AI AND THE HUMAN MIND: DARWIN MAKES IT SIMPLE

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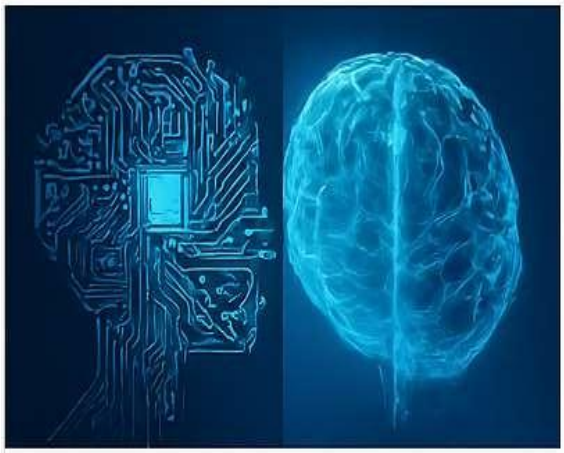
ABSTRACT
Artificial Intelligence Casting its own spell on the life of man, Artificial intelligence is streamlining work and transforming the way the human mind thinks. This paper investigates whether such an increasingly intensive reliance on AI might impact the capacity to adapt our thinking, memory, and problem-solving capacity. It is approached in the framing of the Darwin law of natural selection to give consideration to whether diminished mental stimulation could affect subsequent evolution. Overall, based on neuroscience, psychology, and case studies, we discuss the two sides of the cognitive effect of AI



1. INTRODUCTION

Artificial intelligence has penetrated every aspect of everyday life: navigation system, communication, teaching and treatment. We are using today AI tools in image Generation (are we losing our creativity?), programming (are we losing reasoning?), making presentations (are we losing our sense of thinking?) etc etc. It increases production and, at the same time, decreases mental effort. The principle of descent with modification proposed by Darwin here implies that features that have never been used might wither after long periods of time. Is it possible that in case of further replacement of mental processes by artificial intelligence, the aspects of cognitive activity will take the same way?

The Theory of Evolution by Natural Selection Darwin

Evolution is a result of natural selection which is observed over the course of time and consists in the survival and reproduction chances of individuals with the traits which are more adjusted to their environment being higher compared to the ones of other individuals.

- There is a Change in Populations

The individuals belonging to the same species differ in terms of physical and behavioral characteristics.

- Reproduction of the Brainchild

Animals bear more young than the surroundings can carry and this results in struggle.

- The Fight of Existence

People are forced to struggle with one another to live because of lack of resources.

- Survival of the Fittest

The individuals that possess beneficial characteristics (can be adapted to the environment better) have a higher chance to survive and multiply.

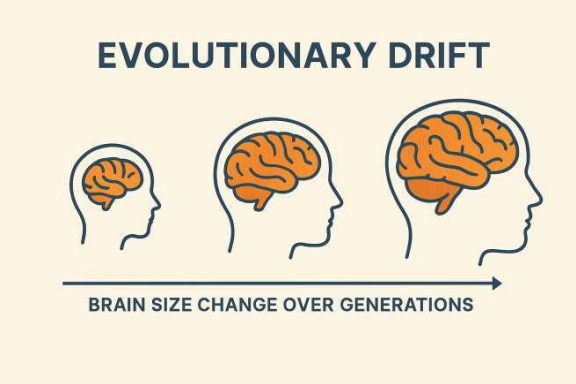
- Heritability of Traits

Advantageous characteristics get transferred to offspring, thus they gain popularity.

- Time Over Speciation

Change may build up over many generations to give rise to other species.

and with the later growth of our mind, our mind has been increased and it has been growing up to be about 2 times what the ancients were in size.



