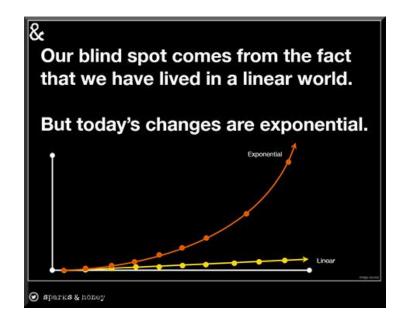
## The Exponential Pace of Change

Articles compiled by Daniel Christian | As of September 2016

The articles listed below demonstrate the *exponential pace of technological change* that many nations across the globe *are currently experiencing* and will likely be experiencing for the foreseeable future.

- Apple supplier Foxconn replaces 60,000 humans with robots in China from marketwatch.com
- There are now 260,000 robots working in U.S. factories from marketwatch.com by Jennifer Booton
- Google Tackles Challenge of How to Build an Honest Robot from bloomberg.com
- How do we teach robots right from wrong? Soon the problem won't be hypothetical from digitaltrends.com
   by Mark Wyner
- <u>The Next President Will Decide the Fate of Killer Robots—and the Future of War</u> from wired.com by Heather Roff and P.W. Singer
- New Report Predicts Over 100,000 Legal Jobs Will Be Lost To Automation from futurism.com

  An extensive new analysis by Deloitte estimates that over 100,000 jobs will be lost to technological automation within the next two decades. Increasing technological advances have helped replace menial roles in the office and do repetitive tasks.
- Move Over, Terminator: Russia Rolls Out Vikhr Combat Robot -- from https://sputniknews.com
- <u>Cambridge University is opening a £10 million centre to study the impact of AI on humanity</u> from businessinsider.com by Sam Shead
- Your Algorithmic Self Meets Super-Intelligent AI from techcrunch.com by Jarno M. Koponen
- Al doctors will become 'as ubiquitous as stethoscopes' from wired.co.uk
- Beyond Siri, The Next-Generation AI Assistants Are Smarter Specialists -- from fastcompany.com by Jared
   Newman | SRI wants to produce chatbots with deep knowledge of specific topics like banking and auto repair.



- Harvard PhD Explains How Google Search Bias Could "Shift 3 Million Votes" In Upcoming Election from zerohedge.com
- <u>Considering ethics now before radically new brain technologies get away from us</u> from the conversation.com by Andrew Maynard
- The Algorithms Are Taking Over: Who Controls Our Online Future? from forbes.com by Kalev Leetaru
- Microsoft's CEO Calls for Accountable AI, Ignores the Algorithms That Already Rule Our Lives from technologyreview.com by Tom Simonite
- Who will own the robots? -- from technologyreview.com by David Rotman
- Artificial Intelligence's White Guy Problem from nytimes.com by Kate Crawford
- <u>Is Al RACIST? Robot-judged beauty contest picks mostly white winners out of 6,000 contestants</u> -- from dailymail.co.uk by Stacy Liberatore and Abigail Beall
- Meet 'Ross,' the newly hired legal robot from washingtonpost.com by Karen Turner
- <u>Confidential health care data divulged to Google's DeepMind for new app</u> from futurism.com by Sarah Marquart
- Police Drones Multiply Across the Globe -- from dronelife.com by Jason Reagan
- Algorithms may save us from information overload, but are they the curators we want? from
  newstatesman.com by Barbara Speed | Instagram is joining the legions of social networks which use algorithms
  to dictate what we see, and when we see it.
- Two questions for managers of learning machines from sloanreview.mit.edu by Theodore Kinni
- All stakeholders must engage in learning analytics debate from campustechnology.com by David Raths
- <u>Retail inventory robots could replace the need for store employees</u> from interestingengineering.com by Trevor English



- The NSA wants to spy on the Internet of Things. Everything from thermostats to pacemakers could be mined for intelligence data. — from engadget.com by Andrew Dalton
- The latest tool in the NSA's toolbox? The Internet of Things from digitaltrends.com by Lulu Chang
- <u>Internet of Things to be used as spy tool by governments: US intel chief</u> from arstechnica.com by David Kravets

