

## **A. Preliminary Section**

1. Title Page
2. Acknowledgments
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4. Abstract

## **B. Main Body**

1. Introduction
2. Statement of the Problem
3. Significance of the Problem (and historical background)
4. Definition of Terms
5. Analysis of Data
6. Description of the Research Design and Procedures Used: Completely explain step-by-step what was done.
7. Sources of Data: Give complete information about who, what, when, where, and how the data were collected.

## **C. Summary and Conclusions**

This section condenses the previous sections, succinctly presents the results concerning the hypotheses, and suggests what else can be done.

## **D. Bibliography**



**A Report on**

# **NANOTECHNOLOGY**

**The next really “Big Small Thing”**



**TY Mechanical  
March 2018**

A report submitted in partial fulfillment of the requirement of Advanced  
Business Communication: Report Writing

**CERTIFICATE**

This to certify that the work on the project titled “Nanotechnology-the next really “Big Small Thing”” has been carried out by the following students, who are bonafide students of Veermata Jijabai Technological Institute, Mumbai, in partial fulfillment of the syllabus requirement in the subject Advanced Business Communication (March 2018)

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**(You can also make your personal acknowledgements relevant to the research)**

## **ABSTRACT**

When the world's first programmable computer ENIAC(Electronic Numerical Integrator and Computer) was designed, it was definitely not meant to be carried around in a briefcase. Weighing 30 tonnes and sprawling over 1500 sq.feet, it was not an ideal torch bearer for what the future held for us. Actually the centuries ahead Future hold for us a technology  $10^{15}$  times more efficient speed wise and which can be fitted in a matchbox. Enter nanotechnology!!

What is nanotechnology? But before that, what does 'nano' mean? If earth is supposed to be a unit, a marble is supposed to be a nanounit. A nanometre is the length of a beard hair that grows in the time you raise a razor to your face. A technology scaled on units of nanometre is nanotechnology.

Nanotechnology allows you to manipulate building blocks of nature quite literally. If you change the building pattern, you get a new structure! If you twist the pattern of arrangement, you improve the character of the structure. If you copy an already existing pattern, you create something new. This creates the perception that it helps you play God.

"We are emulating nature" says Prof. Laxmi Giriraj of the Chemistry department, Sardar Patel Institute of Technology, Mumbai. On the other hand, though we are copying nature, we are equally threatening it. After micro technology and nuclear technology, nanotechnology now gets queued in ever increasing list of factors which may ring nature's knell. Unless mankind repeats its own mistake and use this fresh, new technology for catastrophic results, this technology will prove to be a rising sun during these evening times of the earth.

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## **1. Introduction**

Gender Equation is the study of differences in the characteristics of men and women in terms of statistics, in various fields of life.

There have been numerous studies in the past concerning these differences and the results indicate that the brain is the main seat of differences. For example, the right part of the female brain is more developed giving women the ability to perform many tasks simultaneously and good communication skills. The male brain is more developed on the left side allowing men to think more analytically and making them good problem-solvers.

The report deals with the changing gender equation among the urban Indian youth in the age group of 15-30 years. Various facets of their social and professional lives are dealt with to see how the gender equation manifests itself.

The Indian youth has faced some tough gender biases in the pre-independence era. Men and women have been forced to play stereotyped gender roles due to the pressure from the society. But socialization as the main factor in determining the gender equation has started to lose its importance coming into the 21<sup>st</sup> century, where people have become more broad-minded.

The gender differences today are getting diluted, when men and women share the same equation everywhere. A brief analysis has been done of such characteristics in the current scenario with the help of a comprehensive survey. The base data of the survey might not cover the entire spectrum of urban Indian youth, but the results arrived at are very significant and indicative.

The following matter throws light on the research done in this field and from where these differences get their basis.

## **2. Methodology**

The methodology adopted for the report was as follows:

Various websites were accessed to collect information on gender psychology, gender differences and gender studies. The information collected was used to prepare an outline for the report.

Based on the outline, a questionnaire was developed. The questionnaire was distributed among 60 people and the data collected formed the basis of the report. The data was organised, analysed and integrated with the text.

Dr. Ambrish Bhatt, the In-house Counsellor was consulted for guidance and endorsing our analysis.



### **3. History of Research**

The scientific study of the differences in mental aptitudes between men and women dates back at least as far as the mid-nineteenth century, when the question of women's voting rights arose in a number of countries. In Victorian England, the philosopher John Stuart Mill argued that there were no differences between men and women, whereas the renowned scientist Charles Darwin (in his *Descent of Man*) argued that women were by their nature inferior in respect to mental ability. Many of these early attempts were based on subjective data. However, some scientists, such as Paul Broca, in 1861, attempted to derive empirical results from various forms of anthropometry, namely the comparison of brain mass. With the development of psychology at the end of the nineteenth century, and the evolving focus on intelligence testing in the early twentieth century, further attempts were made by a variety of scientists to examine the mental differences between men and women.

The notion that men's and women's brains are differently organized began to gather momentum as a result of experiments which spanned the 1960s and 1970s. It began with the work of psychologist Herbert Lansdell, who studied neurosurgical patients. Lansdell found that although such injuries caused a similar overall pattern of impairment in women and men, women were less severely affected than men.

In the nineteenth century, whether men and women had equal intelligence was seen by many as a prerequisite for the granting of suffrage; in the modern world, whether men and women have different aptitudes is often taken to reveal whether disproportionate employment or payment of men is a form of sexism or simply a reflection of innate aptitudes.

Research shows that we are more a product of our biology than the victims of social stereotype. Men and women are different because their brains are wired differently. Further light will be thrown on how the brain is responsible for these gender differences.

#### **4. It's all in the Mind**

Men and women's brains have evolved with different strengths, talents and abilities.

Men, originally being responsible for hunting game, needed areas in the brain for long-distance navigation, to develop tactics for organizing the kill and to hone the skills for hitting a target.

Women, by contrast, needed an aptitude for good short-range navigation, wider peripheral vision to monitor their surroundings, the ability to perform several activities simultaneously, and effective communication skills.

As a consequence of these needs, men and women's brains developed specific areas to handle each skill. An average male brain has approximately 4% more cells and 100 grams more brain tissue than an average female brain. However, both sexes have similar brain weight to body weight ratios. Men have larger left inferior parietal lobes, while women have proportionally larger Wernicke's and Broca's areas.<sup>1</sup>

In 1861, Paul Broca examined 432 human brains and found that the brains of males had an average weight of 1325 grams, while the brains of females averaged 1144 grams. The differences are small but persist when adjusted for body size.

In 2005, Haier reported that compared with men, women show more white matter and fewer grey matter areas in the brain. He also reported that the brain areas correlated with IQ differ between the sexes.

## **Conclusion**

The conclusion should reprise the questions and conclusions of the introduction, perhaps augmented by some additional observations or details gleaned from the analysis section. New questions, future work, etc., can also be raised here.

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