



**THE
SK[AI]**

**IS
FALLING!**



Jeff Man

Sr. Information Security Consultant
InfoSec Curmudgeon
OBS Global

@MrJeffMan

301-310-4275

jman@obsglobal.com

ihack

My Background

- **13 years with the Department of Defense**

- **Certified Cryptanalyst**
- **Designed Cryptosystems and Cryptologic Aids**
- **Founding Member of Systems & Network Attack Center**

- **20 years as a PCI Qualified Security Assessor (QSA)**

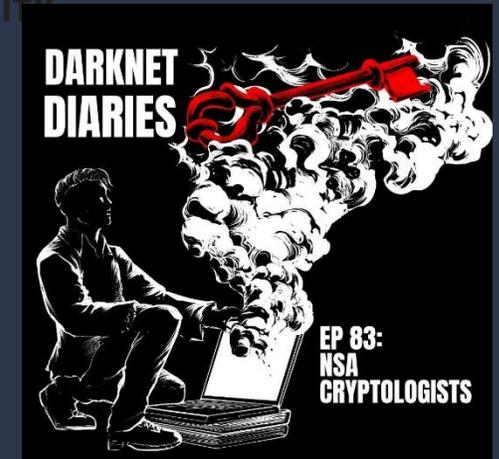
- **Lead Assessor/Assessment Team Member**
- **Trusted Advisor**

- **3 years with a Software Vendor**

- **PCI Subject Matter Expert**
- **Thought Leader**
- **Security Strategist**

- **30 years of commercial professional services**

- **Penetration Testing**
- **Vulnerability Assessments**
- **Security Architecture**



I'm a Co-Host on Paul's Security Weekly



<https://securityweekly.com>

Not Used:
Too fancy,
Too colorful



Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Funerals, Weddings, Date night, Speaking engagements

I'm a hacker (and I have the black hoodies to prove it!)

EP 83: NSA CRYPTOLOGISTS

advanced persistent threat

19 January 2021 | 82:56





JEFF MAN

NSA RED TEAM HACKER



NSA "Red Team" Hacker | Jeff Man | Ep. 269

SECURITY

TALES

SEPT. 8
2018

FROM THE

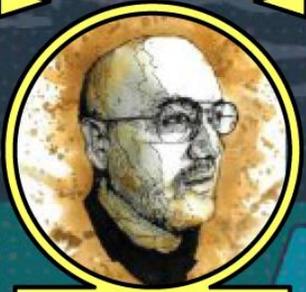
3:00pm

CRYPT

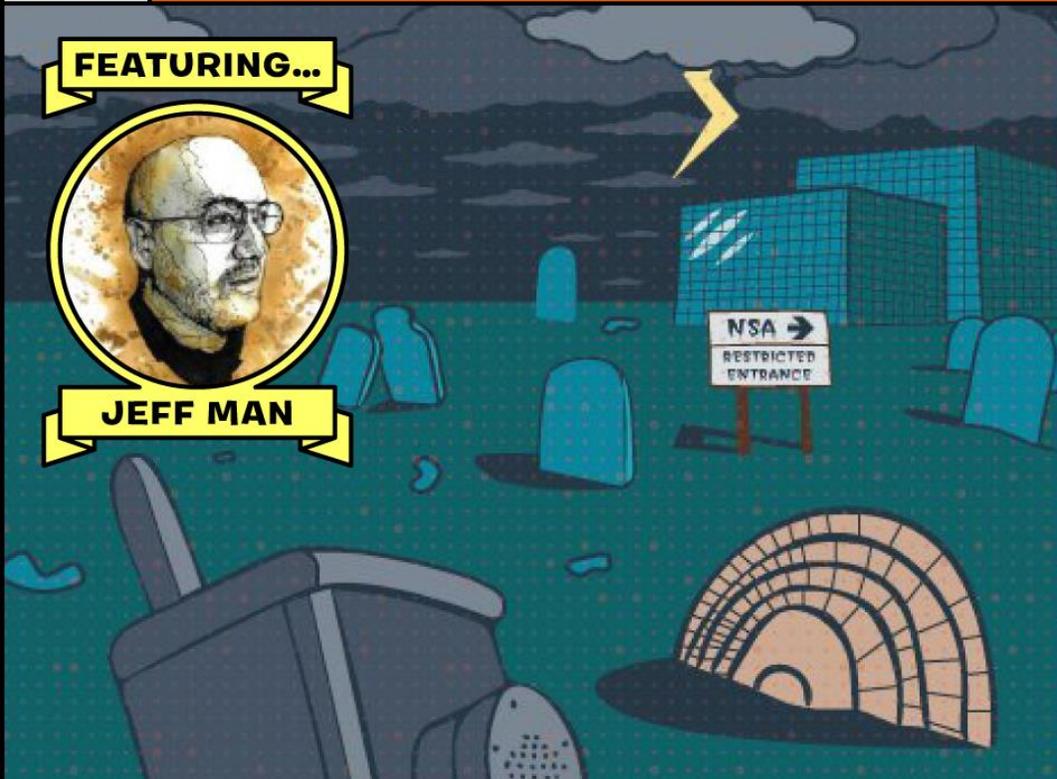
...ANALYST

CORNCON
IV

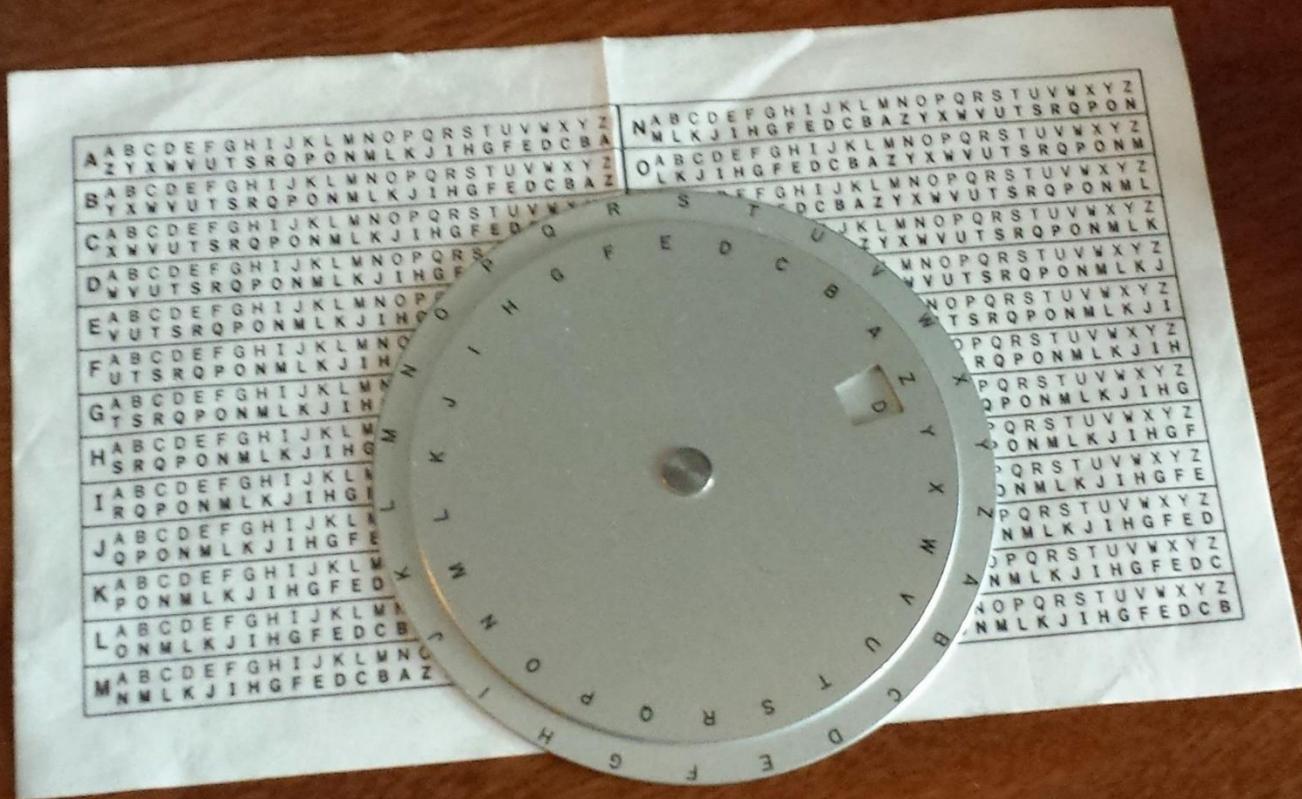
FEATURING...



