

Privacy and Data Security

In the Machine Learning Age



[Richard Boyd](#)

Richard@Tanjo.ai

Twitter: @Metaversial

Perspective



Augmented Reality



Mobility



Digital Natives Rise

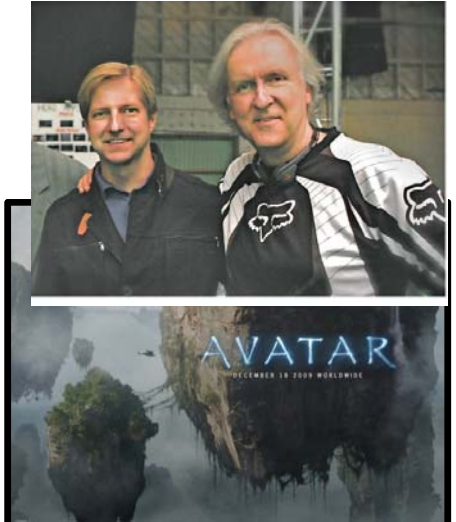


Simulation



New Interfaces

Stereoscopic 3D and VR



2014: Coup or Revolution?



By Mstyslav Chernov/Unframe/<http://www.unframe.com/> <https://commons.wikimedia.org/w/index.php?curid=31307276>



By Kremlin.ru, <https://commons.wikimedia.org/w/index.php?curid=7428086>
Viktor Yanukovich with Vladimir Putin



Narratives in Information Warfare

PREPARING TO FIGHT AGAINST, WITH, AND THROUGH NARRATIVES

WEDNESDAY, 29 NOVEMBER
1600 – 1730 • S320GH
SE10

Moderator

Shep Barge, Ph.D.
Director, Joint Assessment
Enabling Capability, Office
of the Deputy Assistant
Secretary of Defense for
Force Education and Training

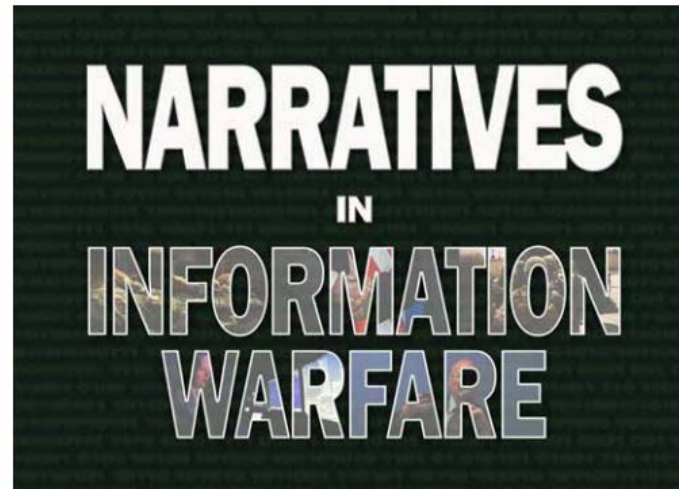
Panelists

Gregory C. Radabaugh, SES
Director, Joint Information
Operations Warfare Center,
Joint Staff

Richard Boyd
Founder and CEO, Tanjo, Inc.

Christopher Paul, Ph.D.
Senior Social Scientist,
RAND Corporation

Scott W. Ruston, Ph.D.
Research Scientist, Global
Security Initiative, Arizona
State University



With the advancements in technology today the speed of information flow has never been faster. The general public has become increasingly aware of the impact of how information is received and interpreted, through media and information campaigns. Recent world events have demonstrated how a narrative can be weaponized.

Understanding how narratives are created and how they influence behavior is just one discussion topic for this panel. We need to understand how best to train our warfighters to win in this new and complex battlefield: the information environment.

The Chairman of the Joint Chiefs of Staff has established Information as a new joint function in military doctrine (in addition to Command & Control, Intelligence, Fires, Movement & Maneuver, Protection, Sustainment), taking action to provide strategic guidance in the employment of Information.

