



National University

of Computer & Emerging Sciences

Summary of Presentation: Cloning and Islam

Course: Islamiyat

Code: SS1002

Department of Electrical Engineering

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Introduction:

Cloning, a concept once confined to the realms of science fiction, has become a reality with the advancements in biotechnology. The process of creating a genetically identical copy of an organism has sparked numerous scientific, ethical, and moral debates. This article provides a comprehensive overview of cloning, exploring its different types, applications, controversies, and potential implications.

Types of Cloning:

There are two types of cloning

1.Natural Cloning:

- Organisms like bacteria, insects and some plants can clone naturally through asexual reproduction in which a zygote divides into one or more than one cells. If however, due to any reason these Cells get separated, they have the tendency to develop into multiple individuals.
- All these individuals would be identical twins due to the same Genetic makeup.
- Animals do not perform natural cloning.

2.Artificial Cloning:

- Artificial clones are created using the Somatic Cells Nuclear Transfer (SCNT) Method, in which a nucleus is Isolated from a developed cell and is inserted into a zygote.
This Altered Zygote is placed in a suitable environment where it undergoes further development. This individual is genetically identical as the Parent Nucleus. e.g. Dolly The Sheep.

There are multiple types of Artificial Cloning ranging from a microscopic cell to a whole organism, which are as follows:

Reproductive Cloning:

In Reproductive Cloning, a Whole Organism is cloned. E.g. Dolly the sheep.

Therapeutic Cloning:

In Therapeutic Cloning, specific Embryonic Stem Cells are cloned. This is somewhat beneficial for mankind. E.g. Treatment of degenerative diseases or Traumatic injuries.

Gene Cloning:

In Gene Cloning multiple copies of genes or segments of DNA are created. E.g. creating clones of the human gene for insulin.

Human and Animal Cloning:

- Keeping in view, the complexities in human cloning and the religious aspects, Human Cloning is banned in almost all countries. Though some scientists via illegal means continue to keep on experimenting.
- In contrast, animal cloning has been carried out successfully in history. The most important example of which is, Dolly the Sheep.
- If human cloning were to be done, the SCNT method would have been preferred as is used in Animal Cloning.

Somatic Cell Nuclear Transfer:

SCNT stands for Somatic Cell Nuclear Transfer. It is a laboratory technique used in cloning, where the nucleus of a somatic (body) cell is extracted and transferred into an enucleated (nucleus removed) egg cell. This process results in the creation of an embryo that has the same genetic material as the somatic cell donor. SCNT has been used in various scientific research and applications, such as cloning animals for agricultural or biomedical purposes.

Islam and Ethical Frameworks on Cloning:

Islamic scholars have addressed the topic of cloning by analysing its ethical implications and considering the religious principles outlined in the Quran and Hadith (teachings of the Prophet Muhammad, peace be upon him). While there is no explicit mention of cloning in Islamic scriptures, scholars have derived principles to guide their opinions on the matter.

1. Sanctity of Life: Islam places great emphasis on the sanctity of life,

considering it a gift from Allah. Cloning raises ethical concerns regarding the potential destruction of embryos or the creation of life solely for experimental purposes. Many Islamic scholars argue that such practices contradict the principle of valuing and preserving life.

2. Procreation:

Islam considers procreation to be a sacred act that typically occurs within the bounds of marriage. Cloning involves a deviation from natural reproduction, as it bypasses the normal process of conception. Scholars differ in their opinions on whether cloning can be considered a legitimate form of procreation.

3. Playing God:

Islamic teachings emphasize the belief in Allah's ultimate authority and control over creation. Some scholars argue that cloning, especially human cloning encroaches on Allah's domain by attempting to manipulate and replicate human life, which they view as an act of "playing God."

4. Preservation of Genetic Diversity:

Islam stresses the importance of maintaining genetic diversity within the creation of humankind. Cloning, particularly reproductive cloning, can potentially lead to a reduction in genetic diversity since it involves the replication of existing genetic material. This reduction in diversity is seen as a concern by some scholars.

Based on these ethical considerations, many Islamic scholars have expressed reservations about human cloning. However, it is important to note that opinions may vary among scholars and within different Islamic schools of thought. Therefore, it is advisable for individuals seeking guidance to consult with knowledgeable Muslim scholars who can provide specific insights based on their religious understanding.

Advantages of Cloning:

The following list shows the advantages cloning brings with it:

- 1) Organ and tissue regeneration.
- 2) Disease research and drug testing.
- 3) Stem cell therapy.
- 4) Treatment of genetic disorders.
- 5) Customized reproduction.
- 6) Organ transplantation.

