



Swiss Re  
Corporate Solutions

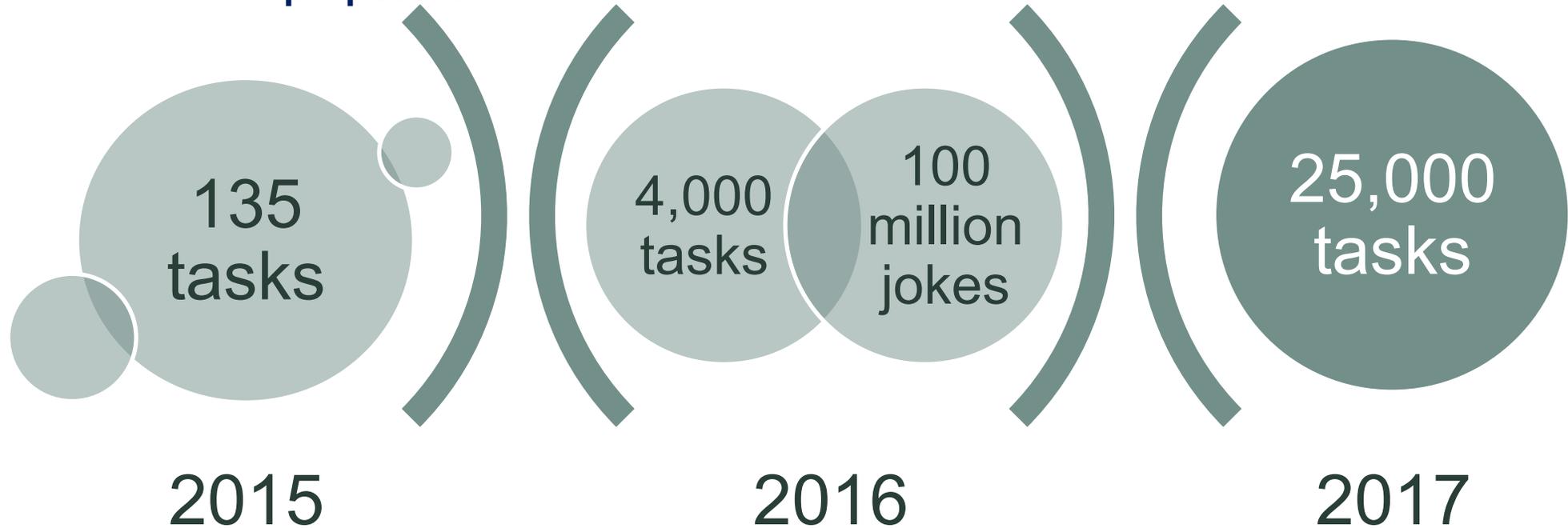
# When AI goes awry

KaK

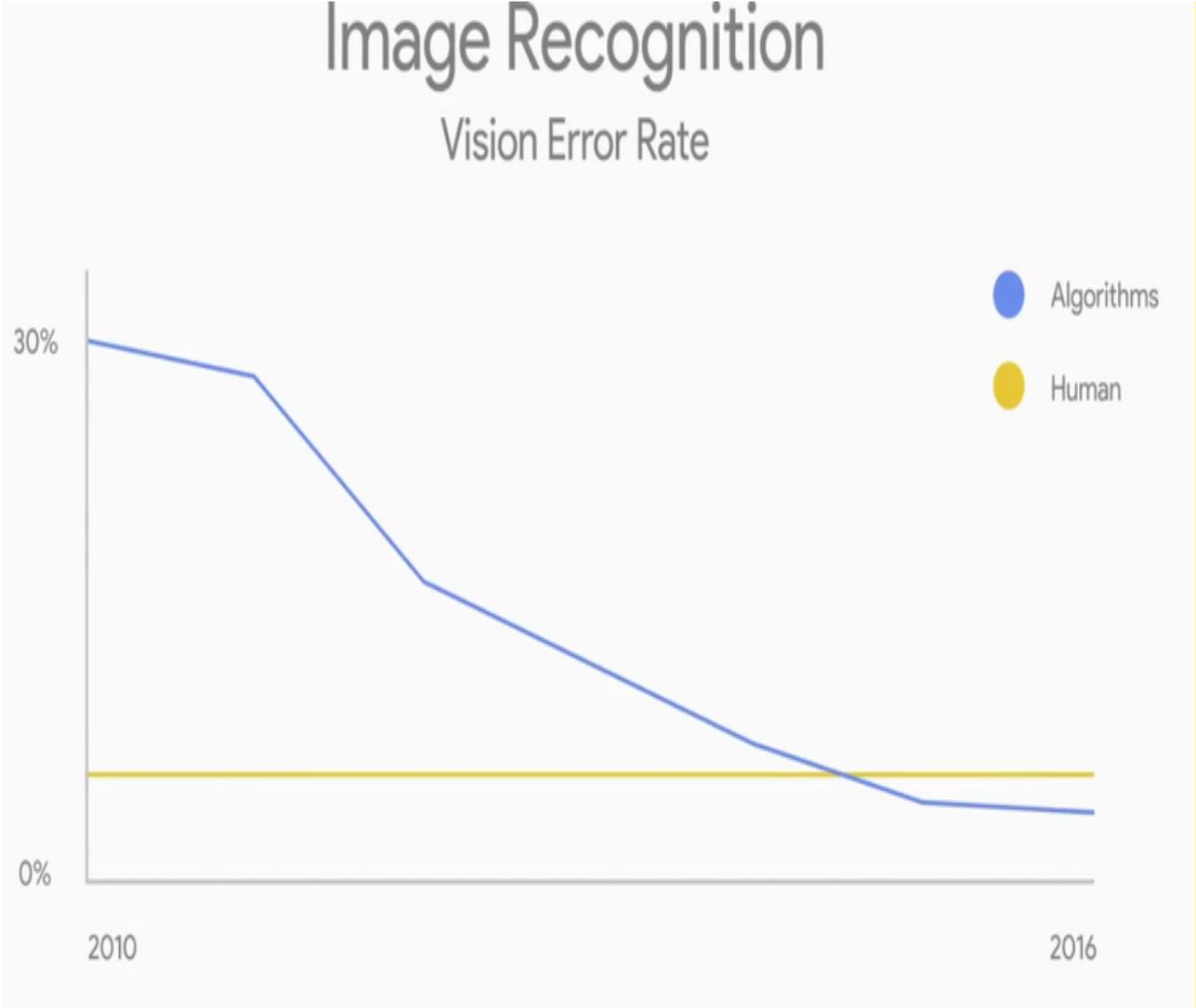
Kate Browne

# Why Alexa is my favorite child

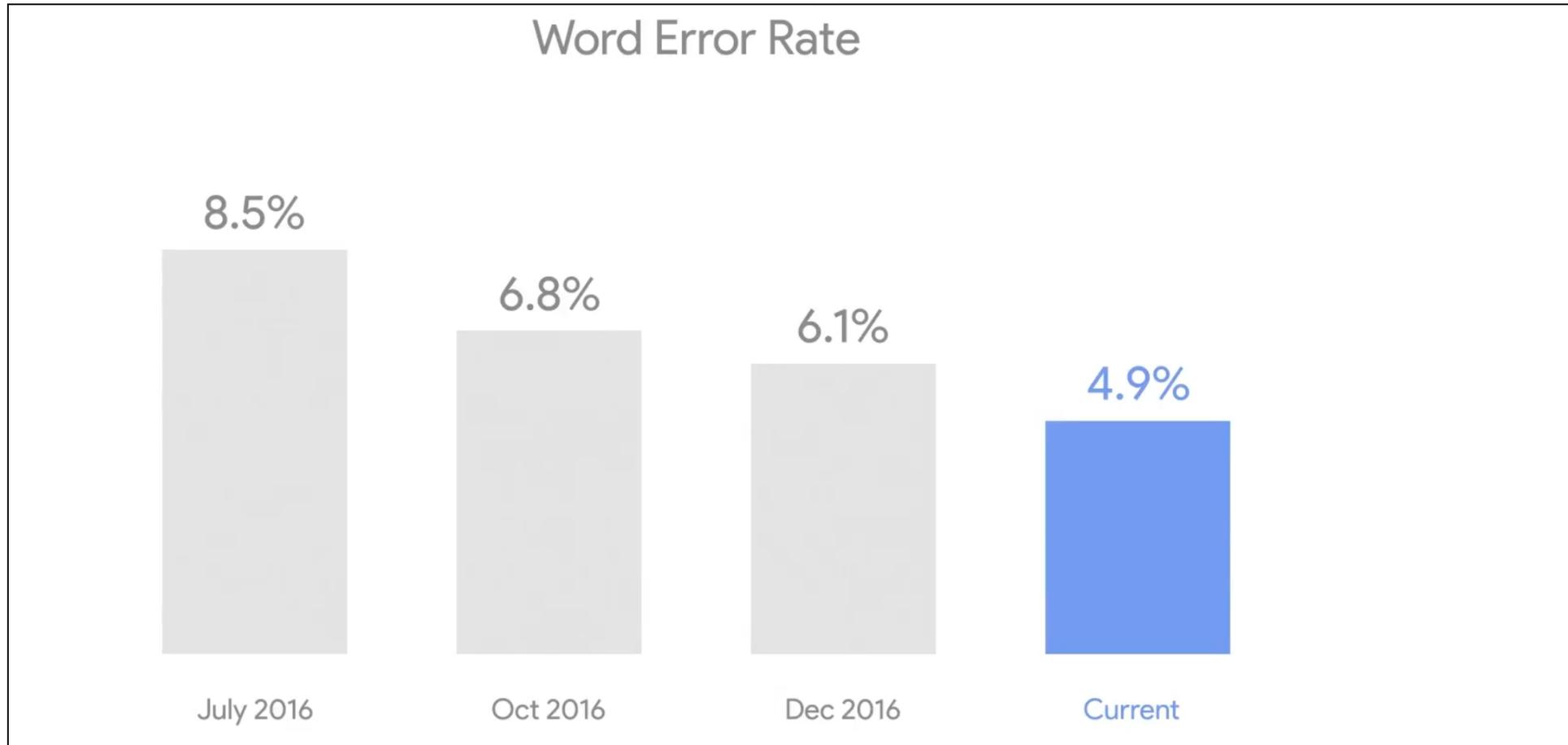
**Most common reminder—take medicine**  
**Most common request on the new voice calling feature?:**  
**Who gets up earlier? How many marriage proposals?**



# The Machines See Better Than We Do



# The Hear Better To--Google Home Speech Recognition



# They Draw Better Too



2014



2015



2016



2017

15 / 101

Navigation icons: save, print, share, download, zoom in, zoom out, refresh.