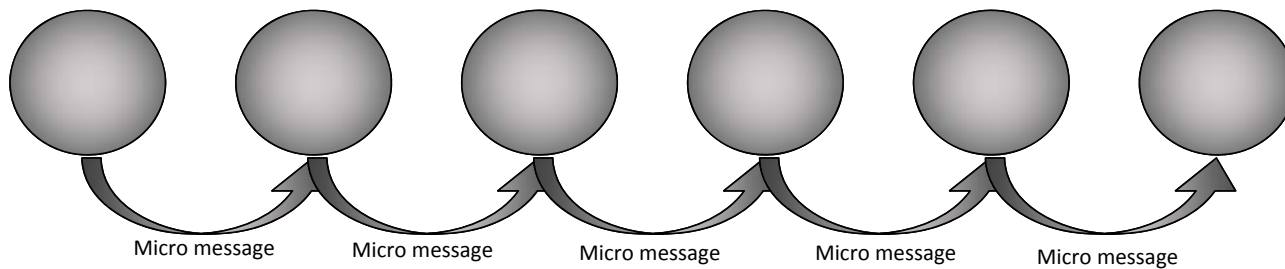
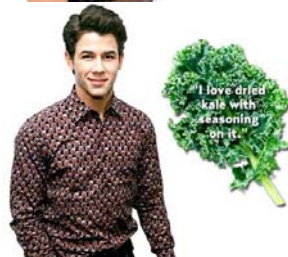
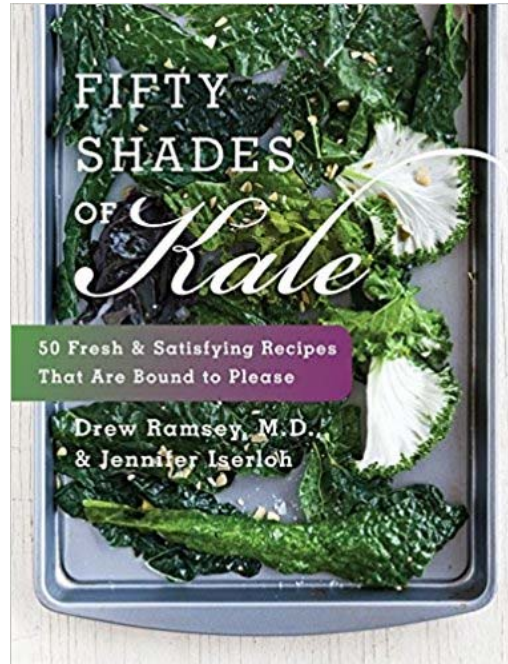
To explore how we can better provide our warfighters with the means to understand, train, and win in this new, complex battlefield, this panel seeks to bring together:

- The science of how our warfighters and adversaries create and respond to narratives,
- Current initiatives within the Department of Defense to conduct operations in the Information Environment, and
- Technology and Industry insight on understanding and employing narratives.

