

# Conscious Learning

**Humans and Machines**

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## **Preface**

The Third World Science and Technology Development Forum co-sponsored by UNESCO published “Top 10 Scientific Issues Concerning Human Social Development 2021”. In the Information Field, the first issue is: “how does the human brain process information and how do humans form intelligence?” However, the question is unsolvable without asking how the brain learns consciousness. This book provides a more systematic definition for consciousness as “longer and higher contexts” to improve the *ad hoc* dictionary definition. The dictionary definition does not help laymen much about what consciousness is systematically.

This volume is a popular science book for laymen. It informally describes an approximate but holistic solution to the above No. 1 question, as well as four deeper Holy Grail questions: How does a brain work? How does the brain learn? How does its consciousness arise? How does learning require consciousness? Their answers were still largely enigmatic before this book. Using Developmental Network 3 (DN-3), this book discusses fruit flies, humans and future conscious robots. The material in this book will make your daily life more enjoyable and more relevant to science.

Although many conflicts cause human suffering, wars are at the top of human suffering. The latest war is the Russian-Ukraine war. What went wrong? What is

the scientific reason for war? Can humans avoid all future wars? Yes. Avoiding war is a problem of science. This book will tell you how to solve this problem.

This book will provide scientific evidence that major government officials in the U.S. government lacked consciousness. Therefore, the U.S. Constitution needs a major amendment. This amendment should declare that U.S. governing is a subject of science. It should require the U.S. president and legislators to study brain science. U.S. voters would see how US Presidents' knowledge about brain science greatly affects the safety of this nation.

If you wonder how artificial intelligent (AI) is doing, this book tells you a dismal truth of AI. Worldwide, almost all published AI performance data, known as “deep learning” or under other names have been falsely fabricated through deleting data and therefore greatly inflated.

However, if you are young and wonder which area you should enter for your career, you should consider AI because the AI's dismal truth is exposed in this book and a promising new AI route is identified here. This new route is called conscious learning by machines. This route resulted from the solution to the above four Holy Grail solutions.

If you are looking for an area to invest, moderate risk and high pay off, this book provides convincing evidence that humans have reached a major breakthrough in their long and frustrating search for paths toward human-like intelligent machines. The current bottleneck in AI has been changed to design and fabrication of brainoid chips for conscious learning. A little-known startup is doing that. This startup is called

GENISAMA that the author created. The current bottleneck of conscious learning machines is in funding, manpower and a lack of public awareness of the necessity of conscious learning. Conscious learning chips will make higher-level autonomous driving assistant systems available for mentally distressed drivers and elderly drivers, greatly increase driving safety.

In summary, the major lack in relatively less developed countries, like Russia, China, Iran, Cuba and North Korea, is exactly the same as the major lack in more developed countries, like the U.S., the U.K., France, Germany, and Japan. These nations all lack consciousness in the governments. Only the degrees of lack are different. In other words, wars and hostilities among rival countries are all due to a lack of the same, regardless of whether the government officials are formally elected, informally elected, through violent revolutions, via coups or family inheritances. The same lack of consciousness is true also in the scientific community worldwide. Establishments in the scientific community always, intentionally or unintentionally, resist new sciences (e.g., conscious learning), as threats to its status quo. They further promote and protect research misconducts.