

DESSERT2024 ROUND TABLE: “*Digital Twin or Dark AI*”

Dr. Andrzej Rucinski, Professor Emeritus,
University of New Hampshire, USA

Ray Garbos, Fellow Emeritus,
Lockheed Martin, USA

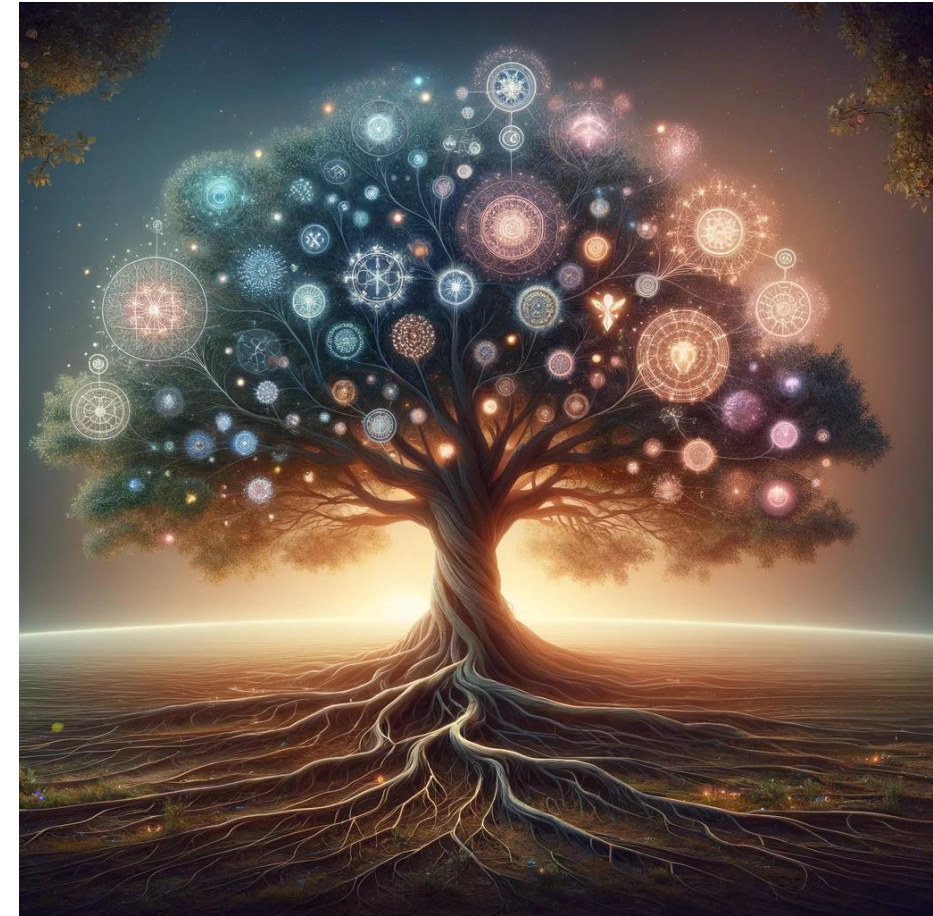
Dr. Vyacheslav Kharchenko, Professor,
KHAI, Ukraine

Dr. Ted Kochanski, Chief Scientist
Sensors, Signals, Systems, USA

Adam Ustynowicz, Film Director,
Poland

ChatGPT-40,
OpenAI, USA

DESSERT2024 Audience,
Greece



ChatGPT-40, OpenAI, USA

What is AI?

1956: In the summer of 1956, John McCarthy, a mathematics professor at Dartmouth College, New Hampshire, USA, convened a small group of researchers from various disciplines for a "Solvay-style" workshop exploring the possibility of creating "thinking machines."

