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**The Human-Machine Team**  
**Brigadier General Y.S**

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# THE HUMAN MACHINE TEAM

How to Create Synergy between  
Human & Artificial Intelligence that  
will Revolutionize Our World

**BRIGADIER GENERAL Y.S**

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## AN ELEVATOR SPEECH

“Can you explain the main idea of your book in 60 seconds?” My first instinct is to answer, “No! Definitely not! This is a book. I’ve worked on it for hundreds of hours and if the subject interests you, you have to invest at least a few hours reading and learning.” Yet on second thought, in the Digital Era (DE), if you don’t know how to explain a complicated issue in a few simple sentences, you cannot explain it in thousands of words and many hours of study.

Today, we are only at the threshold of the acceleration of the Digital Era. The riddle this book seeks to solve is how to lead nations and organizations in the coming years, when Artificial Intelligence (AI) is going to dramatically change the world. This book is somewhere between theory and practice and gives birth to merging ideas that are taking place in between paradigms. Since cannot imagine the future of AI in 2040 or beyond, we should prepare ourselves for the next 5-10 years when we can get ready for the distant future. A machine can use big data to generate information better than humans.

However, a machine can't understand context, doesn't have feelings or ethics, and can't think "out of the box." Therefore, rather than prioritizing between humans and machines, this book is about The Human-Machine Team ("super-cognition") and about the collaboration between human intelligence and artificial intelligence. *The Human-Machine Team* will address national security challenges and threats, lead to victory in war, and serve as a growth engine for humankind. It also offers the novel idea of "FAST" (Foundations, Acceleration, and Singularity Time) as a guiding concept of how to lead nations and organizations to a successful merger of human intelligence and artificial intelligence. The final section, "Plan of Action," is a practical program on how to fulfill these new concepts.

## PREFACE

October 27, 2018, Pittsburgh. At 9:45 a.m., Robert Bowers barged into the Tree of Life - Or L'Simcha Congregation and murdered three people who were in the middle of celebrating a baby-naming ceremony. Then he went downstairs and murdered four people who were praying. Next, he ran up to the third floor, where there was an exchange of fire with police. By the time he was finally subdued, he had killed 11 people and wounded six. An hour before the attack, Bowers had posted the following on social media:

"HIAS [a group that helps refugees] likes to bring invaders in that kill our people. I can't sit by and watch my people get slaughtered. Screw your optics, I'm going in."

Now imagine that an hour before the murderous attack, a red light flashed in the synagogue with a sign that read "Beware: There is an unfamiliar cellphone in the synagogue compound." Imagine that during the few minutes Bowers was in the synagogue parking lot, a camera - equipped with facial recognition - identified Bowers, alerted police to an imminent threat, and

activated an alarm inside the synagogue for people to stop him. This alarm was based on the reasoning that months prior to the attack, Bowers had blamed Jews for helping migrants and that he also had a license to carry firearms. Imagine that two minutes later, another emergency alarm went out to the police and to members of the synagogue, based on his last post on social media that read, "I am going in."

Bowers was not on a watch list of suspected terrorists and was not known to law enforcement. However, he definitely had the potential to be known as a potential terrorist by a team comprised of humans and AI machines that work together. Human intelligence cannot connect the dots and build the profile of a suspect like Bowers – not even 20,000 analysts with 20,000,000 years of time. In addition, machine-learning by itself cannot make predictions about Bower's threat potential or decide to investigate him. However, The Human-Machine Team will lead us to a successful merger of human intelligence and artificial intelligence to address this type of threat in advance. The concept of FAST (foundations, acceleration, and singularity time) will guide us in achieving this ability.

The first step for data science is the data, and therefore we must build our data foundations in a new way that will enable this learning. In addition, we must choose specific, small capabilities and accelerate them – for example, building an AI machine to find an anomaly in a specific place and figuring out that there is a new situation that needs to be checked (like the first time that a new cellphone is in the location), and finally, to dream about the far future (singularity time) and discover

ideas from the future that will also enable the current acceleration of AI. *We have no choice!* I invite you to join me on a fascinating and exciting journey to *The Human-Machine Team*, a mutual journey to discover the specific relevant steps to fulfill the potential of AI – especially, what we can do to lead our nations and organizations to a future that has already become the present, and how we should do it – starting yesterday.