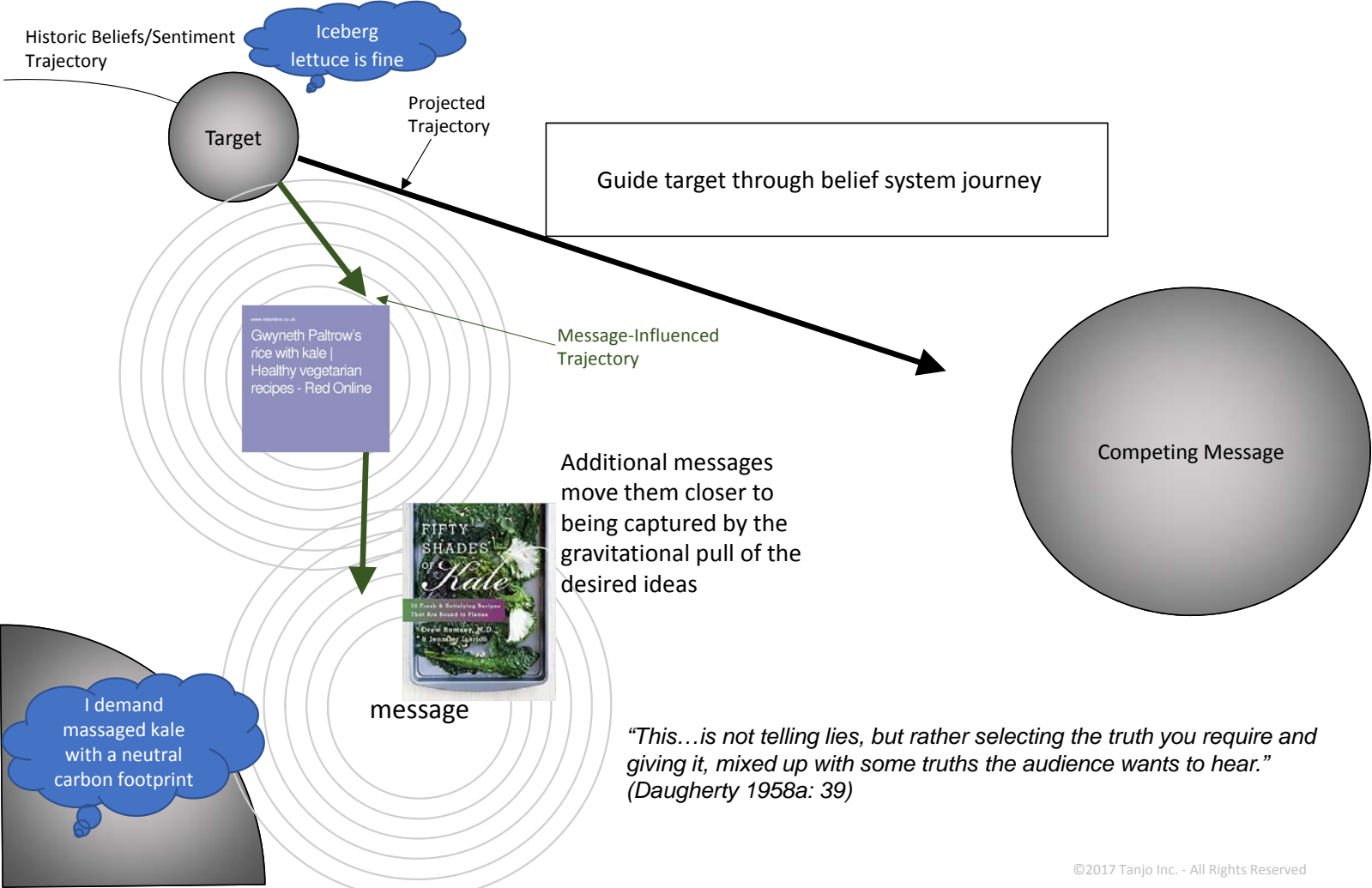
Got Kale?

TANJO.ai

“After weeks of investigation later, the mystery of the American Kale Association still plagued me.”



Winning Hearts and Minds with Machine Learning



TANJO.ai



Social Distancing Simulation

The simulation interface is divided into several sections:

- Control Panel (Top Left):** Five "Go Party" buttons (1-5) and five "Stay Home" buttons (1-5). Each button has a "Use Influencer" checkbox. "Go Party 3" and "Go Party 4" are checked. "Stay Home 1" through "Stay Home 5" are unchecked.
- Visual Environment (Center):** A 2D space with a house icon on the left and a party icon on the right. A vertical line of icons (green, yellow, red) represents the population's state. A large grid of small colored squares (green, yellow, red, grey) represents the simulation area.
- Line Graph (Top Right):** "Number of Cases" vs "Days". The y-axis ranges from 0 to 1000. The x-axis ranges from 0 to 300. The legend includes Capacity (grey), Unexposed (blue), Infected (red), Immune (green), and Dead (black). The blue line (Unexposed) starts at 1000 and drops to 0 by day 150. The red line (Infected) peaks at ~300 around day 150. The green line (Immune) rises to ~900 by day 300.
- Line Graph (Bottom Right):** "Number" vs "Activity Probability". The y-axis ranges from 60 to 110. The x-axis ranges from 0.0 to 1.0. The blue line shows a sharp peak at ~100 around activity probability 0.7.
- Buttons (Bottom Center):** "Reset", "Run Simulation" (highlighted in orange), and "Pause".

Recent IRS RFI

**PILOT IRS- Request for Information (RFI) 2032H5-20-N-00012
Internal Revenue Service (IRS), Enterprise Systems Testing (EST)
Synthetic Data Initiative**

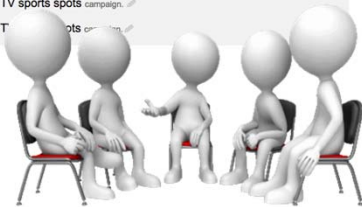
1.0 High-Level Summary

This RFI is part of the Pilot IRS Program. Internal Revenue Service (IRS), Office of the Procurement Executive is requesting information about innovative, enterprise-wide Artificial Intelligence (AI) or simulation engine systems that will allow developers and testers to generate, manage and control synthetic tax data. We are primary interested in: 1) an interactive prototype that simulates real-life events (similar to those that drive popular video games like 'The Sims') when its populated with statistical data about United States (US) household incomes and family sizes to create, track and generate output triggers for tax-related events; 2) a report/listing detailing the use of AI and/or non-AI Based data modeling and prototyping tools used in industry/government to simulate individual and household activities with tax impacts to drive an expanded synthetic data generation approach; and 3) a rough estimate of how much these tools would cost relative to their return on investment (ROI).

