

# **'Neural Chip Technologies in Brain and Body Maintenance - The Prospects of Artificial Intelligence Impacts on Future Business and Life Trends'**

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## **Introduction**

The advent of the 21st Century has witnessed the two most influential revolutions ever happened in human history: the 1st Information and the Fourth Industrial Revolutions. However, the 1st Information onset has powered itself due to the speedy "microchip" developments to produce new internal branching info revolutions such as the "Internet of Things (IoT)," which is now called the "AI Invasion" [1]. Thus, Human knowledge doubled every 1000 or 500 years in the BCE written era receded to reach 2021 to upturn within 1-2 hours [2] fully.

Further, the union of the digital Information Revolution with the Industrial Fourth Revolution has produced the new third Micro-Chip Revolution, which leads to opening up limitless horizons for individuals, families, communities, societies, industries, and governments. It states to develop, innovate and achieve immensely.

Implanting a microchip under the skin upper the thumb, for example, makes all parties open to all others. What is needed to make the chip data of one side open up to another's interests and needs or purposes treated by mutual collaboration, exchanging knowledge and experience?

## **The Discovery of "Neural Chip Technologies" in Brain Maintenance in 1986 & 2021**

### **Article Questions:**

While the current sophisticated developments and massive applications of the 'Human Microchip' technologies are attracting much attention throughout many countries around the World, the main questions this article will answer follow.

- 1- How did the Discovery of "Neural Chip technologies happen in 1986 and after that in 2021?
- 2- What are the developments in the 'Microchip' industries concerning humans, animals, and plantations?
- 3- What are the therapeutic, preventional, and promotional roles, which microchip technologies are exerting in advancing the compatible ecological systems of humans, animals, and plantation lives

### **Q1: How did the Discovery of "Neural Chip technologies happen in 1986 and 2021?**

The Author of this article wrote on the "Brain Microchip", 1986a, b [3] [4], and when Mr. Elon Musk released the same idea through an announcement on the media, 2021[5]. A brief illustration of how the "Neural Chip technologies had developed is as follows.

- 1- *The 1986 First Discovery of "Neural Chip technologies appeared in the booklet "The Brain and Human Cognition." "Towards a modern psychophysiological theory of intelligence and learning." Pp.48.(The Arabic Original is attached). Authored by Mohamed Ziad Hamdan. Modern Education House, 1986a. Deposit number Jordan Directorate of Libraries and National Documents # 294/7/1986, License serial # 258/7/1986*
- 2- *The issue of (Brain" Neural Chip technologies") discovered and explained in Arabic Treatise # 51 (the Appendix) states the following, [6]:*

"Replacing the brain-damaged cells and parts. Such a task will be possible shortly. This Author expected 1986 to implant chips in the brain similar to computer silicon chips. p.45.

Moreover, "San Francisco-based Neuralink Co-founded by Musk in 2016, aimed to implant wireless brain-computer chips to help cure neurological conditions like Alzheimer's, dementia and spinal cord injuries and fuse humankind with artificial intelligence" [7].

### **Q 2: What are the developments in the 'Microchip' industries concerning humans, animals, and plantations?**

Pascale Davies wrote in 2020; that it is true, "[Thousands of people in Sweden are inserting tiny microchips under their skin.](#)" According to actuaries, "Microchips implanted into one's body are supposed to

make daily life convenient. They open a perspective to replace traditional keys, cards, IDs, and even train tickets with a microchip" [8].

Microchip replaces different cards and tokens verifying personal identity to many other systems. Chip implants help streamline everyday tasks through enhanced connectivity. Thus, some biohacking does not exceed in size of "a grain of rice" but could lead to uncertain paths of human privacy and ethics.

Individuals' implanted microchips can enter their homes, workplaces, or cars and communicate with any place on the Globe with just the slightest hand gesture. Think of sending someone your information by pointing your finger at their phone.[9]

It is noticed, that while using laptops in search of a topic on the Internet, a virtual window pops up on the screen, asking, "can we help in your search? Or in more specific inquiry: "We are sending resources for your topic"! This means two possibilities: one is, big technology industries, governmental departments, and special "untouchable" authorities (as noticed in developing and marginal countries) who own exceptional Chips, which can break in any digital machine or receive their casting electromagnetic signals; or second is, that all digital devices implanted with particular types of receiving/sending chips. In both cases, human privacies are violated without consent.

This Author cautioned against this hostile conduct some years ago by stating: at "the Age of Digital Information Nudity where huge sophisticated advancements of ICTs/ AI had enabled digital tools, software, and gadgets to infiltrate deeply in local environments for detecting any personal/private characters and perform A/V recordings using in brain /body chips messages to the central or authority services, who keep records of a person, sounds, movements, and actions. And should consider self-awareness and management control to avoid intruding into one's privacy" [10].

This brain chip implanting revolution will be a trend soon due to the accelerating scientific and technical developments that affect the various aspects of human lives. "Neural Chip technologies" will transform into a normed practice in a field that remained long outside the circles of biology research due to the stability of its genetics laws.