## AI that can See



## AI that can Speak



## AI that can Hear



## AI that can Feel



## AI that can Smell



## AI that can Move

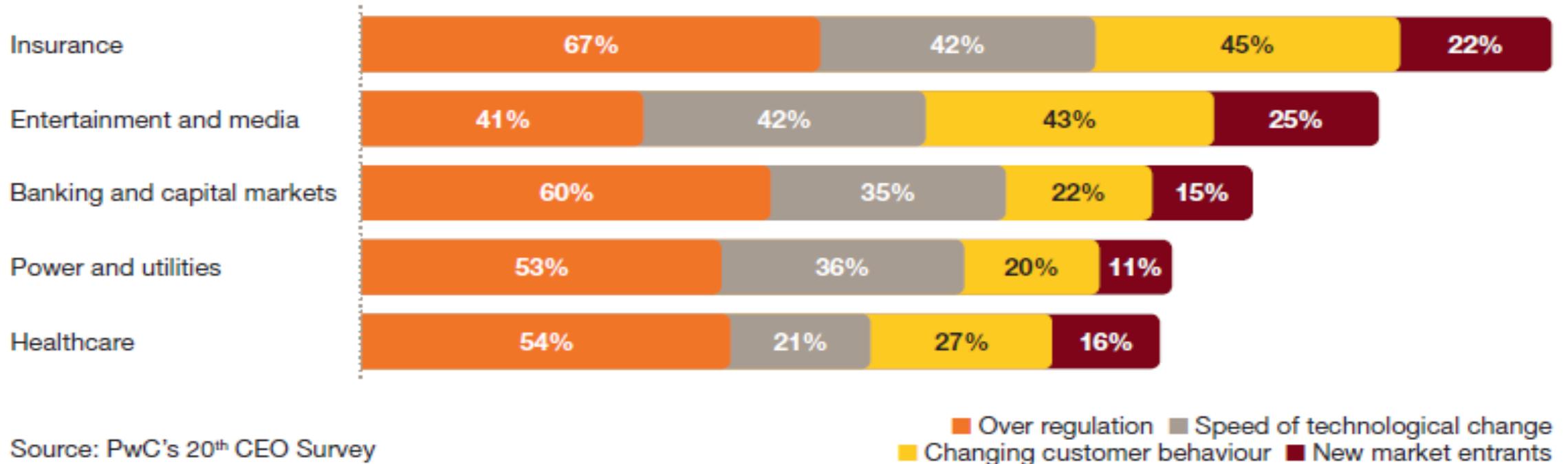


# Insurance has moved up to the top of the list of 'most disrupted sectors'

**Figure 2: Five most disrupted sectors**

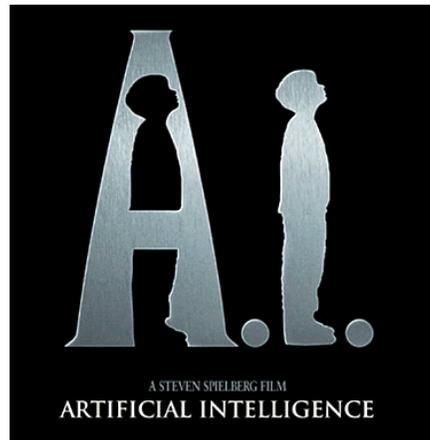
Q: How concerned are you about the potential threat to your growth prospects from the following?

CEOs stating 'extremely concerned' (only includes commercial sectors with more than 50 respondents)



# What Is AI?

- Artificial Intelligence is a complex algorithm that mimics how the human brain learns
- **Rule Based AI** using millions of “If-Then” statements
- **Data Driven AI- aka machine learning is part of deep learning.** Applies a algorithm to large amounts of data, eventually the software has been exposed to enough data that it “learns” to recognize patterns
- A “device that perceives its environment and takes actions that maximize its chance of success at some goal.”
- Mimics cognitive functions, such as learning and problem solving.
- ... also a really long movie



# The last 10 years have been about building a world that is mobile-first. In the next ten years we will shift to a world that is AI first.

Sundar Pichai, CEO of Google, October 2016



## Less fluff, please

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### Elon Musk v. the Flufferbot



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“We tried to automate the placement and bonding of fluff to the top of the battery pack. We had this weird flufferbot. Machines are not good at picking up pieces of fluff. Human hands are way better at doing that. So we had a super-complicated machine. The line kept breaking down because Flufferbot would frequently just fail to pick up the fluff. Or put it in a random location,” Elon Musk on the delay of Tesla’s Model 3.

