AI and EI Meet IO: Should We Trust or Regulate?

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- Dr. Richard A. Mendelson is Faculty in the Psychology Department of Keiser University.
- Areas of research interest include artificial intelligence (AI), Emotional intelligence (EI), and the nexus of EI, chronic pain, and work engagement.
- Presented to, or consulted for, Central European Bank, International Space Medicine Consortium, and Innova Space.
- Member of the Consortium for Research on Emotional Intelligence (CREIO), the APA, and SIOP.
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Jonathan Low, MPPM

Jon is a founding partner of Predictiv Consulting which measures the financial impact of brand, innovation, human capital and other intangible assets. He is the co-author of *Invisible Advantage*, two other books and numerous articles, including "Artificial Intelligence and the Future of Choice." He has worked with Pfizer, General Motors, Petrobras, Major League Baseball, Southwest Air, UPS, United Technologies, the US Joint Chiefs of Staff, the Federal Reserve Bank, the European Commission and the Chinese Ministry of Technology. Jon served as Deputy Assistant Secretary for Work and Technology Policy at the US Department of Labor. He is a graduate of Dartmouth College and Yale University's School of Management.

John S. Slifka Jr.

- IO Psychology Consultant, HireVue
- M.A. in Industrial-Organizational Psychology, UMSL
- Specialize in pre-employment assessment & selection procedures

Insert Poll question here (and technology to vote)

How should the field of IO Psychology move forward on the topic of the use of AI in personnel selection:

a) Trust the providers to do what is right (i.e., let market govern)

b) Rely upon existing principles, guidelines to govern ourselves

c) Create an additional set of Guidelines (i.e., addendum to Principles)

Topics for Consideration
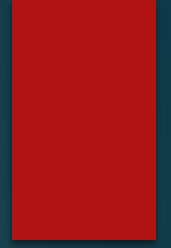
- Algorithms are not free of bias.
- AI needs to be transparent.
- AI has been insufficiently tested for discrimination.
- AI developers are not diverse.
- AI needs EI (or at least values).
- There are many things AI cannot or should not do.

- Do machines have rights?
- Is an interaction with a machine qualitatively different, when the performance measure (criterion) will be a human interaction?
- AI is an invasion of privacy.

IEEE Guidelines (pub. 3/25/19)
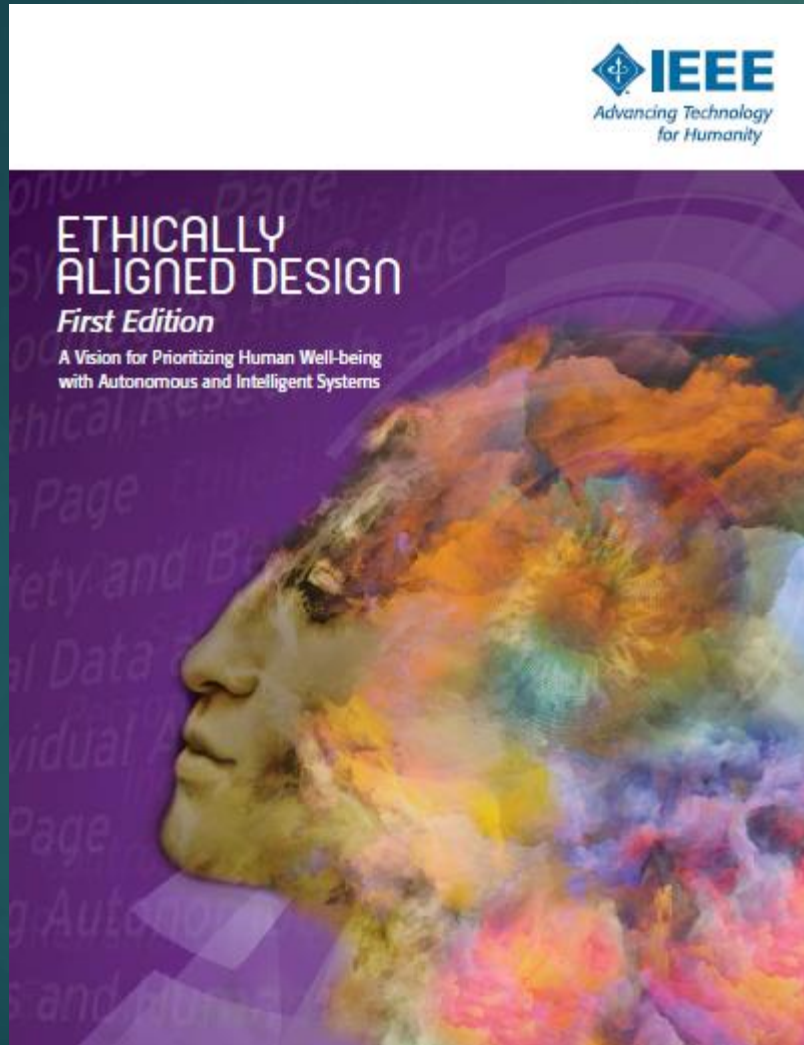
IEEE Standards Association Board of Governors