Submit ideas and have them react

The screenshot shows a web application interface for managing campaigns. It features a sidebar with navigation options: Campaigns, Facebook, Magazine print, Ads, and Personas. The main content area displays a list of campaigns with details such as ad matches, top topics, and overall scores. For example, 'GQ Mag Spring' has 48% ad matches and 75% top topics. Below the campaigns, there is a section for 'Personas' with a table of user profiles and their interests.

Persona	Overall	Top Topic
Doug - At Home Writer	42%	81% top topic Coffeehouse enlightenment
David - Marketing Celebrity	68%	72% top topic Buyer Personas
Ellen - Design Trendsetter	48%	90% top topic Art Exhibits
Steve - Gamer Tech Guy	35%	52% top topic Video Cards
Leslie - Grad at First Job	75%	85% top topic Small Apartment Living

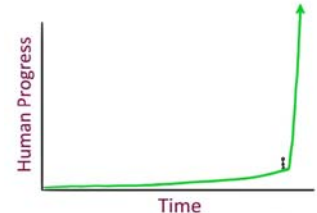


The screenshot shows a web application interface for managing campaigns. It features a sidebar with navigation options: Campaigns, PERSONAS, and ACCOUNT. The main content area displays a list of campaigns with details such as ad matches, top topics, and overall scores. For example, 'Television Daytime' has 15 ads. Below the campaigns, there is a section for 'Personas' with a table of user profiles and their interests.

Persona	Overall	Top Topic
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Natural Language Discussions





2017 Machines Learn to Lie?

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Obama, Merkel Urge Action on Atlantic Trade Pact

The Deadly State's

Computers That Crush Humans at Games Might Have Met Their Match: 'StarCraft'

Artificial intelligence has conquered complex games, but to win this one, machines need to figure out how to lie



In the popular real-time strategy game StarCraft, players use subterfuge and guile to defeat their enemies. Artificial intelligence experts think the game could be the next big target for a man-versus-machine contest. Photo: Korea e-Sports Association.

By JONATHAN CHENG
April 22, 2016 12:58 p.m. ET 24 COMMENTS

SEOUL—Humanity has fallen to artificial intelligence in checkers, chess, and, last month, Go, the complex ancient Chinese board game.

But some of the world's biggest nerds are confident that machines will meet their Waterloo on the pixelated battlefields of the computer strategy game StarCraft.

A key reason: Unlike machines, humans are good at lying.

StarCraft, created in 1998, is one of the world's most popular computer game franchises. It

Microsoft Cloud

lower the cost of borrow by 90%.

See the story

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start here if hole cards are Offsuit

Rank	A	K	Q	J	T	9	8	7	6	5	4	3	2
A	1	2	2	3	5	5	5	5	5	5	5	5	5
K	2	1	2	3	4	6	7	7	7	7	7	7	7
Q	3	4	1	3	4	5	7						
J	4	5	5	1	3	4	6	8					
T	6	6	6	5	2	4	5	7					
9	8	8	8	7	7	3	4	5	8				
8				8	8	7	4	5	6	8			
7						8	5	5	6	8			
6							8	6	7	7			
5								8	6	6			
4									8	7			
3										8			
2											8		

start here if hole cards are Same Suited

Rank	Hole Cards	Playable Positions
1	AA, KK, QQ, JJ; AKs	Early, Middle, Late
2	TT; AQs, AJs, KQs; AKo	Early, Middle, Late
3	99; ATs, KJs, QJs, JTs; AQo	Early, Middle, Late
		Early*, Middle, Late
		Middle**, Late
		Late***