2024: Nobel Prizes & AI

- The Nobel Prize in [AI & Physics] 2024
 - John J. Hopfield and Geoffrey E. Hinton
 - “for foundational discoveries and inventions that enable machine learning with artificial neural networks”
- The Nobel Prize in [AI & Chemistry] 2024
 - David Baker
 - “for computational protein design”
 - Demis Hassabis and John M. Jumper
 - “for protein structure prediction”

Round Table Purpose

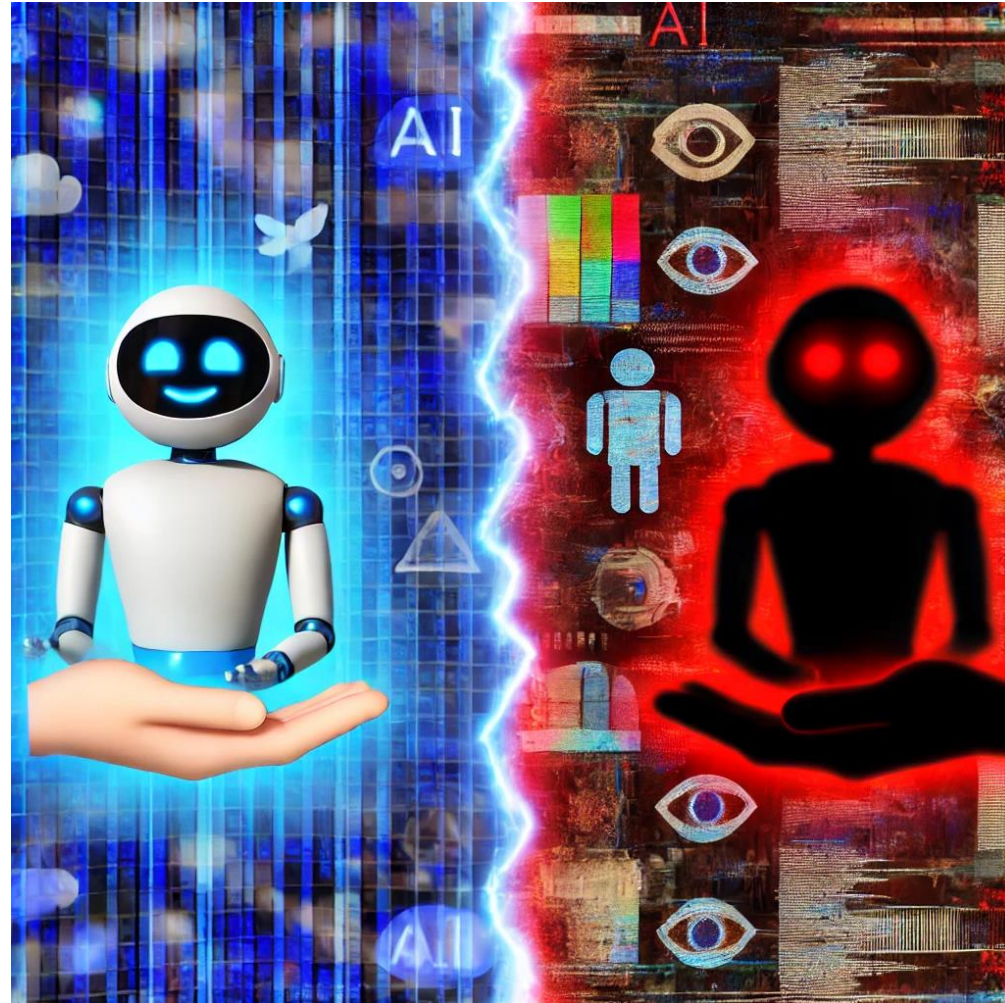
The aim of the “Digital Twin or Dark AI” round table is to initiate the development of a knowledge base for dependable AI

**And to initiate the DESSERT:
AI Dependability Workshop**

AI Pathologies and Challenges

- ❖ **The absence of AI-based business models (Who is profiting?)**
- ❖ **The vast demand for financial and energy resources**
- ❖ **Safety and security concerns**
- ❖ **Verification and validation challenges**
- ❖ **Issues with observability, controllability, and legal frameworks**
- ❖ **Trust and dependability concerns**
 - ❖ **Indistinguishable: Images, Video, Audio “Fakes”**
- ❖ **The rise of multiple universes populated by AI agents**
- ❖ **More...**