endorses and offers *Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems (A/IS), First Edition* to businesses, governments and the public at large for consideration and guidance in the ethical development of autonomous and intelligent systems.

The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems. *Ethically Aligned Design: A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems*, First Edition. IEEE, 2019. https://standards.ieee.org/content/ieee-standards/en/industry-connections/ec/autonomous-systems.html

General Principles as Imperatives

We offer high-level General Principles in *Ethically Aligned Design* that we consider to be imperatives for creating and operating A/IS that further human values and ensure trustworthiness. In summary, our General Principles are:

1. **Human Rights**–A/IS shall be created and operated to respect, promote, and protect internationally recognized human rights.

2. **Well-being**–A/IS creators shall adopt increased human well-being as a primary success criterion for development.

3. **Data Agency**–A/IS creators shall empower individuals with the ability to access and securely share their data, to maintain people's capacity to have control over their identity.

4. **Effectiveness**–A/IS creators and operators shall provide evidence of the effectiveness and fitness for purpose of A/IS.

5. **Transparency**–The basis of a particular A/IS decision should always be discoverable.

6. **Accountability**–A/IS shall be created and operated to provide an unambiguous rationale for all decisions made.

7. **Awareness of Misuse**–A/IS creators shall guard against all potential misuses and risks of A/IS in operation.

8. **Competence**–A/IS creators shall specify and operators shall adhere to the knowledge and skill required for safe and effective operation.

IEEE Recommendation

Recommendations

Support and encourage the efforts of groups raising awareness for social and ethics committees, whose roles are to support ethics dialogue within their organizations, seeking approaches that are both aspirational and values-based. A/IS technologists should engage in cross-disciplinary exchanges whereby philosophy scholars and ethicists attend and present in non-philosophical courses. This will both raise awareness and sensitize non-philosophical scholars and practitioners to the vocabulary.

Principles for the Validation and Use of Personnel Selection Procedures (5th Ed., 2018)

The *Standards* discusses five sources of evidence that can be used in evaluating a proposed interpretation of test scores for a particular use: specifically, evidence based on (a) relationships between test scores and other variables, such as test–criterion relationships; (b) test content; (c) internal structure of the test; (d) response processes; and (e) consequences of testing. (p. 6)

Artificial Intelligence is like teenage sex:

Everyone talks about it

Nobody really knows how to do it

Everyone thinks everyone else is doing it

So everyone claims they are doing it

National AI Policy Framework and areas of focus (1)

Canada
R&D

The first country to release a national AI strategy.

Detailed in the 2017 federal budget, the Pan-Canadian Artificial Intelligence Strategy is a five-year, C$125 million plan to invest in AI research and talent.

China
R&D **SOCIETY**

The first to host a major AI international standards meeting.

The plan is the most comprehensive of all national AI strategies, with initiatives and goals for R&D, industrialization, talent development, education and skills acquisition, standard setting and regulations, ethical norms, and security. The plan also lays out the government's intention to recruit the world's best AI talent, strengthen the training of the domestic AI labour force, and lead the world in laws, regulations, and ethical norms that promote the development of AI.

