2.00	.739	.099
q19	Male	4 8	2.13	.815	.118
	Female	5 6	1.91	.668	.089
q20	Male	4 8	1.88	.890	.128
	Female	5 6	1.73	.646	.086



Table 7: Independent Sample Test

		t-Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
q 1	Equal variances assumed	7.009	.009	-1.157	102	.024
	Equal variances not assumed			-1.131	85.770	.261
q 2	Equal variances assumed	10.867	.001	-.778	102	.038
	Equal variances not assumed			-.758	82.981	.450
q 3	Equal variances assumed	.470	.495	-1.944	102	.055
	Equal variances not assumed			-1.940	98.702	.055
q 4	Equal variances assumed	.024	.877	-2.079	102	.040
	Equal variances not assumed			-2.087	100.879	.039
q 5	Equal variances assumed	2.663	.106	1.306	102	.049
	Equal variances not assumed			1.287	91.130	.201
q 6	Equal variances assumed	.000	.989	.643	102	.022
	Equal variances not assumed			.646	101.203	.519
q 7	Equal variances assumed	.930	.337	1.201	102	.023
	Equal variances not assumed			1.195	97.313	.023
q 8	Equal variances assumed	2.119	.149	-.081	102	.036
	Equal variances not assumed			-.080	92.288	.037
q 9	Equal variances assumed	2.049	.155	-.466	102	.042
	Equal variances not assumed			-.457	87.397	.649
q10	Equal variances assumed	.667	.416	-.466	102	.042

	Equal variances not assumed			-.465	98.598	.643
q11	Equal variances assumed	.226	.635	-1.096	102	.027
	Equal variances not assumed			-1.088	96.116	.279
q12	Equal variances assumed	.855	.357	.892	102	.035
	Equal variances not assumed			.876	88.959	.038
q13	Equal variances assumed	.303	.583	.750	102	.045
	Equal variances not assumed			.751	99.983	.455
q14	Equal variances assumed	.863	.355	.737	102	.036
	Equal variances not assumed			.731	95.230	.467
q15	Equal variances assumed	3.171	.078	1.240	102	.018
	Equal variances not assumed			1.213	86.248	.228
q16	Equal variances assumed	1.206	.275	.693	102	.049
	Equal variances not assumed			.686	94.070	.494
q17	Equal variances assumed	2.068	.153	1.939	102	.045
	Equal variances not assumed			1.910	90.836	.059
q18	Equal variances assumed	12.528	.001	1.981	102	.050
	Equal variances not assumed			1.939	86.690	.056
q19	Equal variances assumed	2.016	.159	1.473	102	.044
	Equal variances not assumed			1.451	90.929	.150
q20	Equal variances assumed	3.471	.065	.945	102	.047
	Equal variances not assumed			.923	84.356	.359

## ORGANIZATION

Two broad classes of organizations were considered for this study namely,

- Public sector
- Private sector

If we study the data given in Table we can conclude that the mean values of the people working in the public sector are higher than those of working in the private sector. This can be due to how these individuals align themselves with the mission, vision and ownership. Pollitt (2003) analyzes private sector organizations which avoid the ethical duties and display little or no 'social conscience'. In other words profits come before principles for the private sector.

According to the results, the highest mean value is of 2.84 obtained by the public sector for the test variable Q1.

Table 8: Group Statistics of T – Test For Organization Type

Organization	N	Mean	Std. Deviation	Std. Error Mean
q1 Public	63	2.84	827	.104
Private	41	1.21	925	.145
q2 Public	63	2.76	911	.115
Private	41	1.29	901	.141
q3 Public	63	2.56	799	.101
Private	41	0.17	629	.098
q4 Public	63	2.27	846	.107
Private	41	1.06	575	.090
q5 Public	63	1.68	820	.103
Private	41	0.44	550	.086
q6 Public	63	1.81	913	.115
Private	41	0.41	499	.078
q7 Public	63	1.63	768	.097
Private	41	0.39	494	.077
q8 Public	63	2.75	933	.118
Private	41	1.51	925	.145
q9 Public	63	2.46	964	.121
Private	41	1.10	860	.134
q10 Public	63	2.22	975	.123
Private	41	1.13	834	.130
q11 Public	63	2.29	906	.114
Private	41	1.01	642	.100
q12 Public	63	1.97	879	.111
Private	41	0.76	582	.091
q13 Public	63	2.11	845	.106
Private	41	1.98	851	.133

q14	Public	63	1.59	775		.098
	Private	41	0.44	590		.086
q15	Public	63	1.68	877		.110
	Private	41	0.44	590		.086
q16	Public	63	2.63	867		.109
	Private	41	1.41	547		.085
q17	Public	63	2.08	955		.120
	Private	41	1.73	775		.121
q18	Public	63	2.32	877		.110
	Private	41	1.90	800		.125
q19	Public	63	2.73	793		.100
	Private	41	1.83	629		.098
q20	Public	63	1.92	848		.107
	Private	41	0.61	586		.092