Disadvantages of cloning

The following list shows the disadvantages cloning brings with it;

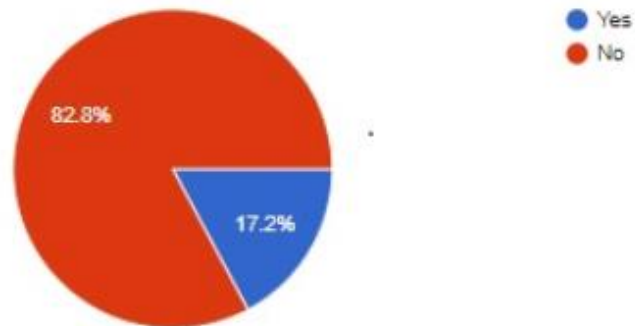
- 1) Ethical and moral concerns
- 2) Religious Limitations
- 3) Limited genetic diversity
- 4) Technological risk
- 5) Low success rate.
- 6) High cost
- 7) Embryo destruction

Survey forms:

For Engineering Universities:

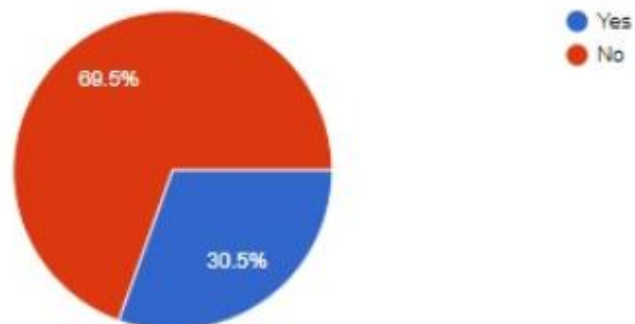
Does human cloning aligns with Islamic moral values ?

1142 responses



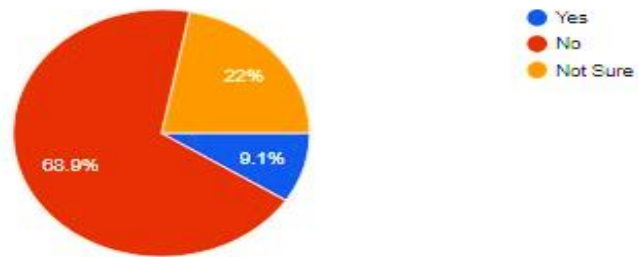
Do you think human cloning will ever be dominating ?

1146 responses



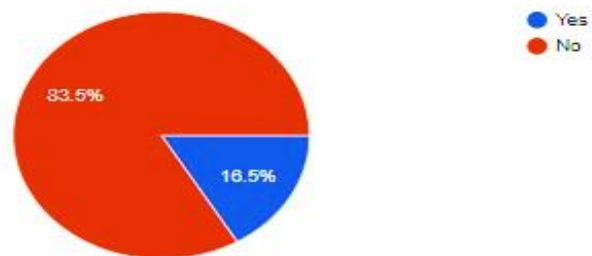
Do you support human cloning ?

1147 responses



Is human cloning ethical ?

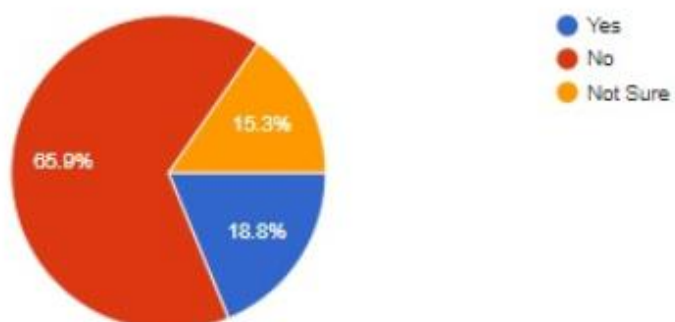
1142 responses



For Medical Universities:

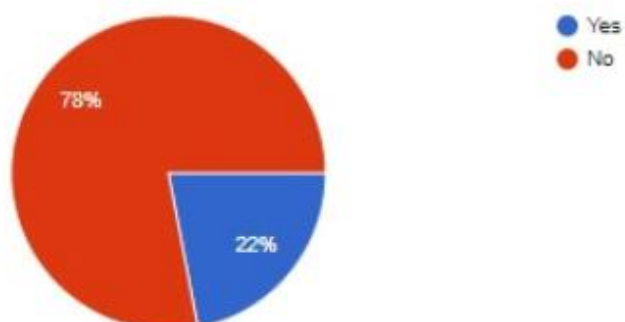
Do you support human cloning ?

403 responses



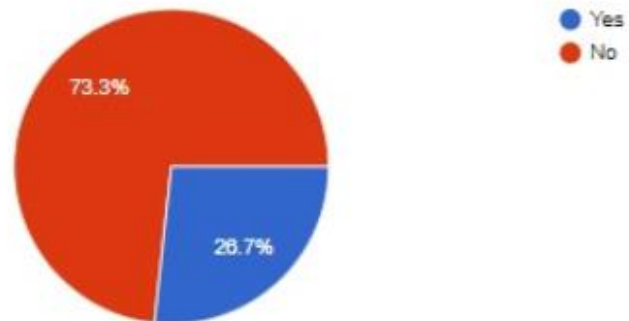
Is human cloning ethical ?

401 responses



Does human cloning aligns with Islamic moral values ?

396 responses



Do you think human cloning will ever be dominating ?

409 responses