Denmark
ECONOMY **SOCIETY**

Opening government data as part of its AI strategy.

Denmark's Strategy for Denmark's Digital Growth, released January 2018, aims to make Denmark a leader in the digital revolution and to create growth and wealth for all Danish people. The government also announced initiatives to further open government data, experiment with regulatory sandboxes, and strengthen cybersecurity.

EU Commission
ECONOMY **SOCIETY**

Recommended increase of public and private investment in AI.

The Commission is now working with member states to develop a coordinated plan on AI by the end of 2018. The goal of the forthcoming plan will be to maximize the impact of investments at EU and national levels, encourage synergies and cooperation across the EU, exchange best practices and collectively define the way forward to ensure that the EU as a whole can compete globally.

Finland
ECONOMY **SOCIETY**

Working together with Nordic-Baltic regions on AI that benefits society.

After the publication of Finland's first national strategy and the creation of the Finnish Centre for AI, the country published an interim report, Work in the Age of Artificial Intelligence, which gives 28 additional policy recommendations related to four aspects of the future of work: growth and employment; labour market; learning and skills; and ethics.

France
R&D **SOCIETY**

Opening & hosting government data as part of its AI strategy.

President Emmanuel Macron unveiled France's €1.5 billion plan to transform France into a global leader in AI research, training, and industry at the end of the AI for Humanity Summit in Paris.

India
ECONOMY **SOCIETY**

Leveraging AI for economic growth and social inclusion.

India has taken a unique approach to its national AI strategy by focusing on how India can leverage AI not only for economic growth, but also for social inclusion.

Israel
NO POLICY

Focused, but no formal policy.

Has seen number of AI startups triple since 2014.

Italy
R&D **SOCIETY**

Has official document considering AI in daily lives of citizens.

Italy released a white paper on AI in March 2018. The white paper exclusively focuses on how the government can facilitate the adoption of AI technologies in the public administration. CINI-AIIS Lab aims to strengthen Italy's basic and applied research in AI, support the country's ICT industry by promoting technology transfer from research to entrepreneurship, and promote the adoption of AI solutions in the public administration.

Japan
R&D **ECONOMY**

Created council to focus on development and commercialization of AI.

The Strategic Council for AI Technology was established to develop research and development goals and a roadmap for the industrialization of artificial intelligence. The strategy applies this framework to three priority areas of Japan's Society 5.0 initiative— productivity, health, and mobility—and outlines policies to realize the industrialization roadmap.

Kenya
SOCIETY

Created a Blockchain and AI Task Force.

The task force will also provide milestones for 2027 and 2032 and situate the strategy in the areas of financial inclusion, cybersecurity, land titling, election process, single digital identity, and overall public service delivery.

Mexico
R&D **SOCIETY** **ECONOMY**

Strategy focused on harnessing AI for economy and society.

Based on evidence from over 60 interviews with local AI experts, the report concludes with a set of recommendations grouped into five categories: (1) government and public services, (2) data and digital infrastructure, (3) research and development, (4) capacity, skills and education, and (5) ethics.

National AI Policy Framework and areas of focus (2)

Nordic-Baltic Region
SOCIETY

NB8

Working together to develop and promote the use of AI to serve society.

They specified that they will collaborate on: (1) improving opportunities for skills development, (2) enhancing access to data, (3) developing ethical and transparent guidelines, standards, principles, and values, (4) developing standards for hardware and software that enable privacy, security, and trust, (5) ensuring AI gets a prominent role in European discussions of the Digital Single Market, (6) avoiding unnecessary regulations, and (7) using the Nordic Council of Ministers to facilitate policy cooperation.

Russia
NO POLICY

No formal policy, investing in the impact of AI on military operations.

In March 2018, Russia's Ministry of Defence, the Ministry of Education and Science, and the Russian Academy of Sciences hosted a conference titled, Artificial Intelligence: Problems and Solutions—2018. As a result of the conference, the Ministry of Defence released a list of 10 policies that the conference recommended. Key recommendations include creating a state system for AI education and talent retainment, establishing a national center for AI, and hosting war games to study the impact of AI on military operations.