2. AI's Influence on Cognitive Behavior

2.1 AI-Assisted Decision-Making

- *In a 2022 study by Gerlich et al., it was shown that there is a negative relationship between abundant use of AI tools and the critical thinking ability, particularly in the younger users.*

- *In work environments, employees who use AI to make redundant choices displayed slower thinking when compared to workers who have analytical careers.*

Evolutionary Drift-Illustration

2.2 Neuroplasticity and AI Dependence

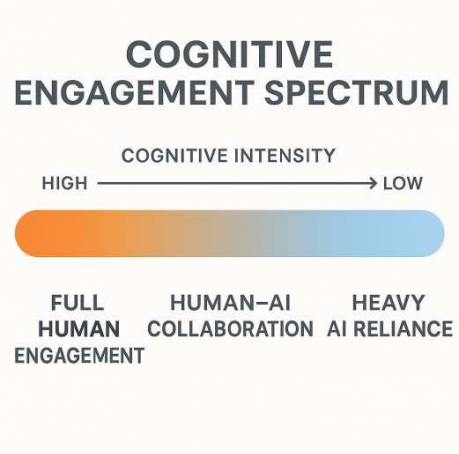
- Neuroplasticity flourishes in adversity. The environments that present reduced stimulation because of AI can cause the deterioration of neural pathways in long-term use.

- However, the use of AI-enhanced neuro feedback on cognitive remediation has proved to have a potential to provide brain reorganization by rewiring strokes in stroke patients brains.

2.3 Psychological Implications

- *The information that is AI-curated can support the confirmation bias, limiting views and making people less critical.*

- *The emotional deregulation based on attention and mood can be viewed as the possible effect of the emotional engineering through social media*
  algorithms.



3. HUMAN MIND, MEMORY AND MENTAL ADAPTATION

3.1 PRIOR TO AND POST AGE OF TECH

Non-calculator era: We used to do math in our head; we even do simple arithmetic businesses today.

Pre-mobile times: a few dozen phone numbers were committed to memory, now half the folks cannot even remember the phone number of the spouse.

3.2 CHANGE OF BEHAVIOR

- There is an increased rate of cognitive offloading through the delegation of mental duties towards AI. In as much as it provides a relief to the mind, it can also constrict thinking.

3.3. CASE STUDIES

In a study conducted on humans by Harvard, it was revealed that humans perform better than AI when it comes to self-orientation due to the ability to change with the environment more than a computer.

- In learning, students who resorted to AI in doing their homework realized poorer problem solving scores as compared to those who employed normal means.

4. Human evolution and PRINCIPLE of DARWIN

4.1 HOW NATURAL SELECTION ENCOUNTERS NEURAL PLASTICITY

- The concept of Darwin: the characteristics that are not used during generations can be lost.

In case cognitive burden is lowered, humans in the future can develop with simpler brains the avoidance of that is speculated by research in the University of Chicago.

4.2 EVOLUTIONARY DRIFT

A 2025 article in ScienceAlert says that AI has the potential to produce more compact brains because of a decrease in cognitive demands.

Social behavior can also be altered in such a fashion that one finds fewer friends, less capacity to empathize as their interaction mediated by AI.

4.3 SYMBIOSIS OF HUMAN-AI

AI can be used creatively to induce cognition. As an illustration, the AI-assisted therapy enhances flexibility of mind and emotional control.

The trick is to be proactive, not a passive dependent.

5. Comparative Analysis: AI vs Human Cognition

Feature	Human Mind (Pre-AI)	AI-Assisted Thinking
Problem Solving	Abstract, intuitive, emotional	Algorithmic, fast, pattern-based
Memory	Manual recall, associative	Externalized, searchable
Creativity	Original, symbolic	Limited to learned patterns
Decision-Making	Based on experience, empathy	Based on data, risk models

6. References and Supporting Research

- Gerlich, M. (2025). ***AI Tools in Society: Impacts on Cognitive Offloading***. MDPI Journal
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- De Freitas, J. et al. (2024). ***How Humans Outshine AI in Adapting to Change***. Harvard Working Knowledge
- ***AI Could Shrink Our Brains*** – ScienceAlert
- ***Are Smaller Brains the Future?*** – SciTechDaily
- ***Smaller Brains? Fewer Friends?*** – The Conversation

7. Conclusion

AI is not something that will harm on its own but rely on them and you will destroy the cognitive strength. The principle of Darwin makes us remember: what does not get used, we can lose. We should all search our minds to be able to survive in a world that is driven by artificial intelligence, and the technology is a tool, not a crutch.

It is not a smarter machine that is coming and taking away the future, but a smarter human being made up to understand when he needs to think on his own.

Smarter Humans