- <u>Automakers, consumers both must approach connected cars cautiously</u> from nydailynews.com by Kyle Campbell
- Scientists are just as confused about the ethics of big-data research as you wired.com by Sarah Zhang
- The White House is prepping for an Al-powered future from wired.com by April Glaser
- Judgment Day: Google is making a 'kill-switch' for AI from futurism.com
- The question of who owns the data is about to get a lot trickier from fortune.com by Barb Darrow
- Facebook is using artificial intelligence to categorize everything you write from futurism.com
- March of the machines from economist.com
   What history tells us about the future of artificial intelligence—and how society should respond
- In Wisconsin, a Backlash Against Using Data to Foretell Defendants' Futures from nytimes.com by Mitch Smith
- Policy paper | Data Science Ethical Framework from gov.uk
- What's Next for Artificial Intelligence from nytimes.com
- DARPA to Build "Virtual Data Scientist" Assistants Through A.I. from inverse.com by William Hoffman | A.I. will make up for the lack of data scientists.
- <u>Robot that chooses to inflict pain sparks debate about Al systems</u> from interestingengineering.com by Maverick Baker
- Military | A.I. Downs Expert Human Fighter Pilot In Dogfight Simulation from popsci.com by Coby McDonald
- Humans are willing to trust chatbots with some of their most sensitive information from businessinsider.com by Sam Shead
- The biggest mystery in AI right now is the ethics board that Google set up after buying DeepMind from businessinsider.com by Sam Shead
- <u>These are the decisions the Pentagon wants to leave to robots</u> from defenseone.com by Patrick Tucker The U.S. military believes its battlefield edge will increasingly depend on automation and artificial intelligence.
- Robots expected to run half of Japan by 2035 from engadget.com by Andrew Tarantola
- Adidas will open an automated, robot-staffed factory next year -- from businessinsider.com
- Tech leaders launch nonprofit to save the world from killer robots from csmonitor.com by Jessica Mendoza
- Foresight 2020: The future is filled with 50 billion connected devices from ibmbigdatahub.com by Erin Monday
- <u>Designing robots that learn as effortlessly as babies</u> from singularityhub.com by Shelly Fan
- Researchers have found a new way to get machines to learn faster from fortune.com by Hilary Brueck
- <u>Team showcase how good Watson is at learning</u> from adigaskell.org
- <u>Drone squad to be launched by Tokyo police</u> from bbc.com
- An advance in artificial intelligence rivals human abilities from todayonline.com by John Markoff
- Chatbots are coming to take over the world from telecom.economictimes.indiatimes.com by Pavel Naiya
- <u>China's Factories Count on Robots as Workforce Shrinks</u> -- from wsj.com by Robbie Whelan and Esther Fung Rising wages, cultural changes push automation drive; demand for 150,000 robots projected for 2018
- Researchers Are Growing Living Biohybrid Robots That Move Like Animals
   — from slate.com by Victoria
   Webster
- <u>Thermostats can now get infected with ransomware, because 2016</u> -- from thenextweb.com by Matthew Hughes
- Beware of biases in machine learning: One CTO explains why it happens -- from enterprisersproject.com
- Governments and nation states are now officially training for cyberwarfare: An inside look -- from techrepublic.com by Steve Ranger
- <u>Los Angeles police disarm an attempted murder suspect with a robot</u> -- from digitaltrends.com by Harrison Kaminsky

- The rise of robots: forget evil AI the real risk is far more insidious

  -- from theguardian.com

  It's far more likely that robots would inadvertently harm or frustrate humans while carrying out our orders than they would rise up against us
- Part Nano-Tech, Part Living Cells: Scientists Build A First-Ever Artificial Kidney from futurism.com Scientists at Vanderbilt University have developed a first-ever implantable artificial kidney.
- IBM Research and MIT Collaborate to Advance Frontiers of Artificial Intelligence in Real-World Audio-Visual Comprehension Technologies – from prnewswire.com
  - Cross-disciplinary research approach will use insights from brain and cognitive science to advance machine understanding