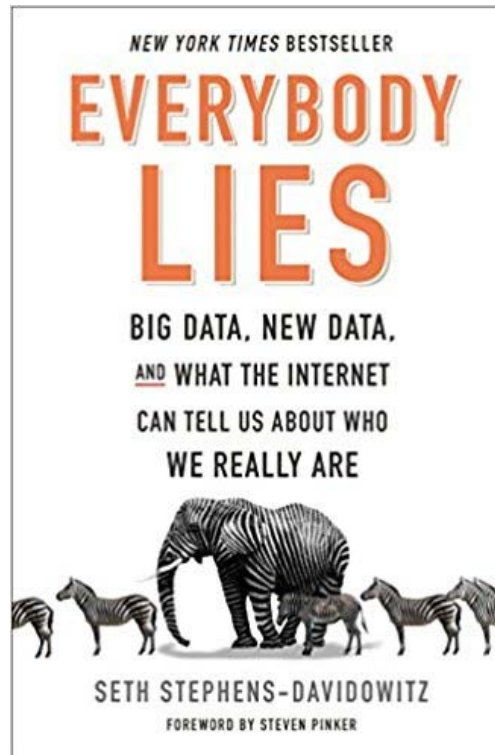
Why Poker Is a Big Deal for Artificial Intelligence

Playing poker involves dealing with imperfect information, which makes the game very complex, and more like many real-world situations.

by WB Knight January 23, 2017

/passive.
e/passive.
rst to bet.

The problem with surveys and focus groups





Digital Transformation Contract

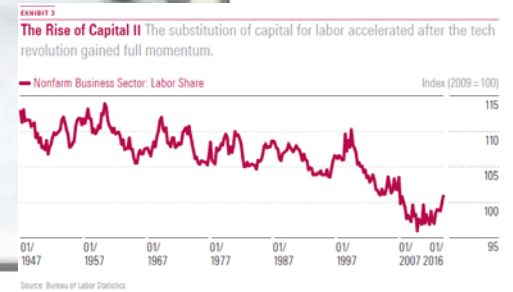
\$807 Million

Period of Performance 2020-2030



The Factory of the Future

Capital Triumphs over Labor





Project: Wise

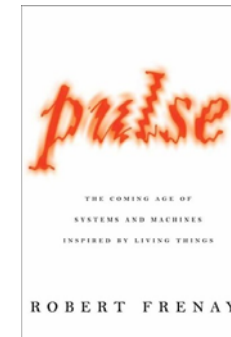
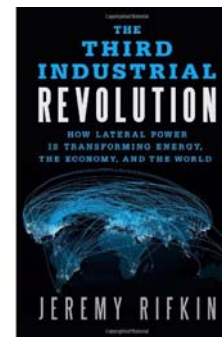
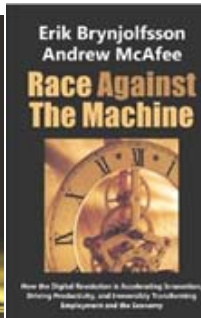
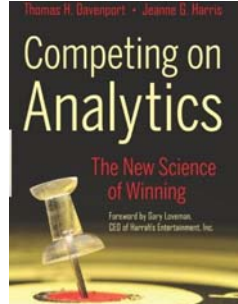
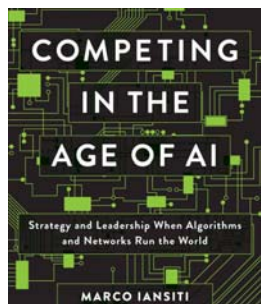
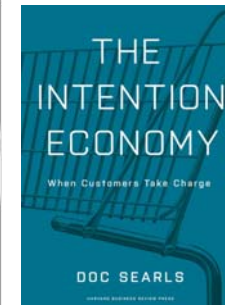
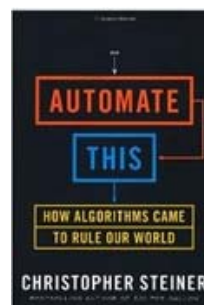
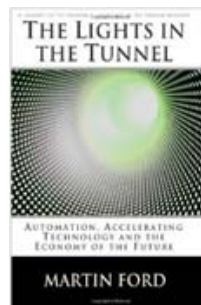
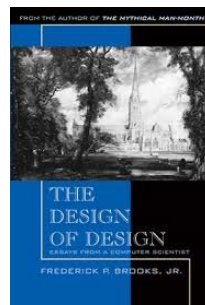
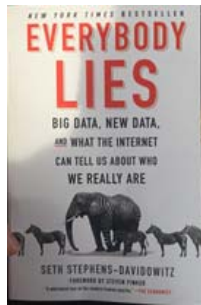
\$20 Million

Period of Performance 2020-2025



Suggested Reading

Before it's too late



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