Table 9: Independent Samples Test

		Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)
		F	Sig.			
q1	Equal variances assumed	2.132	.147	1.892	102	
	Equal variances not assumed			1.847	78.690	
q2	Equal variances assumed	.553	.459	2.578	102	.011
	Equal variances not assumed			2.584	86.258	
q3	Equal variances assumed	8.953	.003	2.603	102	.011
	Equal variances not assumed			2.737	98.245	
q4	Equal variances assumed	3.772	.055	4.053	102	.000
	Equal variances not assumed			4.385	101.780	
q5	Equal variances assumed	6.456	.013	1.672	102	.098
	Equal variances not assumed			1.813	101.880	
q6	Equal variances assumed	7.166	.009	2.531	102	.013
	Equal variances not assumed			2.842	99.469	

q7	Equal variances assumed	9.862	.002	1.809	102	.073
	Equal variances not assumed			1.977	101.994	.051
q8	Equal variances assumed	.014	.906	1.253	102	.213
	Equal variances not assumed			1.255	86.104	.213
q9	Equal variances assumed	3.161	.078	1.955	102	.053
	Equal variances not assumed			2.003	92.325	.048
q10	Equal variances assumed	1.838	.178	2.124	102	.036
	Equal variances not assumed			2.196	94.539	.031

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
q11	Equal variances assumed	5.707	.019	3.547	102	.001
	Equal variances not assumed			3.808	101.195	.000
q12	Equal variances assumed	.905	.344	1.362	102	.176
	Equal variances not assumed			1.480	101.954	.142
q13	Equal variances assumed	.005	.942	.797	102	.427
	Equal variances not assumed			.796	85.135	.428
q14	Equal variances assumed	4.155	.044	1.062	102	.291
	Equal variances not assumed			1.140	101.184	.257
q15	Equal variances assumed	6.130	.015	1.586	102	.116
	Equal variances not assumed			1.740	101.899	.085
q16	Equal variances assumed	6.050	.016	1.449	102	.150
	Equal variances not assumed			1.589	101.928	.115

q17	Equal variances assumed	.942	.334	1.948	102	.054
	Equal variances not assumed			2.036	97.004	.044
q18	Equal variances assumed	1.681	.198	2.441	102	.016
	Equal variances not assumed			2.488	91.057	.015
q19	Equal variances assumed	.743	.391	2.024	102	.046
	Equal variances not assumed			2.126	97.965	.036
q20	Equal variances assumed	.680	.411	2.048	102	.043
	Equal variances not assumed			2.209	101.582	.029

## AGE

As mentioned before we have considered the people falling in the age bracket of 21-25 years as post millennials, 26-40 years as millennials and 40 above as pre-millennials.

After analyzing the table we can conclude that pre-millennials have a strong virtue in working ethically at their respective workplaces and the post-millennials have the least. This is due to the fact that the mean values of pre-millennials are significantly higher than that of the post-millennials. The highest value being 2.99 for the test variable Q1.

Table shows that the significant values are less than 0.05 which clearly states that there is a significant difference in the ethical orientation towards the use of technology across various generations.

Table 10: Descriptive Analysis for Age

		N	Mean	Sd. Deviation	Sd. Error
1	21-2 5	3 5	1.86	.819	.095
	26-4 0	3 5	2.19	.655	.164
	41-5 5	3 5	2.99	.535	.143
	Total	105	2.71	.878	.086
2	21-2 5	35	1.79	.927	.108
	26-4 0	35	2.13	.719	.180
	41-5 5	3 5	2.82	.426	.114
	Total	105	2.58	.932	.091
3	21-2 5	35	1.79	.775	.090
	26-4 0	35	2.06	.443	.111
	41-5 5	3 5	2.59	.426	.114
	Total	105	2.40	.757	.074
4	21-2 5	35	1.64	.866	.101
	26-4 0	35	1.69	.479	.120
	41-5 5	3 5	2.18	.497	.133
	Total	105	2.03	.806	.079
5	21-2 5	35	1.55	.796	.093
	26-4 0	35	1.64	.479	.120
	41-5 5	3 5	1.69	.633	.169
	Total	105	1.59	.732	.072
6	21-2 5	35	1.64	.883	.103
	26-4 0	35	1.65	.479	.120
	41-5 5	3 5	1.69	.633	.169
	Total	105	1.65	.798	.078
7	21-2 5	35	1.50	.745	.087
	26-4 0	35	1.69	.479	.120
	41-5 5	3 5	1.69	.519	.139
	Total	105	1.54	.682	.067
8	21-2 5	35	1.71	.888	.103
	26-4 0	35	2.25	.775	.194
	41-5 5	3 5	2.92	.469	.125
	Total	105	2.65	.932	.091
9	21-2 5	35	1.64	.951	.111
	26-4 0	35	1.69	.479	.120
	41-5 5	3 5	2.58	.497	.133
	Total	105	2.32	.938	.092
10	21-2 5	35	1.50	1.008	.117
	26-4 0	35	1.69	.479	.120
	41-5 5	3 5	2.26	.519	.139