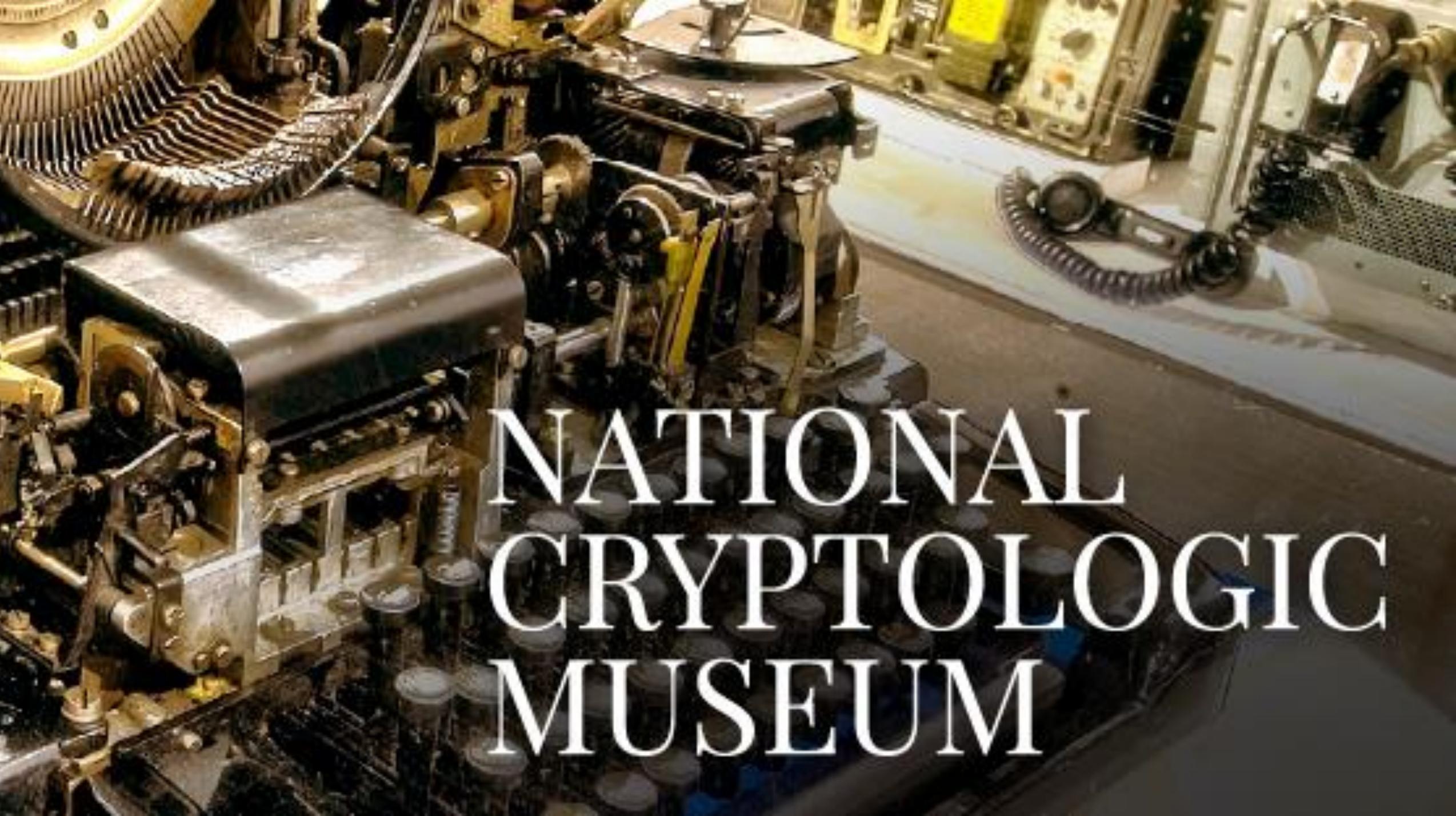
JEFF MAN



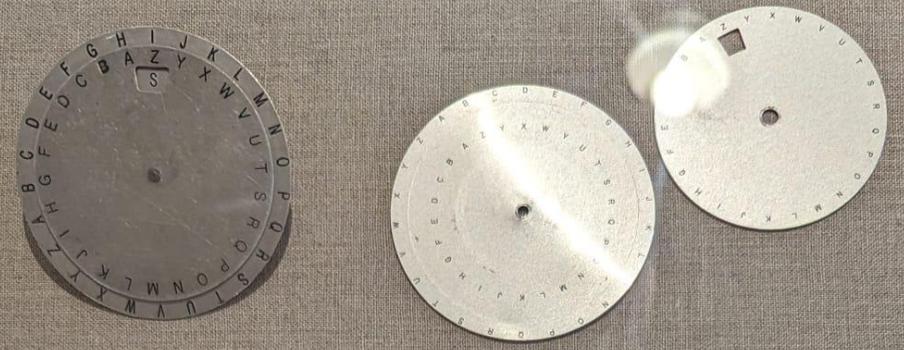
I began my career as
a Cryptologist for NSA



The Vigenere "Wheel" – Specialized Cipher Disc



NATIONAL
CRYPTOLOGIC
MUSEUM



(Jeff) Man Reinvents the Wheel



Special operators get all the toughest jobs. The most secret. The most important. The most dangerous.

So NSA cryptanalyst Jeff Man thought he could make their work just a bit easier.

When units needed to send secret communications, they had to tediously cipher and decipher using one time pads. Man developed this HAL-001 Vigenere Wheel, more commonly known as the Whiz Wheel (yes, we know), to simplify the one time pad trigraph system of over one hundred 3-letter combinations. This cut down on time and chances for human error.

Less time spent on encryption/decryption, more time doing the stuff they would make movies about... in about 25 years or so...