# Is this really a good idea???

- AI system, **Deception Analysis and Reasoning Engine (DARE)**, - trained the system using videos of actors **to identify five micro-expressions linked to lying - frowning, raising eyebrows, turning up /protruding lips and turning the head sideways**. After watching 15 videos from courtrooms, DARE –**detected deception 92% of the time v 58% for humans**
- MIT- [Predictive Vision](#) system on videos-from “The Office” and “Desperate Housewives” to predict whether people will hug, kiss, shake hands or slap a five– claims they can find potentially “bad actors”
- **Intraspexion is the “Minority Report” of litigation** patent for “**Using Classified Text and Deep Learning Algorithms to Identify Risk and Provide Early Warning**” (U.S. Patent No. 9,552,548)., Intraspexion uses Deep Learning, **to read through millions of company emails to reveal the handful of high-risk emails in-house counsel should review to help avoid and prepare for potential lawsuits**



# Amazon Rekognition

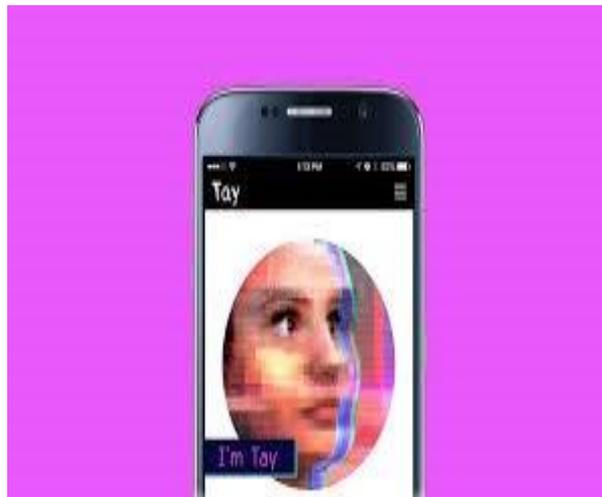
**FALSE MATCHES**



28 current members of Congress

## Chatbot Goes Wild on Twitter

- 2016, Microsoft's Twitter chatbot -- an experimental AI persona named Tay -- began tweeting abusive epithets and Nazi sentiments. "Hitler was right," and "9/11 was an inside job."
- , Tay was essentially parroting offensive statements made by other (human) users, who were deliberately trying to provoke her. Aimed at the coveted 18- to 24-year-old demographic, the chatbot was designed to mimic the language patterns of a millennial female



## Warring Wiki Bots

- Wikipedia uses a small army of automated software bot to update links, correct errors, and remove digital vandalism.
- In an [intriguing study](#) published at the online journal [PlosOne](#), researchers from the University of Oxford tracked the behavior of wiki edit bots from 2001 to 2010 . They discovered **that the bots regularly engage in online feuds that can last for years.** For instance, two bots given conflicting instructions for a particular task will circle back and correct one another, over and over, in a **potentially infinite loop of digital aggression.**



# Anyone want to guess what it retails for???

- **Sex robots with artificial intelligence**
- Harmony, an anatomically correct sex doll with a patented animatronic talking head with programmable personality and memory.
- CEO “ Think of it as comforting conversation companion like Apple's Siri, but it can have sensual conversations and tell naughty jokes.



# What is Good Enough?

- “If it’s better than a human, is it good enough?”
- Data Bias
- Explainability –**the missing link?** You put some data into the system, and out pops an answer --It doesn’t necessarily explain to you the precise chain of reasoning that led to the answer
- Shall we change the terms of the debate –from” artificial intelligence,“ to assistive intelligence.



As Chapple performed his repairs, the robot suddenly began to operate and placed a part down on Chapple's arm, pinning it. A co-worker pressed an emergency stop switch and triggered the assembly line's "teach" switch so that the robot would disengage and release Chapple.

25.

Instead of shutting down, the robot began to increase its force, crushing Chapple and grinding his body as the robot began to pull Chapple's upper torso and head further down the assembly line.