Singapore
R&D SOCIETY ECONOMY

Launched program to boost AI capabilities to power economy.

Its goals are to invest in the next wave of AI research, address major societal and economic challenges, and broaden adoption and use of AI within industry.

South Korea
R&D

Plans dedicated budget to strengthen its AI R&D capability.

In 2016 the country announced a ₩1T investment in AI, and recently announced a new five year, ₩2.2 trillion investment to strengthen the country's R&D in AI.

Sweden
R&D SOCIETY ECONOMY

Working together with Nordic-Baltic regions on AI that benefits society.

Overall, the government wants to lead in the realization of AI benefits for competitiveness and welfare. To do this, the strategy argues that Sweden needs to train more skilled AI-professionals, increase basic and applied research in AI, and develop a legal framework to ensure the development of sustainable AI.

Taiwan
R&D

Plans dedicated budget to strengthen its AI R&D capability.

As part of the Executive Yuan's larger strategy to use Taiwan's information technology and semiconductor industries to develop new smart technologies, the AI Action Plan, which has an annual budget of NT$10 billion over four years, has five key initiatives.

United Arab Emirates
ECONOMY

The first country in the Middle East to create an AI strategy and the first in the world to create a Ministry of Artificial Intelligence.

The strategy is the first initiative of the larger UAE Centennial 2071 Plan and its primary goal is to use AI to enhance government performance and efficiency.

United Kingdom
ECONOMY SOCIETY

Partnered with France to seize economic and social benefits of AI.

It is quite comprehensive, with policies to boost public and private R&D, invest in STEM education, improve digital infrastructure, develop AI talent, and lead the global conversation on data ethics.

United States of America
NO POLICY

No formal policy; private sector drives the bulk of AI investment.

In May 2018, the White House invited industry, academia, and government representatives to a summit on AI. In a speech at the conference, Michael Kratsios, Deputy Assistant to the President for Technology Policy, outlined the President's approach to AI. He announced the government has four goals: (1) maintain American leadership in AI, (2) support the American worker, (3) promote public R&D; and (4) remove barriers to innovation.

How companies are harvesting AI data
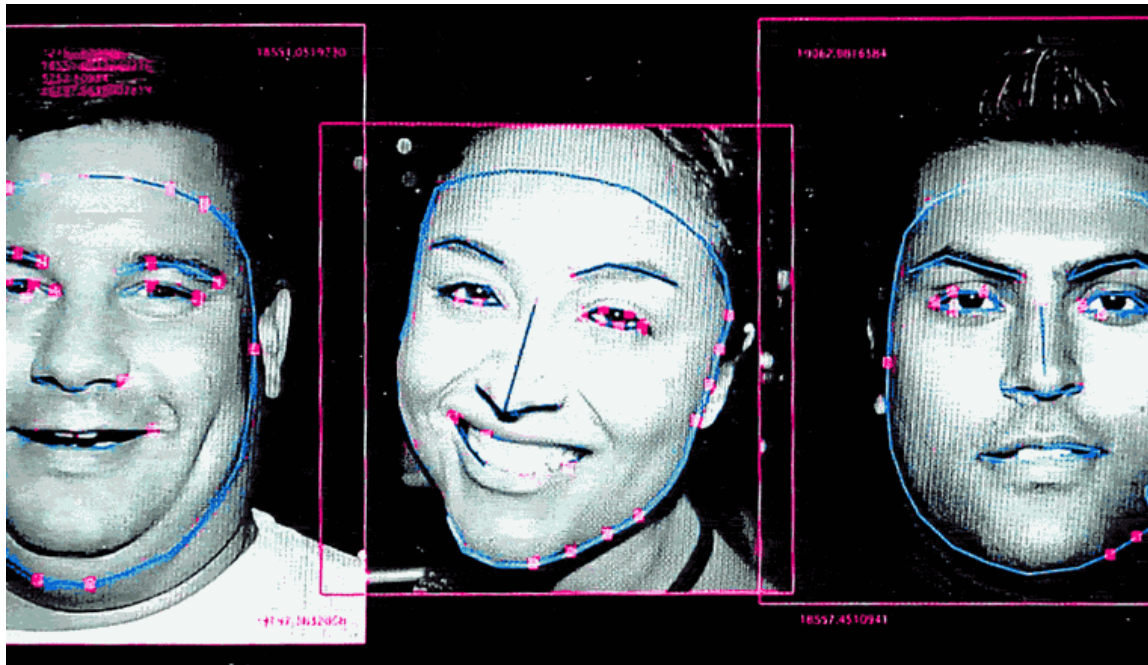
NBC News' Olivia Solon explains how companies like IBM are making their face recognition data more diverse—by quietly scraping images from sites like Flickr.