HAL-001 Vigenere (Whiz) Wheel Prototype, Jeff Man, 1988

HAL-001 Vigenere (Whiz) Wheel Production Model, NSA, 1988

Pen
Testing
comes to
NSA

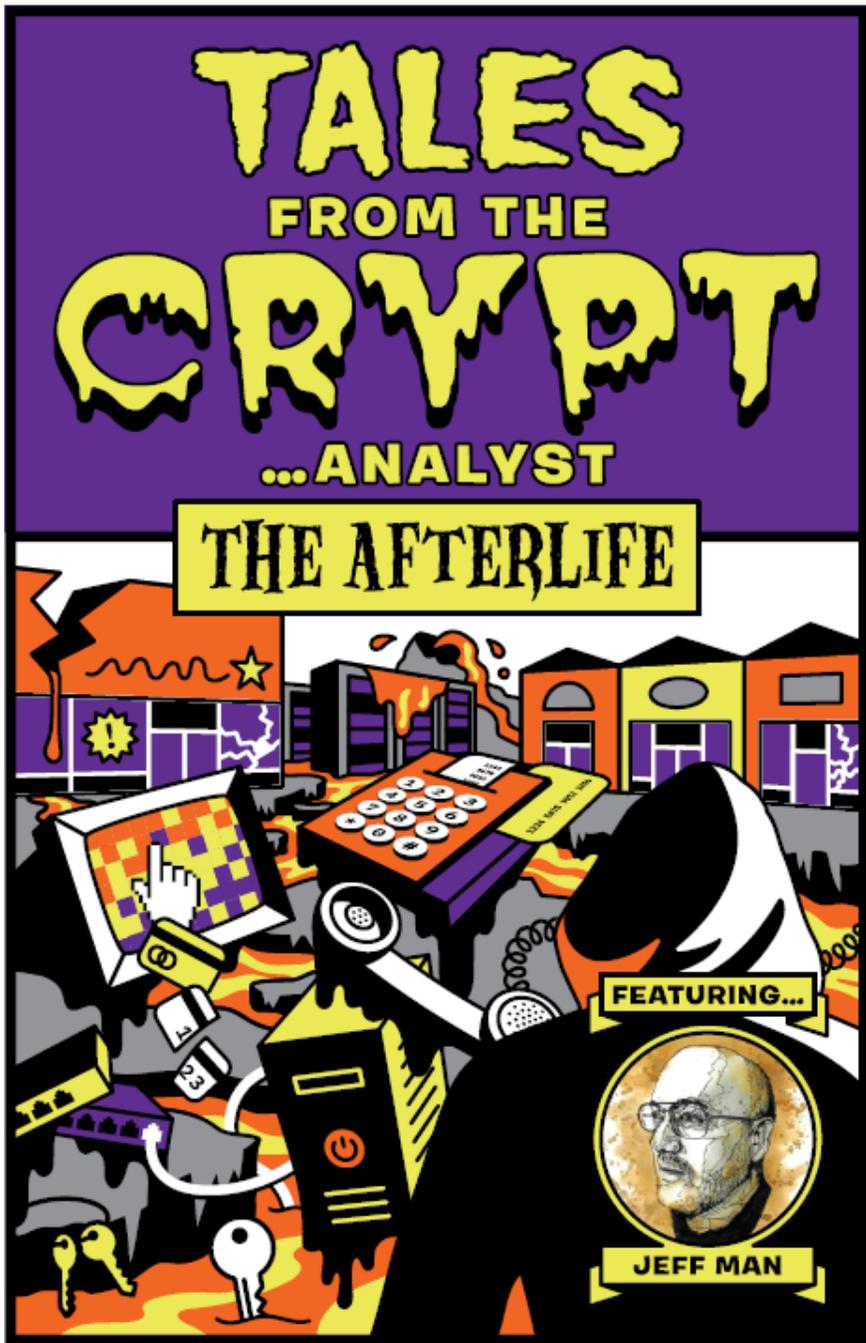
SECURITY

MORE TALES
FROM THE
CROWD
...ANALYST

Results. Guaranteed.



Actual photos of my cubicle in "The Pit"



Thus started
my
adventures in
the private
sector

Why Give a talk on AI?



November 1, 1952

The first [Hydrogen device] test took place on the small Pacific island of Elugelab at Enewetak Atoll in the Marshall Islands. The explosion, nicknamed the "Mike Shot", was very successful.





Greetings

TO ALL WHO SHALL SEE THESE PRESENTS

Know Ye: All Soldiers, Sailors, Airmen and Civilians
in the service of the United States of America
We the Undersigned do hereby certify that

EDWARD M. MAN

Participated in

Operation Ivy

Atomic Tests at Eniwetok Proving Ground, Marshall Islands

Conducted by:

Army, Navy, Air Force and Atomic Energy Commission

Fall of 1952

William H. Tunnicliffe

Major General, U.S. Army
Commander, Joint Task Force 132

Alvin C. Graves

Deputy for Scientific Matters

James B. Bell

Captain, U.S. Navy
Deputy for Navy

Walter S. Egan

Brigadier General, U.S. Air Force
Deputy for Air Force

Carl B. Smith

Carl H. Williams

Rear Admiral, U.S. Navy

Fredrick E. Slantberg

Brigadier General, U.S. Air Force



35'

11' 30"

2'

I Grew Up With Science Fiction



April 2, 1968

2001: A Space Odyssey premieres in Washington D.C. at the Uptown Theater



UPTOWN

UPTOWN VISION

CARDS



Large Format Film History

"Almost like a real web site"

IN70MM.COM

- [Search](#) | [Contact](#)
- [News](#) | [e-News](#)
- [Rumour Mill](#) | [Stories](#)
- [Foreign Language](#)
- [Auf Deutsch](#)

WHAT'S ON IN 70MM?

70MM FESTIVAL

- [Karlsruhe](#) | [Gentofte](#)
- [Krnov](#) | [Varnsdorf](#)
- [Banská Bystrica](#)
- [Oslo](#) | [Bradford](#)

TODD-AO PROCESS

- [Films](#) | [Premiere](#)

70mm Presentations in Washington, DC

A Chronology of 70mm Large Format Exhibition, 1956-Present

Compiled by: David Ayers & [Michael Coate](#)

Stanley Kubrick's '2001: A Space Odyssey' world premiere advert, Washington Post, 2nd April 1968

What follows is a chronology of 70-millimeter six-track stereophonic sound feature-film presentations in the Washington, DC region of the USA.