Digital Twin or Dark AI

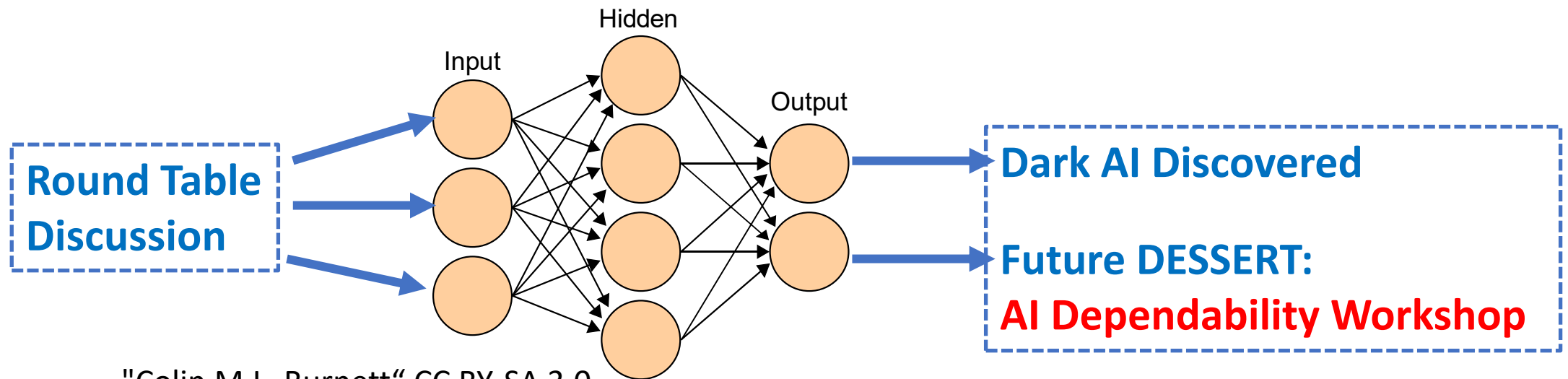


ChatGPT-40, OpenAI, USA

Round Table Structure

- **DESSERT2024 Audience, Greece**
- **Ray Garbos, Fellow Emeritus, Lockheed Martin, USA**
- **Dr. Vyacheslav Kharchenko, Professor, KHAI, Ukraine**
- **Dr. Ted Kochanski, Sensors, Signals, Systems, USA**
- **Adam Ustynowicz, Film Director, Poland**
- **ChatGPT-4o, OpenAI, USA**

DESSERT2024 ROUND TABLE: “*Digital Twin or Dark AI*”



"Colin M.L. Burnett" CC BY-SA 3.0

DESSERT2024 ROUND TABLE: “*Digital Twin or Dark AI*”

- Witamy w naszej dyskusji
- Καλώς ήρθατε στη Συζήτησή μας
- Welcome to our Discussion
- Ласкаво просимо до нашої дискусії
- Bienvenue dans notre discussion
- Willkommen zu unserer Diskussion
- Bienvenido a nuestra discusión



Plato and Aristotle walking and disputing in the Λύκειον
Detail from Raphael's The School of Athens (1509–1511)



•File:Sanzio 01 cropped.png
•Created: 1509
•Uploaded: 21 October 2015

Raphael - Raffaello Sanzio
cropped

DESSERT2024 ROUND TABLE: “*Digital Twin or Dark AI*”

- Dziękujemy za przyłączenie się do naszej dyskusji.
- Ευχαριστούμε που συμμετείχατε στη συζήτησή μας.
- Thanks for joining our discussion.
- Дякуємо, що приєдналися до нашої дискусії.
- Merci d'avoir rejoint notre discussion.
- Vielen Dank, dass Sie an unserer Diskussion teilgenommen haben.
- Gracias por unirse a nuestra discusión



Plato and Aristotle walking and disputing in the Λύκειον
Detail from Raphael's The School of Athens (1509–1511)



•File:Sanzio 01 cropped.png
•Created: 1509
•Uploaded: 21 October 2015

Raphael - Raffaello Sanzio
cropped