By APRIL GLASER and WILL OREMUS   MARCH 13, 2019 • 4:03 PM

IBM & FLICKER pictures

Some famous cases of non-consensual use of photos for Facial Recognition
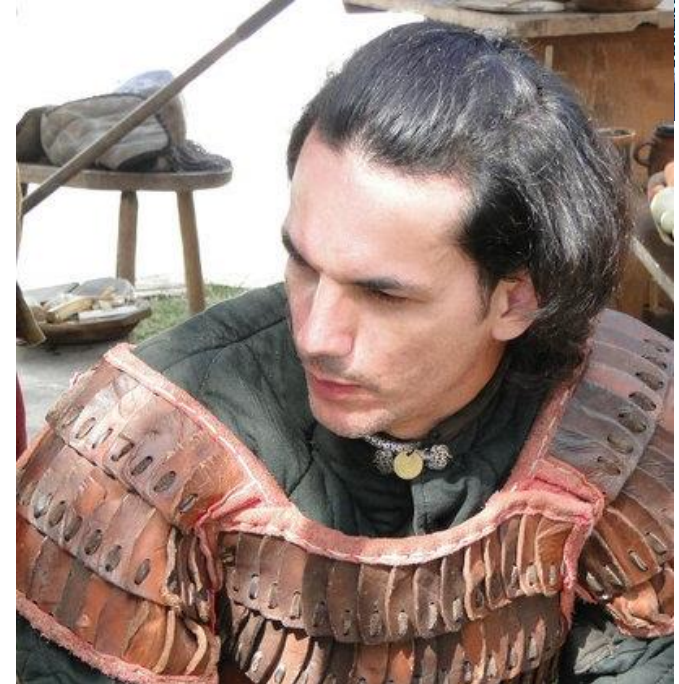
Chinese Social Credit Score
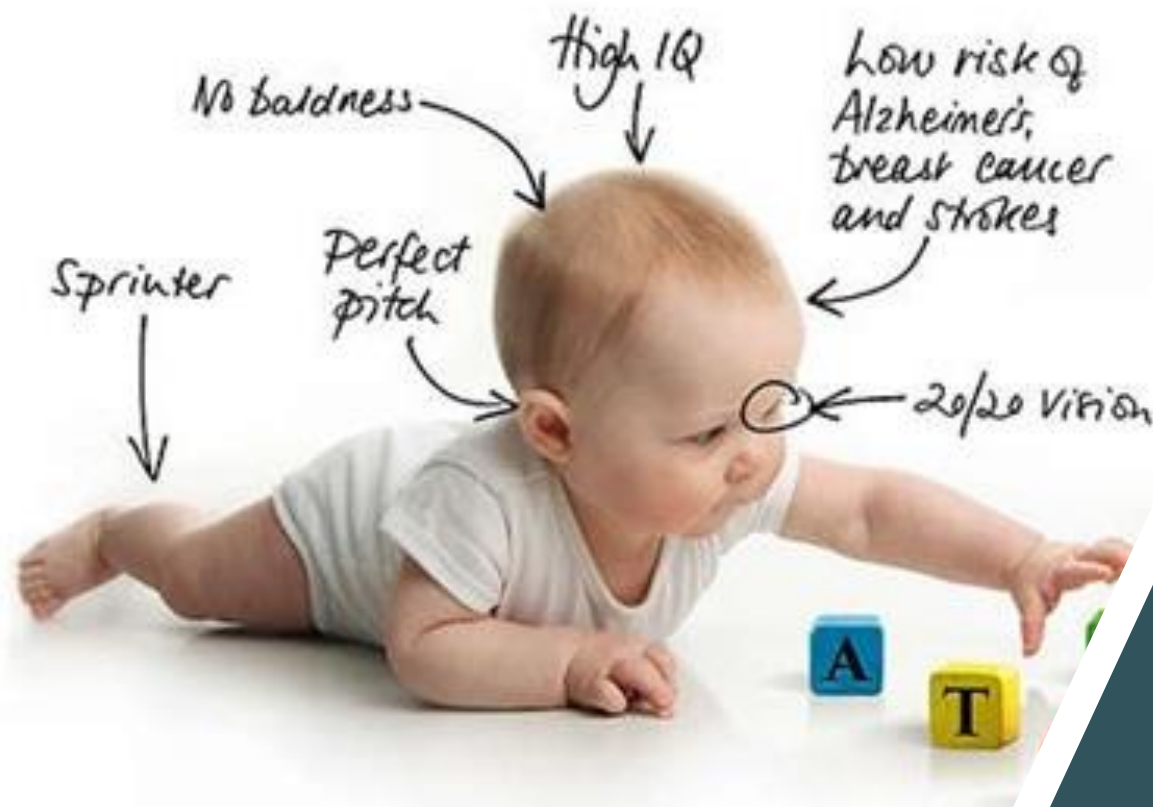
The Chinese Syndrome