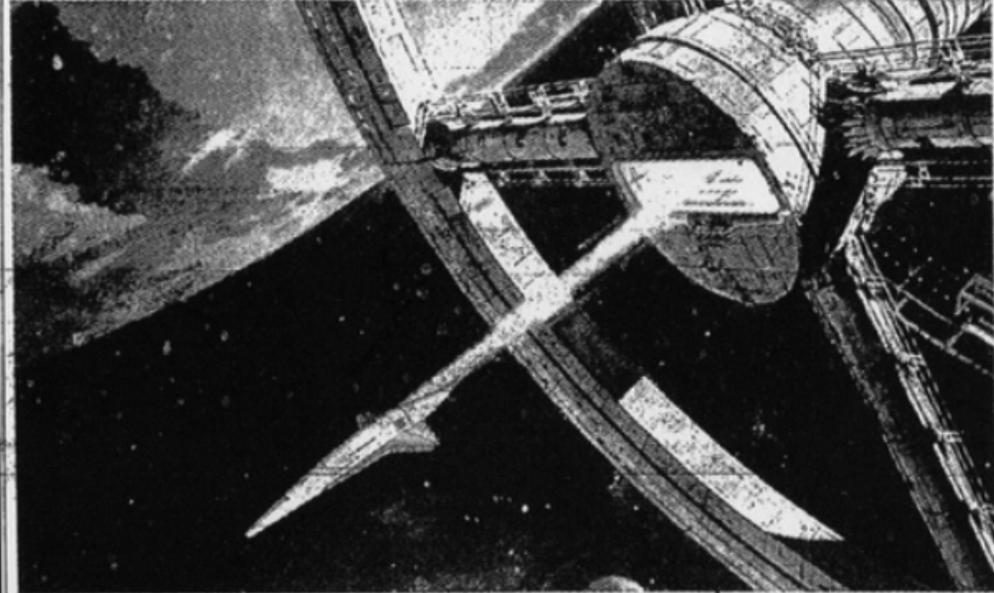
The focus of this work is 5-perf 70mm feature films and the cinemas in which they were exhibited. Short subjects, 8-perf and 15-perf (IMAX, Iwerks, etc.), Special Venue presentations, and some premiere events have not been included (but consideration will be given to adding them in a revision). The Kennedy Center, in particular, held numerous premieres and special screenings, and while the venue was not equipped with 70mm projection, they did screen 35mm prints interlocked with discrete audio print-masters. Such presentations, in this draft at least, have not been included in the chronology.

The emphasis here is on the titles that received publicly promoted, commercial exhibition in 70mm and their playdates. To facilitate an easy-to-reference title- and date-based layout, no details have been provided pertaining to the brand of 70mm (i.e. Todd-AO, Super Panavision, Ultra Panavision, Cinerama, D-150, etc.) or technical particulars of each presentation (i.e. O-neg source, inter-neg source, blow-up, pillarboxed, letterboxed, Dolby A, Dolby SR, five screen channels vs. three, baby boom, split surround, digital sound, etc.).

World Premiere
TONIGHT ★
at 8:30 p.m.

Come Join the Festivities!
LIGHTS! RADIO! CELEBRITIES!
 PRODUCER STANLEY KUBRICK
 IN PERSON Co-Author ARTHUR C. CLARKE
 STARS KEIR DULLEA · GARY LOCKWOOD

An epic drama of adventure and exploration!



YOU VISIT SPACE STATION ONE: The First Step In An Odyssey That Will Take You To The Stars and Beyond.

