Novelty Journals

**International Journal of Novel Research in Interdisciplinary Studies**
Vol. 2, Issue 1, pp: (10-12), Month: January - February 2015, Available at: www.noveltyjournals.com

# ETHICS - REVIEW

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***Abstract*: The developed countries are now foccusing on the nanotechnology research and its applications in various sstratas of life. As life become more complex people need compact and highly automated gadgets for their processings but in the 21 st centuries the nanotechnology may pave way to next revolution. The moral values of the people also differs in the usage of technologies, with the involvement of nanotechniques some views about this field makes it controversial thus ethics play a pivotal role.**

## I. INTRODUCTION

This article deals with the involvement of human beings view on usage of nanotechnology. The ethical challenges of these fields have been considered by researchers within the area of ethics and by ethical boards since the establishment of the academic discipline of bioethics during the 1970s and 1980s.There are several strategies for the research as the utmost controversies on the GMO'S is lying in one side and in another side the upcoming nanotechnological field is on the other hand. Ehicist raise their questions regarding the aspect of utilarinism, speciesm, sentiency, these are the major terminologies which is used by ethicist. Thus to satisfy the ethical issues equally with the human needs is a challenge.

### ETHICS

Modern biotechnology has the potential to throw up a wide range of what are often referred to as "moral and ethical concerns" about which it seems difficult if not impossible to reach any substantial degree of consensus. Nanotechnology is the new trend in twenty first century regarding. In each every zones of life starting from the nano chip to nano bearing from medicine to automobiles the technological innovations in this field is progressing and an "n" number of innovations are carrying out in the nanotechnological field. Nanotechnology (Flew.A.,1979), also called *molecular manufacturing*, is "a branch of engineering that deals with the design and manufacture of extremely small electronic circuits and mechanical devices built at the molecular level of matter." The goal of nanotechnology is to be able to manipulate materials at the atomic level to build the smallest possible electromechanical devices, given the physical limitations of matter.

According to the great innovator Richard Feynman who has given an enormous contribution in the field of nanotechnology, he reported a fundamental and a most significant statement that there's Plenty of Room at the Bottom, about miniaturization down to the atomic scale. Every substance are being separated into its smaller parts (nano scale).These nanoscale particles will retain the property of the substance but is independent of inertia. Top Down and Bottom Up Approach is the basic rule followed in creating a nanoparticle.

### ETHICS

To term moral concern, then it , does not necessarily mean that it is of much ethical significance. Moral views are broader vision of ethics and ethics a narrower version. Moral views depends on each persons view point for eg :- To cut a tree may be positive attitude to some persons (for the purpose to cut the tree and make furniture ),another persons view with regadance to the cutting A number of surveys have shown that, if asked, people will express moral concern about modern biotechnology, but this does not tell us whether they have done any ethical thinking about the issues. According to this suggested distinction, then, moral concerns are felt about what it is right or wrong to do, while ethical concerns are about the reasons and justifications for judging those things to be right or wrong (Rachel's.J.,1989).

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**MORALITY**

Moral and moral values whether to a situation, what a view one have. When the opinion towards a situation is not judgemental and it has a broad view regarding the statement then it is called as Morality. In description about morality and ethics, Ethicist majorly use certain common terminologies for pointing out an ethical statement (Rollin.B.,1995).

**SPECIESM**

Peter Singer, an Australian philosopher whose work on animal ethics has been highly influential, claims that equality should be given to all beings capable of suffering:"if a being suffers, there can be no moral justification for refusing to take that suffering into account."Such a refusal, involving preferential consideration for human beings over animals, has been labelled "speciesism."More preference and wheigtage is always given for human beings rather than animals that is why in drug analysis and in pharmacological studies at the final stage of the experiment human beings are used, that too rarely these human beings are experimented. In case of animals like mice, guinea pigs, rats, monkeys,etc in nanotechnological studies too they are used very frequently. The nanoparticles and analyzing the features and changes observed in the living system for the analysis these organisms in immense numbers are used.

**SENTIENCY**

Sentiency, it is the ability to feel the pain and pleasure. The organism's capacity to experience the pain, pleasure, satisfaction, and dissatisfaction all depends on the group of organisms which are used for the experiments. In the case of Nanotechnology, majorly in the stream of bionanotechnology the nanoparticles are used in medical research the clinical trials are performed in experiments to identify the affect of nanoparticle in the living system. For eg: - In the treatement of hepatic disorders, as the nanoparticle has bebeficial and harmful aspects so inorder to analyse the Hepatoprotective Activity Of *In* Indium titonate Nanomaterial Induced Liver Damage in Albino Rats (Stevenson.P, 1998).

**UTILITARIANISM**

The utiliarinism, the terminology used by ethicist to maximize pleasure and to minimize pain..The main problems with this approach are concerned with how exactly to do this calculation, particularly when we are talking about animal experiences of pleasure and pain, which are likely to be different from our own.

## II. DISTINGUISHING BETWEEN NATURAL AND UNATURAL

There is a sense of strong argument between natural and unnatural things. Initially, while having a discussion between the natural and unnatural things. In natural, the scerenic beauty the true living beings are involved, the natural medicinal plants such as neem, tulsi (Hindi Language). The fragnance giving flowers such as rose, jasmine. For indoor decorations the Orchids etc. The nature filled with creatures which has its own original beauty (Reagan.T.,1992).

The unnatural things innovations started some decades before. The innovative idea having genetically modified organisms, which have a fake identity in nature. Ethicist have some bad views about the genetically modified organisms. The more specific and serious charge of "unnaturalness" that has been levelled against genetic modification, however, is that it may breach natural species boundaries and ebb the natural integrity of species.

## III. ARE ANIMALS BEING AT RISK DURING SCIENCE EXPERIMENTS?

Risk occurs in every experiments. But risking a complex system of life,should be analysed with moral concerns. Moral concern is appropriate when irresponsible and unjustifiable risks are thought to be taken, which may result in harm to innocent parties. When doing studies or experiments in transgenic animals, and in clinical studies sacrificing the animals do exist. In studying about transgenic mice, fish, pig, cow etc, from the initial experiment to getting the desired result the animals are being sacrificed repeatedly (Reagan.T.,1992). So the view point ethicst is: Why killing such animals and other organisms for the simple sake of modification. Why the modification is needed? When there is original cow, pig, mice and other organisms do exist in nature, originally.

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## IV. DOES NANOTECHNOLOGICAL INNOVATIONS DISTURBING PRIVACY?

In the current scenario, everywhere in the world people need portable yet fashionable things to accesorise on themselves or in their buildings. By the progress of nano sized things discoveries, people have to face certain issues such as use of nano cameras, recorders etc to tapp the privacy of other people. Thus strict ethical laws have to be created to overcome these problems. Like cyber laws other technological laws have to be implemented. So that innovations can happen but the innovation will not be misused by others. Thus the correct purposes of innovations have to be implemented (Banner. M.C.,1995).

## V. CONCLUSION

Thus studying about ethics is an important area for the critical analysis of the inventions. The major significant thing about studying ethics is to have a moral concern. Implementing ethical laws and making aware about these laws, which include the rules and regulations, thus every scientific person will be one step ahead regarding the moral concerns.

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