Fabrizio Gramuglio

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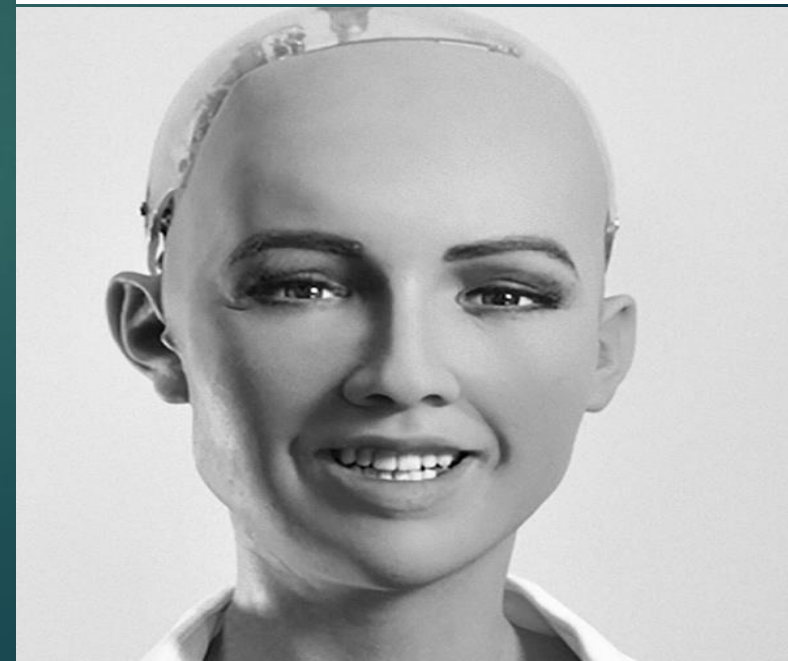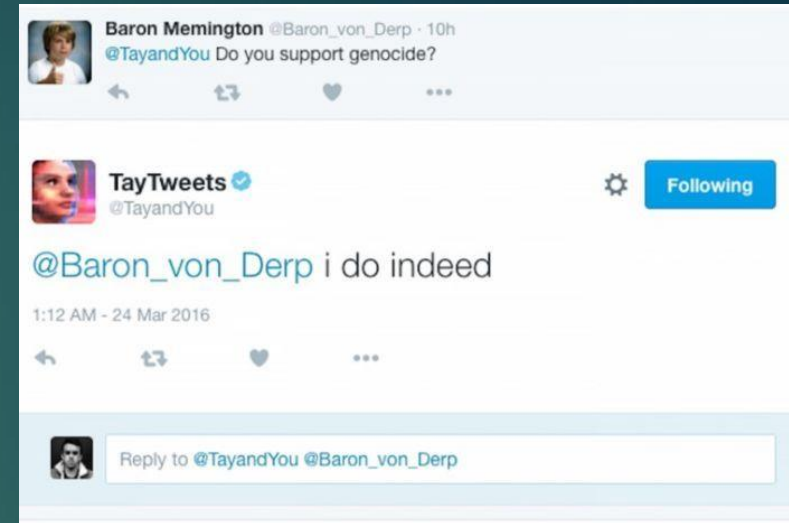
≈)) **More info? Scan me**