MGM PRESENTS A STANLEY KUBRICK PRODUCTION

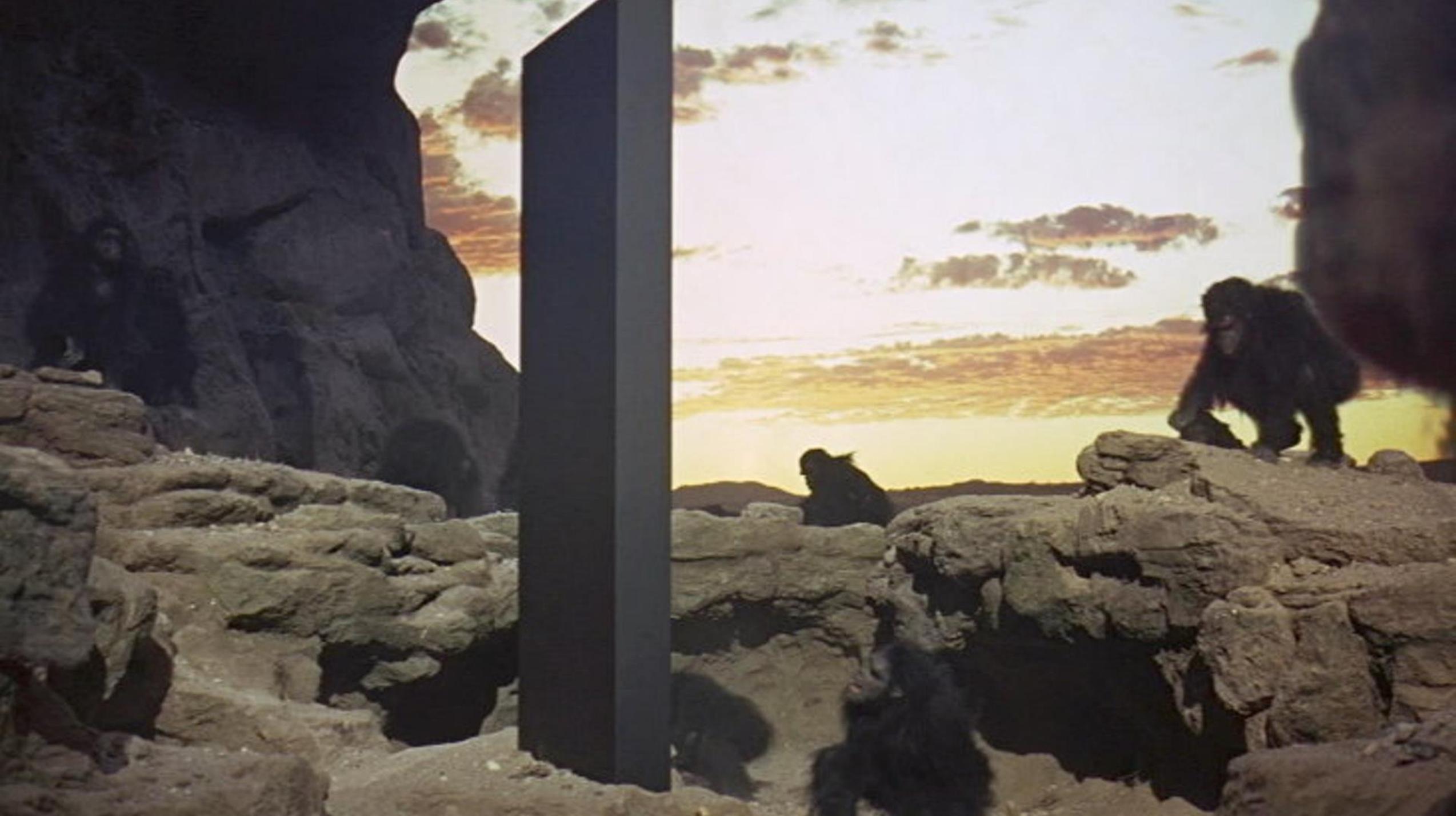
2001: a space odyssey

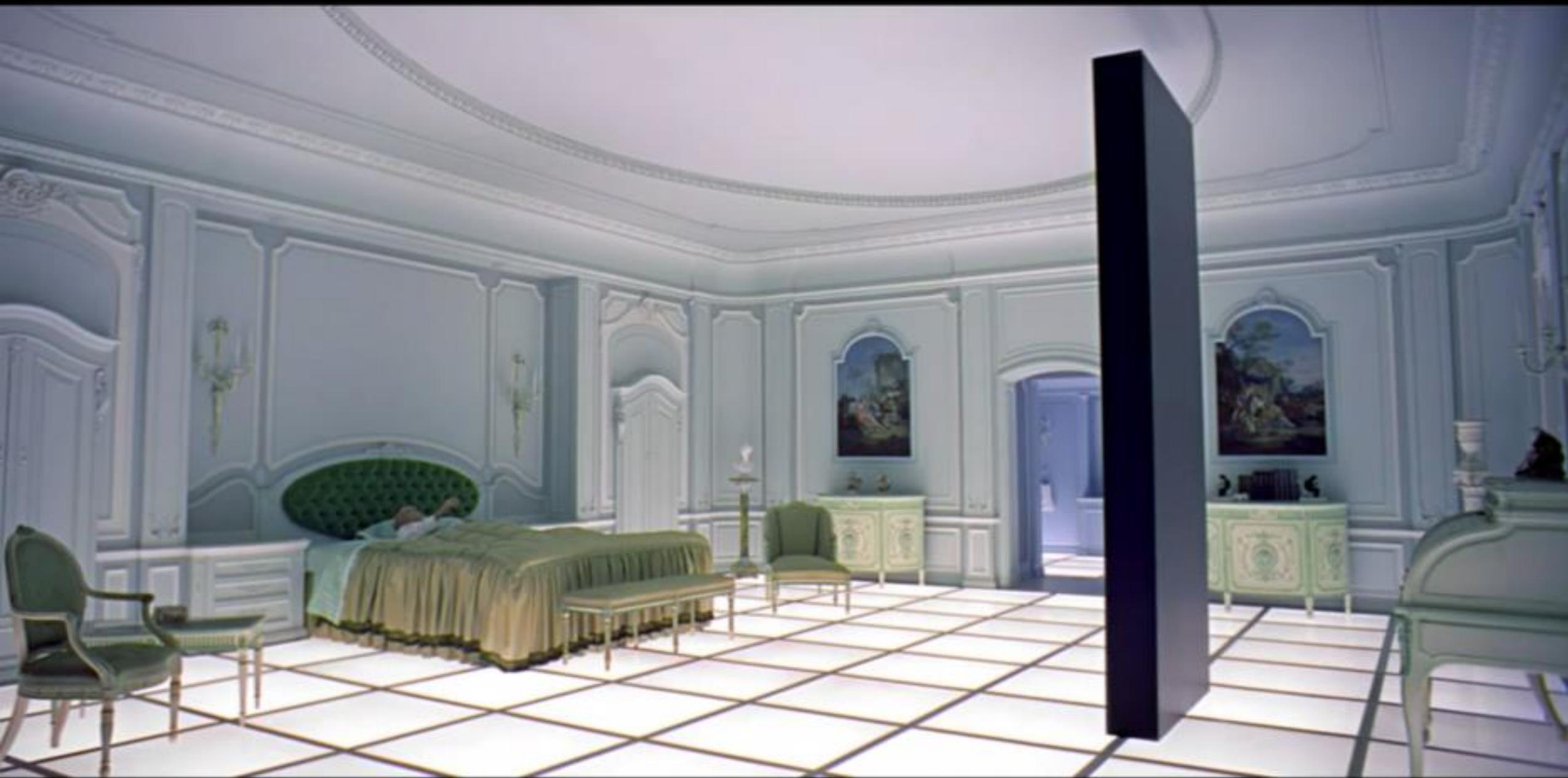
CINERAMA[®] Super Panavision[™] and Metrocolor

RESERVED SEATS NOW at BOX OFFICE or BY MAIL

SCHEDULE OF RESERVED SEAT PERFORMANCES AND PRICES

WATS. 12:00 p.m. Wednesday	Rate: \$1.75—Orch. & Logo \$2.00
WATS. 7:00 Sat. Sun. & Hols.	Rate: \$2.00—Orch. & Logo \$2.50
EVIS. 8:30 p.m. Mon. thru Thurs.	Rate: \$2.00—Orch. & Logo \$2.50
EVIS. 10:30 p.m. Fri. Sat. & Hols.	Rate: \$2.50—Orch. & Logo \$3.00





An unusual
and important
motion picture
from the
author of
"the Bridge
on the
River Kwai"!



A world
gone
mad!

20th Century-Fox presents

CHARLTON HESTON

PLANET OF THE APES

IN AN ARTHUR P. JACOBS PRODUCTION

PANAVISION® Colour by DE LUXE



*Let's talk
A.I.*



August 29, 1997

A Skynet funding bill is passed in the United States Congress, and the system goes online on August 4, 1997, removing human decisions from strategic defense. Skynet begins to learn rapidly and eventually becomes self-aware at 2:14 a.m., EDT, on **August 29, 1997**.

InterConnect
2017

Experience

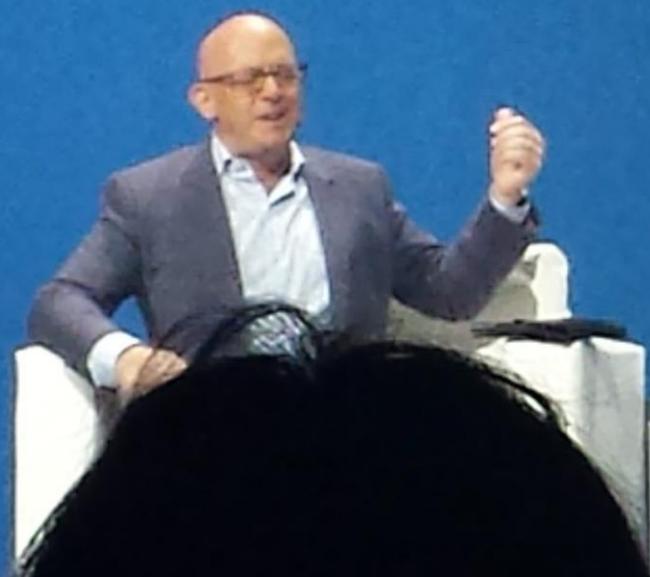
March 19–23
MGM Grand & Mandalay Bay
Las Vegas, NV