Scientists have recently been able to replace the genetic codes of the genes that produce someone's health defects, which could affect brain cells in the future.

As for replacing the brain with 'silicon chips' or better and more durable than could be developed in the future. We see this also possible due to the following reasons [11]:

- Compensating other body parts with artificial organs and their success in carrying out the expected physiological functions.
- The reliance of the micro silicon chip on the low electric current in its transmission of information, as is the case with the nerve impulse, where a similar electric current accompanies its biochemical impulses.

However, it remains for scholars to answer the following questions:

- How will the electric current in the brain cells excite the silicon chip in question?
- How will the electric current accompanying the nerve impulse load the required information code compatible with its match on a silicon chip? As is the case, for example, with DNA, which carries the codes for the genetic RNA series and embodies the procedural means for its reproduction?"

**Q 3: What are the therapeutic, preventional, and promotional roles, which microchip' technologies are exerting in advancing the compatible ecological systems of human, animal, and plantation lives**  
**Conclusions. Some Thoughts on the brain and the Future Implementation of the "Brain Neural Chip technologies."**

Human life will be governed shortly by the accelerating discoveries and developments of Artificial Intelligence (AI), mainly in the forms of microchips and "The Internet of Things (IoT). Humans, then animals and plants will utilize AI chips, tools, machines, and IoT equipment intensively.

Soon, a "Bio Robot" will enter the "brain literature" as a new concept and will be frequently practiced as more individuals use AI tools heavily for therapeutic, maintenance, and pioneering/innovative purposes. Thus may have a new "compromised" concept of human-based AIs I call "Bio Robot."

By the end of the 21st Century, the human brain may convert into a 'jungle' of therapeutic and pioneering "Neural chips." There will be extensive demands for remedial "Neural chips" due to excessive health deteriorations of living environments, air pollution, shortages of clean water and cleanliness, severe setbacks in the psychosocial and economic areas due to widespread public and governmental corruption, falsifying the political, economic, and social info, unjustified destructive wars, ill intention annexation of other countries, one-sided coercion blockades against nations, and uninformed malicious Cold wars among world states.

The neural destruction due to the above-fabricated irrationalities turns the living environments into harming spheres to brain plasticity. Neuroplasticity maintains the rewiring of the brain, memory, habits, and

personality. Thus, living factors such as natal experiences, drugs, hormones, maturation, aging, diet, disease, and stress negatively influence brain plasticity and meaningful behaviors.

Neuroplasticity is the brain's ability to change through birthing new neurons continuously, dendrite connections with other cells, and damaged cells throughout one's lifetime. This rebuilding neuroplasticity of the brain results from living in healthy environments and the increasing practice of the knowledge, values, skills, abilities, and habits, which generate neural circuit and network changes that reflect an active brain and a vivid personality. [12] [13]

Further, "Neural chips" are needed for therapeutic purposes of the corpus callosum.

Nerve tissues located deeply in the brain connect the right (hemispheres) with the brain's left. The corpus callosum is a band bridge of the messages between the right half and left half hemispheres. It allows the hemispheres to share information from one side of the brain to another [14].

When the corpus callosum is severed or damaged, communication between the two parts of the inhibited brain, affected individuals, usually is referred to as "split-brain."

Neural chips "are needed individually or/and integrated clusters for matching messages, as the cases of visual, auditory, language, emotion, and motor areas. They are in two parts, and their memory is impaired. They cannot use speech to identify objects visible to their right hemispheres [15].

However, the significant optimal developments will be implanting "Pioneering Neural chips" and the beginning of experimentation with plants' "Tree-Neural chips." [16].

For human pioneering "Neural chips," there will be heavy demands for all kinds of creative and innovative knowledge, skills, and abilities of brainpower or selected ones.

Possible unrest may storm the rise of pioneers in more quantities. Special groups could feel apprehended of the potential tyranny of this group taking over public events of societal life; seize merits and powers in their hands at the expense of the %90 of the population.

These negative feelings popped up when any change may disturb the conventional ratios of the normal curve.

The Author experienced these backward reactions while studying for the two higher degrees in the U.S during 1974-1977. At that time, Bloom's "Mastery Learning" was newly circulating in most American educational institutions. To become mastery knowledgeable or skilled.

Well! Society and institutions will be the more civic advanced, and productive entities.

Highly educated masses occupy themselves with notable causes dedicated to the welfare of the majority, rarely concerned for their interests. These merited groups usually have a solid passion for the prosperity of all others.

Installing digital chips in plants' stems', this matter is tentatively viable in the coming future to strengthen and accelerate the pumping of the nutrition from the roots up to the branches and leaves of the trees, besides protecting trees from savage attacks.

However, what will be exceptionally new is having a chip implanted in the "trunk" of trees to help trigger the nutrition speed and values of ascending to the branches and leaves. In addition, animals will be using AL gadgets in almost ways comparable to humans.

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