	Total	105	2.07	.938	.092
q11	21-2.5	35	1.57	.932	.108
	26-4.0	35	1.88	.500	.125
	41-5.5	3.5	2.19	.514	.137
	Total	105	2.06	.857	.084
q12	21-2.5	35	1.71	.888	.103
	26-4.0	35	1.88	.342	.085
	41-5.5	3.5	1.92	.469	.125
	Total	105	1.88	.780	.076
q13	21-2.5	35	1.64	.921	.107
	26-4.0	35	2.12	.619	.155
	41-5.5	3.5	2.13	.497	.133
	Total	105	2.06	.846	.083
q14	21-2.5	35	1.49	.763	.089
	26-4.0	35	1.57	.479	.120
	41-5.5	3.5	1.69	.514	.137
	Total	105	1.53	.696	.068
q15	21-2.5	35	1.50	.861	.100
	26-4.0	35	1.57	.447	.112

	41-5.5	3.5	1.75	.519	.139	1.20	1.80	1	2
	Total	105	1.59	.771	.076	1.44	1.74	1	4
q16	21-2.5	35	1.51	.848	.099	1.32	1.71	1	4
	26-4.0	35	1.57	.479	.120	1.43	1.94	1	2
	41-5.5	3.5	1.69	.514	.137	1.27	1.87	1	2
	Total	105	1.55	.762	.075	1.40	1.70	1	4
q17	21-2.5	35	1.93	.970	.113	1.71	2.16	1	4
	26-4.0	35	1.93	.816	.204	1.56	2.44	1	4
	41-5.5	3.5	2.00	.616	.165	1.57	2.28	1	3
	Total	105	1.94	.901	.088	1.77	2.12	1	4
q18	21-2.5	35	1.79	.892	.104	2.05	2.46	1	4
	26-4.0	35	2.00	.816	.204	1.56	2.44	1	4
	41-5.5	3.5	2.26	.699	.187	1.38	2.19	1	3
	Total	105	2.15	.868	.085	1.99	2.32	1	4
q19	21-2.5	35	1.86	.816	.095	1.88	2.26	1	4
	26-4.0	35	1.88	.500	.125	1.61	2.14	1	3
	41-5.5	3.5	2.07	.535	.143	1.55	2.17	1	3
	Total	105	2.01	.744	.073	1.86	2.15	1	4
q20	21-2.5	3.5	1.64	.861	.100	1.64	2.04	1	4
	26-4.0	35	1.75	.447	.112	1.51	1.99	1	2
	41-5.5	3.5	1.84	.497	.133	1.36	1.93	1	2
	Total	105	1.80	.768	.075	1.65	1.95	1	4

Table 11: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
q 1	Between Groups	20.208	2	10.104	17.256	.017
	Within Groups	59.138	101	.586		
	Total	79.346	103			
q 2	Between Groups	16.561	2	8.281	11.485	.029
	Within Groups	72.823	101	.721		
	Total	89.385	103			
q 3	Between Groups	9.906	2	4.953	10.182	.030
	Within Groups	49.132	101	.486		
	Total	59.038	103			
q 4	Between Groups	5.545	2	2.773	4.563	.013
	Within Groups	61.368	101	.608		
	Total	66.913	103			
q 5	Between Groups	.286	2	.143	.263	.046
	Within Groups	54.936	101	.544		
	Total	55.221	103			
q 6	Between Groups	.022	2	.011	.017	.043
	Within Groups	65.517	101	.649		
	Total	65.538	103			
q 7	Between Groups	.422	2	.211	.450	.029
	Within Groups	47.424	101	.470		
	Total	47.846	103			
q 8	Between Groups	20.168	2	10.084	14.682	.032
	Within Groups	69.371	101	.687		
	Total	89.538	103			
q 9	Between Groups	17.864	2	8.932	12.415	.036
	Within Groups	72.665	101	.719		
	Total	90.529	103			
q10	Between Groups	9.470	2	4.735	5.900	.027
	Within Groups	81.059	101	.803		
	Total	90.529	103			
q11	Between Groups	5.124	2	2.562	3.669	.033
	Within Groups	70.530	101	.698		
	Total	75.654	103			
q12	Between Groups	.495	2	.247	.402	.038
	Within Groups	62.121	101	.615		
	Total	62.615	103			
q13	Between Groups	2.784	2	1.392	1.984	.028
	Within Groups	70.870	101	.702		
	Total	73.654	103			
q14	Between Groups	.561	2	.280	.574	.015
	Within Groups	49.353	101	.489		
	Total	49.913	103			
q15	Between Groups	.559	2	.279	.465	.039
	Within Groups	60.662	101	.601		
	Total	61.221	103			