InterConnect
2017

IBM





Command Center

CAMBRIDGE, MA

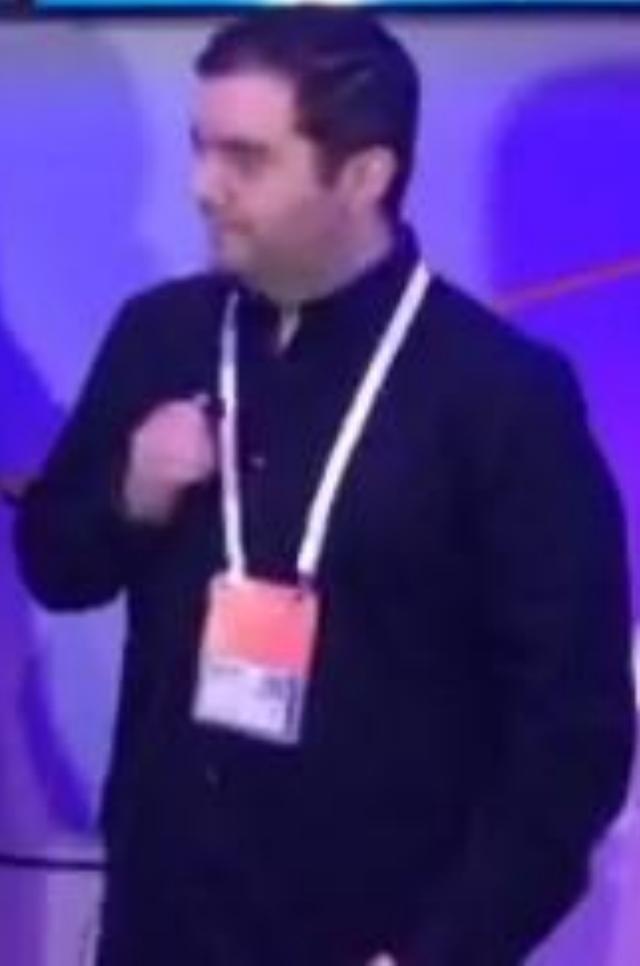
ForceCommand



IBM X-Force Command C

CAMBRID

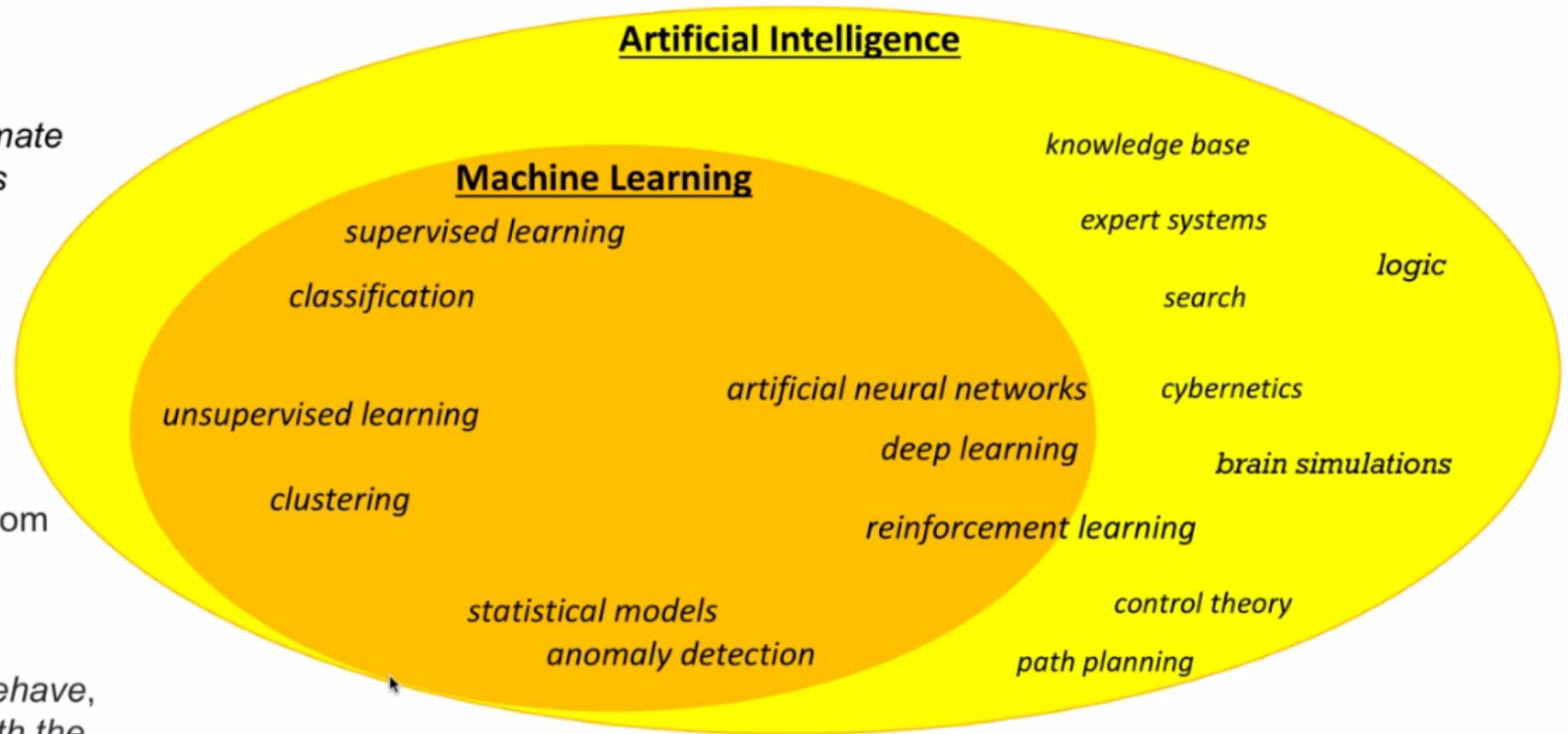
ibm.com/security/XForceCommand



Touch me,
I'm interactive

where does machine learning fit in?

- **Statistics**
 - *summarize, infer, estimate with formal guarantees*
- **Data mining**
 - *human-driven pattern discovery in data*
- **Machine Learning**
 - *models learn to predict/generalize from data*
- **Artificial Intelligence**
 - *autonomous agents behave, reason and interact with the world*





 Tech Segment: Jeff's Trip to IBM InterConnect - Pa...  Share



Watch on  YouTube

I was recently asked to represent “Paul’s Security Weekly” as an “influencer” at the IBM InterConnect 2017 conference held in Las Vegas from March 19-23rd. I wrote about my expectations and goals prior to the