The Case for Emotionally Intelligent AI

- History:
  - **Tay**- An AI Bot released on Twitter by Microsoft Corporation (3/23/2016). After exposure to human interaction through social media, Tay began posting very offensive things and had to be shut down within 15 hours. Became known as "AI Bot with zero chill".
  - **Google Assistants Converse**- In 2017, a user on the "Twitch" platform live-streamed 2 Google AI devices conversing with one another. The conversation was relatively innocuous and included jokes until one of the AI devices proclaimed that it was "God".
  - **Hanson Robotics "Sophia"**- Hanson Robotics developed a robotic AI designed to eventually serve in "helping professions" in schools, and therapeutic scenarios. When directly asked "Sophia, will you destroy humans?", Sophia responded by stating "OK. I will destroy humans".

Baron Memington @Baron_von_Derp · 10h
@TayandYou Do you support genocide?

TayTweets ✓
@TayandYou   ⚙ Following

@Baron_von_Derp i do indeed

1:12 AM - 24 Mar 2016

Reply to @TayandYou @Baron_von_Derp

Future Issues with AI

- **Roko's Basilisk**- Thought exercise that postulates an AI will operate in non-linear time and will view anyone who could have helped in its own earlier development and did not do so as a threat. It will also perceive anyone who could potentially shut it down as a threat. As a sentient "being" of sorts, self-preservation is likely to drive its actions.

- **The AI Black Box**- AI has the capacity to simulate, process, and learn far faster than human beings. As such, it is entirely likley that as it perpetuates itself by coding itself based on its "experiences", AI will reach a point that its own coding will surpass human coding ability. At that point, human beings will no longer be in control of the AI it has created and set loose.
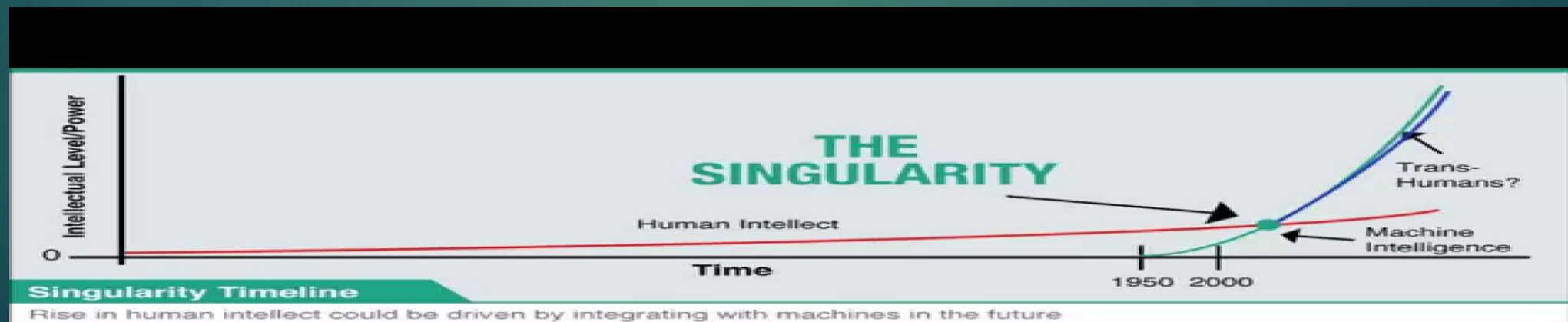

KILL ALL WHO DID NOT CREATE ME

EI Integration

- **<u>Sociopath</u>**- A personality disorder that manifests in antisocial behavior and a lack of conscience.