		Sum of Squares	df	Mean Square	F	Sig.
q16	Between Groups	.407	2	.204	.346	.038
	Within Groups	59.353	101	.588		
	Total	59.760	103			
q17	Between Groups	.063	2	.032	.038	.033
	Within Groups	83.591	101	.828		
	Total	83.654	103			
q18	Between Groups	3.060	2	1.530	2.075	.047
	Within Groups	74.479	101	.737		
	Total	77.538	103			
q19	Between Groups	.864	2	.432	.777	.042
	Within Groups	56.126	101	.556		
	Total	56.990	103			
q20	Between Groups	.491	2	.246	.412	.041
	Within Groups	60.268	101	.597		
	Total	60.760	103			

## **DISCUSSION AND CONCLUSION**

The world has now become an information technology driven space and hence with global networks and cloud computing systems coming in to picture it is very difficult to eliminate the ethical issues and cybercrimes. The ethical problems can be personal, political or social. Some of the ethical issues pertaining in the environment involves personal privacy, harmful actions on the internet and data access rights. The questionnaire thus designed took these factors in to consideration and the questions were formulated were in accordance with these. This study was conducted to determine the ethical orientation of individuals towards the use of technology. The grouping variables were categorized as GENDER, ORGANIZATION and AGE.

Males and females are different in their approach to the ethical issues have been a long debate since now. Gilligan (1982) suggested that males and females have distinctly different moral orientations and argued that whereas women think of moral questions as problems of care involving empathy and compassion, men appear to conceptualize them as problems of rights, justice, and fairness. According to the results that we obtained, it was noted that females were more ethically oriented towards the use of technology than males. Though, the difference was not significant enough and hence we can say that the stereotype of men not being ethically oriented can be put aside for now.

The process of globalization and privatization has lead to the widespread use of technology across organizations. It has been noted that there has always been a difference in the approach of the people working in the public sector and the ones working in the private sector. This difference can be due to how these individuals perceives their job role and how committed are they to the vision and mission of their organization. On the other hand, the main objective of the private employees is profit maximization whatever may be the means they choose.

The findings of the analysis clearly shows that there is a difference in the ethical orientation towards the use of technology between the people working for the public and the private sector. It was concluded that the respondents working in the public sector were more ethically oriented than the ones working for the private sector. An independent t-test was used to determine the mean values of the test variables and the significance level was checked. As the significance level was

less than 0.05 the null hypothesis was rejected which concluded that a significant difference does exist between the employees working for different kinds of organizations. Thus we can say that there is need to bring in the alignment between the profit hoarding nature of **the employees in the private sector** with that **of the** ethical values and culture of the organization. Also, the organizations should not only just set up the ethical norms but should try and develop a culture which imbibes these as values in the employees.

The last variable that we studied was age of the respondents and how belonging to a certain bracket of generation influence the ethical orientation towards technology. Today the working culture is such that an organization has employees of many generations working together and thus it kind of creates a pool of different ideologies in the firm. To harness harmony in the organization it is very important to acknowledge interests and ideas of all. Post-millennials and pre-millennials working together in a company can have many benefits as well crop challenges for the employer. Researches suggests that the post millennials have grown in an era of blooming technology and a hoarder of social networks which affects their approach to work. The post millennials like to work in their own way and do not shy away from expressing their views and interest. These individuals have a great impact of social networking sites on them and it tends to be their primary medium of communication. Post-millennials tend to get involved in misconduct more often as compare to the other generations and thus they are least ethically oriented. On the other hand the pre-millennials believes in conducting themselves ethically, they do not really involved in the misconducts as for them their reputation and recognition values utmost.

The test results are in accordance with the above stated facts. The mean values of the pre-millennials came out to be the highest for all the testing statements while that of the post-millennials were the least.

This information can be used by the managers in order to manage their employees and also to tailor the ethical policies in such a way that they can be adopted by the mix of employees in their firm. They should look for such programs where the employees of all generation can come together and learn from each other.

## **LIMITATIONS OF THE STUDY**

- The sample size used for conducting this study was limited.
- The study was confined to Delhi and NCR and thus it cannot be taken as a generic finding for the employees.
- The sample responses were collected using the questionnaires which may have biased responses.

# Ethical Orientation towards the Use of Technology across Generations

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