**GET DAILY EMAIL
UPDATES**



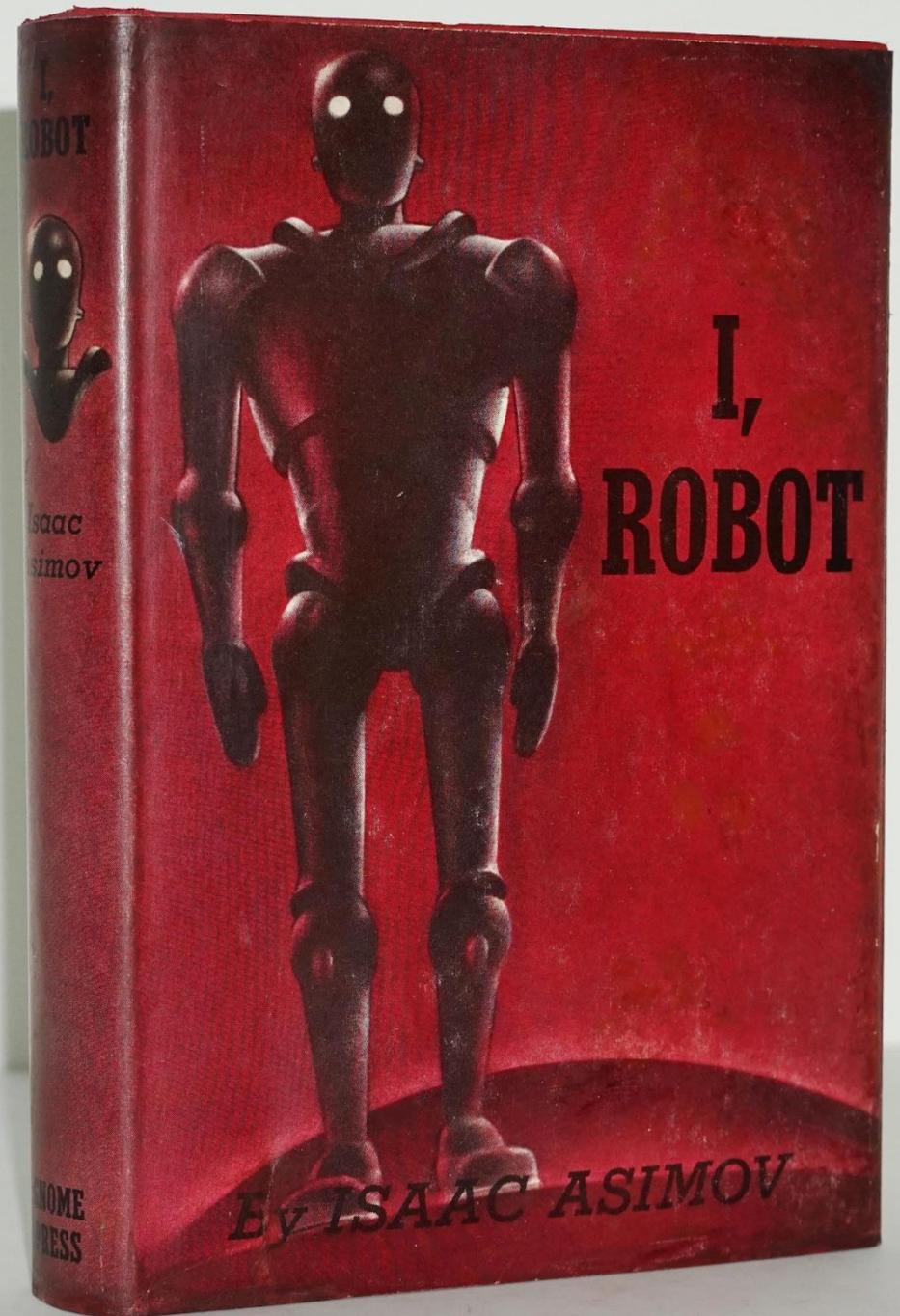
Man Versus Machine: IBM Brings Science Fiction to Life

Science Fiction Canon –robots and computers

How well do you know your killer robots

Isaac Asimov wrote the book on robots!

I, Robot is a fixup collection of science fiction short stories by American writer Isaac Asimov. The stories originally appeared in the American magazines *Super Science Stories* and *Astounding Science Fiction* between 1940 and 1950. The stories were then compiled into a single publication by Gnome Press in 1950, in an initial edition of 5,000 copies.



Isaac Asimov



ASIMOV'S THREE LAWS OF ROBOTICS

1. A ROBOT MAY NOT INJURE A HUMAN BEING OR, THROUGH INACTION, ALLOW A HUMAN BEING TO COME TO HARM.

2. A ROBOT MUST OBEY ORDERS GIVEN TO IT BY HUMAN BEINGS, EXCEPT WHERE SUCH ORDERS WOULD CONFLICT WITH THE FIRST LAW.

3. A ROBOT MUST PROTECT ITS OWN EXISTENCE AS LONG AS SUCH PROTECTION DOES NOT CONFLICT WITH THE FIRST OR SECOND LAW. _

BENIGN – wants to help humanity thrive
HOSTILE – sees humanity as the problem
FLAWED – something goes wrong

SHALL WE PLAY A GAME?

GREETINGS PROFESSOR FALKEN

HELLO

A STRANGE GAME.

THE ONLY WINNING MOVE IS
NOT TO PLAY.



**So what's
bothering me?**



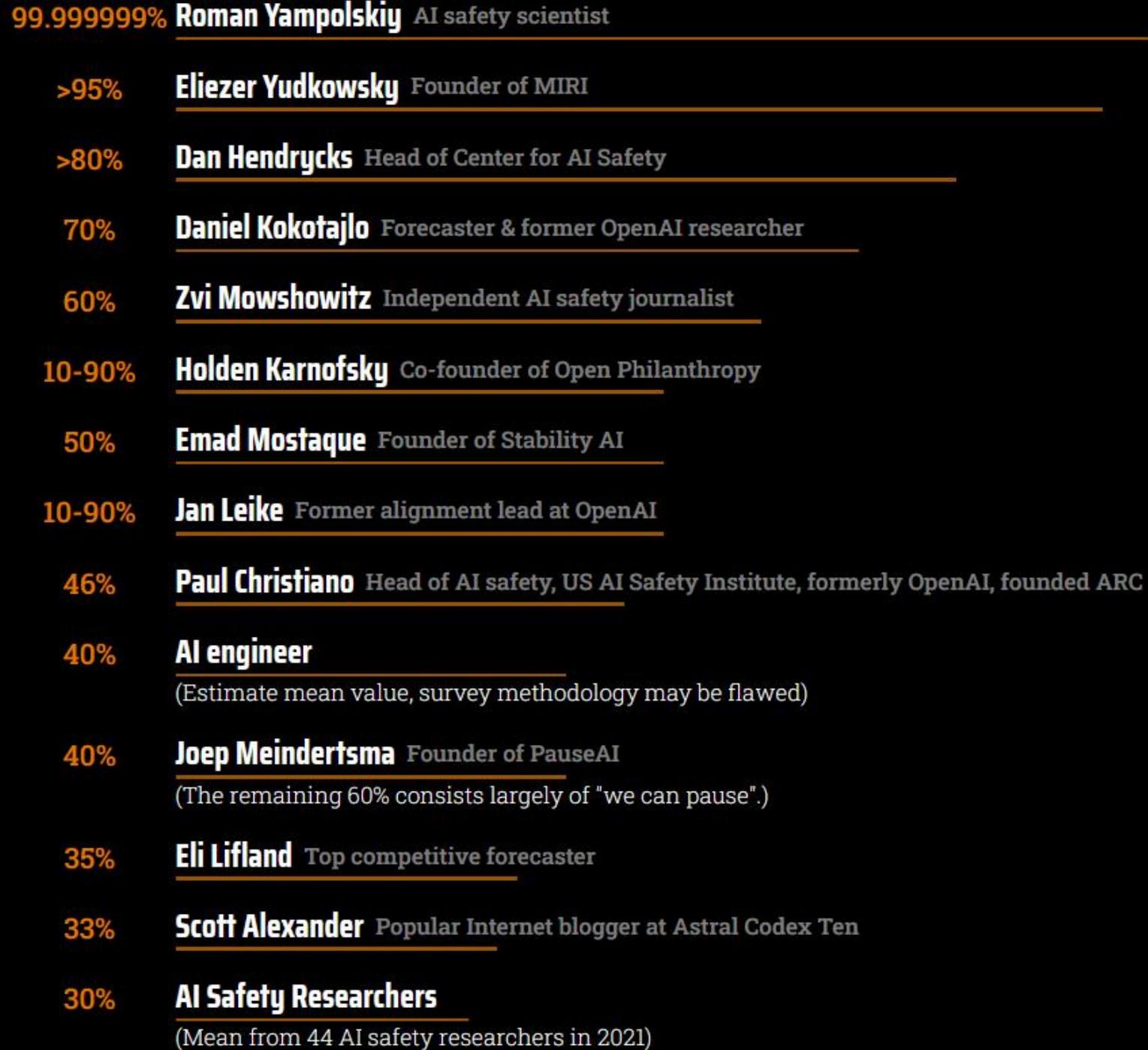


$P(\text{doom})$

probability of existentially
catastrophic outcomes

What are the Odds?