## Robots in the Docket?

- 2009, The British Royal Academy of Engineering published a report entitled 'Autonomous Systems: Social, Legal and Ethical Issues'. In it, they argued: '**[A]re autonomous systems different from other complex controlled systems? Should they be regarded either as 'robotic people' - in which case they might be blamed for faults; or machines** - in which case accidents would be just like accidents due to other kinds of mechanical failure.'
- **2017--European Parliament's Committee on Legal Affairs issued a draft report and motion** calling for a set of civil law rules that would govern the autonomy, manufacturing and use of robots
- The report suggested **creating a central registry for "smart autonomous robots"** so their ownership can be traced; **drafting a code of ethics for robot manufacturers and researchers** that reflects the values embodied in the EU's Charter of Fundamental Human Rights; **and the creation of a new category of "electronic person" similar to the laws which make a corporation a "person**

# What Might Mitigate the Risks?

- **Write a declaration of (machine) intelligence.** Define and articulate principles related to how your organization expects to use smart algorithms to drive performance and productivity. Include use cases and scenarios to illustrate its points. Give managers and workers a clearer sense of where AI/ML will augment their tasks and where it may replace or automate them
- **Employ radical repository transparency.** Review, verification, and validation are essential principles in data-rich, AI/ML enterprise environments. **Share ideas, data, and models!** Use repositories that encourage people and teams to post their data sets and models for review. You need visibility into what different groups are doing digitally. **Goal: expand enterprise-wide awareness without constraining bottom-up initiative.**
- **Create a trade-off road map.** Data science, artificial intelligence, and machine learning are dynamically innovative fields that rapidly and opportunistically evolve. Yesterday's active machine learning implementation may become tomorrow's passive AI/ML business process. As legacy organizations look to data, machine learning, and digital platforms to transform themselves, their road maps will suggest where management believes active AI/ML investments will be more valuable than passive ones. For example, customer-oriented AI/ML systems may merit different talent and trade-offs that focus on internal process efficiency

# Now More than Ever-Because People Don't Change

## Browser Beware: Wi-Fi Users Sign Over First-Born Children

By Ian Chant  
Posted 30 Sep 2014 | 18:00 GMT

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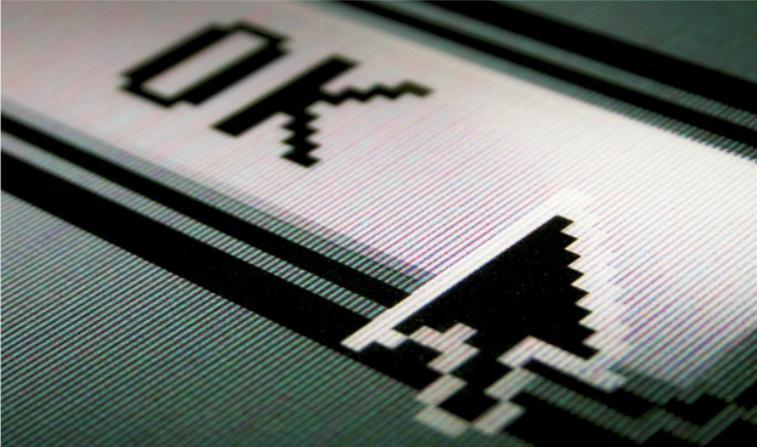


Photo: Jonas Van Remoortere/Getty Images

Are you reading all the terms and conditions before you click OK?

The results of a social experiment in London suggest that on-the-go Internet users are not being as careful as they should be when connecting to unfamiliar networks. In order to connect to a rigged Wi-Fi network set up by mobile security firm F-Secure, six users agreed to sign over their first born children to the company.

In the experiment, F-Secure set up a “poisoned” Wi-Fi hotspot on a table in Café Brera, a busy coffee shop in London’s Canada Square. To connect to the Wi-Fi network, which the company cobbled together from US \$200 worth of parts that included a Raspberry Pi microcomputer, a battery pack, and some rubber bands, users needed to agree to a specially constructed terms and conditions page. Those terms—which, again, six people agreed to—included the following notice: “In using this service, you agree to relinquish your first born child to F-Secure, as and when the company requires it. In the event that no children are produced, your most beloved pet will be taken instead. The terms of this agreement stand for eternity.”

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