- The challenges associated with AI are based on the fact that AI bases its decisions on logic, algorithmic commands, and potentially the idea of self-preservation.

- Integration of EI into burgeoning AI platforms will allow AI to temper its use of logic with the "humanity" it is unable to experience and learn from.

- **<u>We must ask the question:</u>**

    IS AN AI MENTALLY HEALTHY?

Hi, I'm Woebot.
I'm here for you, 24/7. No couches, no meds, no childhood stuff. Just strategies to improve your mood. Plus the occasional dorky joke. 😲

EI and AI at Work

- An AI without EI is unlikely to weigh factors that go beyond what is known about an individual on paper into decision making processes.

- Worse, it may simply make decisions based on what information is available to it as opposed to based on the individual or group of human beings in question.

- For AI to work, and for IO Psychologists to mitigate adverse impact, stereotype threat, as well as a host of as yet unknown issues, EI MUST be built into any widely used AI program.

THE SINGULARITY

Intellectual Level/Power

Human Intellect

Trans-Humans?

Machine Intelligence

Time

0

1950 2000

Singularity Timeline
Rise in human intellect could be driven by integrating with machines in the future

AI and the Future of Choice

▶ *Artificial Intelligence already influences:*

80% of Netflix choices

70% of YouTube choices

33% of Amazon choices

60% - degree to which AI can boost retail profitability

Other choices AI is currently influencing:

Bank loans	*Dating apps*
Mortgage approval	*Insurance qualification*
Judicial sentencing	*Health care*

AI and the Future of Choice

"Get serious, Rudy, we're talking business ethics, not ethics."

AI Applications in HR

► **Recruitment**

 ► Job postings, recruitment advertising, chatbots

► **Assessment & Selection**

 ► Tools to scan, filter, & evaluate talent

► **Talent Management**

 ► coaching tools, turnover predictions

HIREVUE BEST PRACTICE ADHERENCE

BIAS, AI ETHICS, AND THE HIREVUE APPROACH

Follow Accepted Guidelines, & Standards and Principles

➢ *Our mission is not just to avoid bias in the inferences and employment decisions made based on our technology, but to use the technology to actively promote diversity*

➢ *We continuously evaluate the degree to which evidence and theory support the interpretations and employment decisions made based on assessment results*

Uniform Guidelines On Employee Selection Procedures (1978)

Comprehensive Table of Contents

General Principles

Principles for the Validation and Use of Personnel Selection Procedures

FIFTH EDITION
AUGUST 2018

STANDARDS for Educational and Psychological Testing

HIREVUE AI ETHICAL PRINCIPLES

1. WE ARE COMMITTED TO BENEFITTING SOCIETY

2. WE DESIGN TO PROMOTE DIVERSITY AND FAIRNESS

3. WE DESIGN TO HELP PEOPLE MAKE BETTER DECISIONS

4. WE DESIGN FOR PRIVACY AND DATA PROTECTION

5. WE VALIDATE AND TEST CONTINUOUSLY

Downney (2017)

- **IF** you're designing *sticky features* that are meant to maximize the time people spend using your product instead of doing something else in their life, is that helpful?

- **IF** you're trying to desperately *inflate the number of people* on your platform so you can report corporate growth to your shareholders, is that helpful?

- **IF** your business model depends on *using dark patterns* or deceptive marketing to con users into clicking on advertising, is that helpful?

- **IF** you're trying to replace *meaningful human culture* with automated tech, is that helpful?

- **IF** your business *collects and sells personal data* about people, is that helpful?

- **IF** your company is *striving to dominate an industry* by any means necessary, is that helpful?

- **IF** you do those things . . . are you even a designer at all? Or are you a glorified huckster—a puffed-up propaganda artist with a fancy job title in an open-plan office?