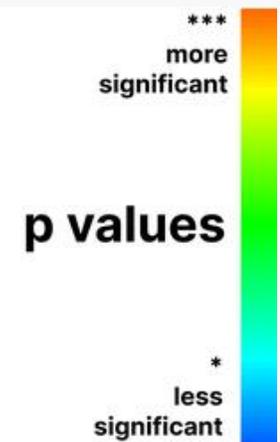
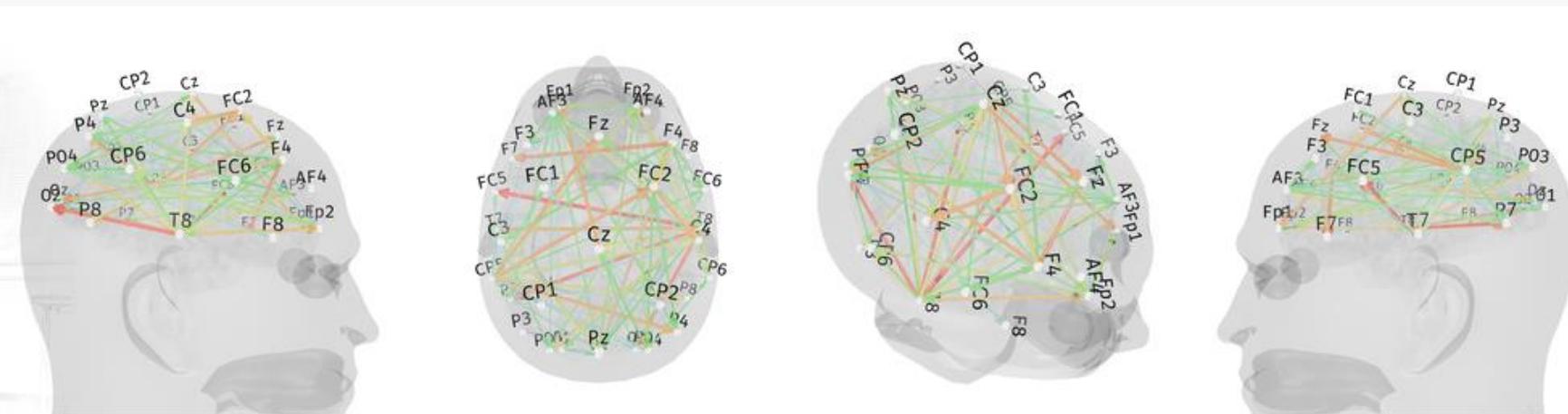
- **Elon Musk, Tesla CEO**- 20%
- **Sundar Pichai, Google CEO** – “the underlying risk is actually pretty high”
- **Dario Amodei, Anthropic CEO** – 10-25%
- **Lex Fridman, MIT Research Scientist**– 10%
- **Sam Altman, Open AI CEO** – “Whether you think it’s 2, or 10, or 90, it’s not zero”



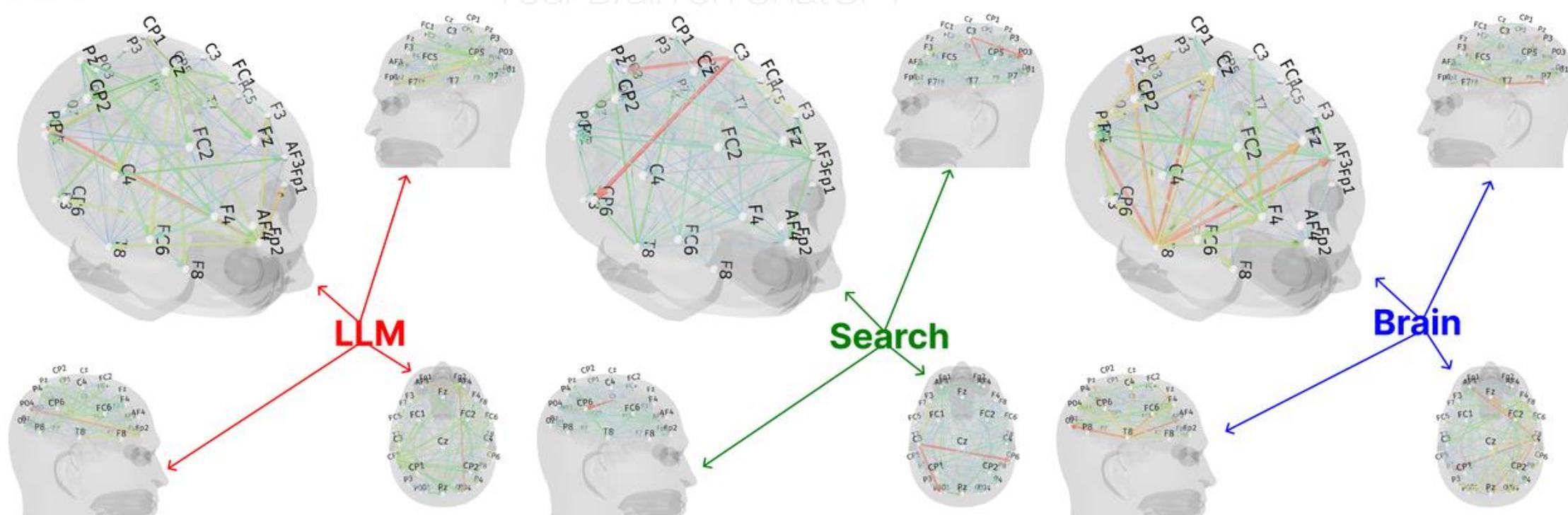
**MIT BRAIN SCAN STUDY
FINDS CHATGPT USE
MAY WEAKEN MEMORY
AND CREATIVITY**

Your Brain on ChatGPT: Accumulation of Cognitive Debt when Using an AI Assistant for Essay Writing Task

<https://www.brainonllm.com/>



Your Brain on ChatGPT



A man in a blue long-sleeved shirt is sitting at a black table outdoors. He is holding a black mug. On the table, there are some papers, a microphone, and another black mug. A sign is attached to the front of the table. The sign has the text "AI makes you dumber" and "AI will take your job" on the top two lines, and "CHANGE MY MIND" on the bottom line, separated by a horizontal line. The background shows a brick walkway, a grassy area, and some trees and buildings in the distance.

AI makes you dumber
AI will take your job

CHANGE MY MIND



<https://info.obsglobal.com/jeff-man-resources-page>

Question
everything

