



## YEAR IN REVIEW 2010-2025

The Years in Review are not listed in any priority. It is a non-scientific, subjective review by [Jerome C. Glenn](#). They have been published by The Millennium Project since 2010.

### 2025 Year in Review

1. Trump takes over the U.S. White House
2. First commercially-funded successful moon landing by Firefly's [Blue Ghost](#)
3. Massive US government cuts lead by Elon Musk
4. DeepSeek and Manus AI Agent show China's rapid progress on AI
5. War in Ukraine and Sudan continues other regional tensions increase
6. France, UK, others recognize Palestine State; Semi-cease fire in Gaza
7. Humanoid Robots going commercial: Tesla, Unitree, Boston Dynamics, others
8. Germany's fusion plant sets world record for [sustain fusion for 43 seconds](#).
9. Pope Francis dies; first American Pope elected as Leo XIV
10. China has record \$1 trillion trade surpluses despite tariff policies
11. Meta's new Ray-Ban [smart glasses](#) for augmented reality (AR) commercialized
12. Gen Z overthrows corrupt governments in Nepal and Madagascar
13. Job openings for software coders are [beginning to fall](#).
14. [Quantum Computing](#) is becoming practical: drug discovery and materials science
15. Race to build data centers in orbit to save energy, cooling water, environ'al impacts
16. Largest number of armed conflicts in history
17. First G20 meeting held in Africa, Johannesburg, South Africa
18. The first World Humanoid Robot Games were held in Beijing
19. Direct air [CO<sub>2</sub> capture](#) business star-ups begin.
20. Trump starts Traffic Wars, [cuts US Science 25-50%](#) cuts USAID and UN dues
21. Hektoria Glacier in Antarctica nearly [50% disintegrated](#) in just two months.
22. Renewables less costly than fossil fuels
23. Agentic AI, local AI control (dual engine AI), S. Korea leading [6G race for 2028](#)
24. VR used to train medical surgeons
25. [Synthetic biology](#) engineered bacteria to diagnose and treat disease.
26. [Structural battery composites](#), using structure of cars, planes, robots, for energy use.
27. UN Security Council hold third session on AI as a national security issue
28. Global warming continues 2015-2025 hottest decade, CO<sub>2</sub> emissions record high
29. Brazil's Bolsonaro received 27-year prison sentence for leading coop attempt
30. Japan elected Sanae Takaichi as its first female prime minister
31. The first paraplegic to go into space on 9-minute trip on Blue Origin
32. There were 321 rocket launches in 2025, of which Space X launched 172.
33. [Cell reprogramming](#) advances by tissue nanotransfection moves toward reverse aging
34. Lab-grown cells [restored brain function](#) in aging mice.



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## 2024 Year in Review

1. Russian opposition leader Alexei Navalny “dies” in prison.
2. Global temperature continues to pass [1.5°C threshold](#) above pre-industrial levels.
3. Donald Trump fined \$175 million for years of business fraud in New York and found guilty of election issue coverup.
4. Boeing maroons two astronauts on the International Space Station
5. Claudia Sheinbaum elected as the first female president of Mexico.
6. El Capitan, in the U.S. becomes fastest computer in the world (1.742exa FLOPs)
7. US Supreme Court grants Presidential significant immunity.
8. Donald Trump elected Present of the United States
9. Both US and China initiated separate UN resolutions on AI; both were adopted by UN General Assembly and both supported by each other.
10. Massive protests against Israel’s conduct of the war in Gaza.
11. International Criminal Court issues arrest warrant for PM Netanyahu of Israel
12. AI breakthroughs continue to accelerate and integrate with robots.
13. China and the EU create first legal framework for artificial intelligence.
14. The International Space Station moved twice to avoid orbital debris
15. China claims Tongtong is the first [AGI robot](#) with curiosity like a 3 or 4 year old.
16. [Water molecules](#) confirmed on two asteroids and a [planet 280 light years away](#)
17. UN Summit of the Future approves [Pact for the Future](#)
18. UN Climate COP 29 held in Baku.
19. China’s Chang-e 6 returned a sample from the far side of the moon.
20. First private sector soft landing on the moon by Intuitive Machines and Falcon 9.
21. Russian war on Ukraine continues makes little progress
22. Civil wars in Sudan and Myanmar continue
23. Liquid water discovered on Mars 7 miles below the surface.
24. Paris Summer Olympics reinforces the spirit of common humanity.
25. Bitcoin passes US\$100,000
26. Nobel prize for physics and chemistry awarded to AI innovators
27. The UK becomes the first G7 country to phase out coal power
28. First-ever "close-up" image of a star outside the Milky Way Galaxy
29. Global warming continues as 2024 is the hottest year on record
30. Council of Europe’s [AI Convention](#) binding treaty signed by 11 countries so far.
31. Neuralink brain implanted paraplegic person plays chess with his thoughts alone.
32. Taylor Swift’s world tour generated more than \$10 billion on local economies.
33. Global warming cost the world [US\\$310 billion](#) in damages.
34. Assad flees to Moscow as 13-year civil war ends in Syria
35. Google’s [Willow superconducting quantum computing chip](#) improves accuracy, error reduction as the numbers of qubits increases



## 2023 Year in Review

1. ChatGPT wakes up the world to future AI impacts on education, work, culture.
2. Turkey/Syria Earthquake kills 50,000, triggers building codes new enforcement.
3. Russian invasion of Ukraine continues.
4. Europe survived winter with new energy sources.
5. Deepfakes, disinformation proliferates, no rules for information warfare.
6. UN Treaty to protect [30% of the oceans'](#) biodiversity by 2030 open for signature
7. Every neural connection mapped in a larval fruit fly.
8. International Criminal Court (ICC) issues arrest warrant for Vladimir Putin.
9. Former President Trump is indicted 4 times with total of 91 charges.
10. First X-ray image of a [single atom](#).
11. First [space solar power](#) transmission from orbit to earth by Caltech.
12. Pure chicken meat from genetic material without chickens USDA approved
13. UN Security Council explores the security implications of artificial intelligence
14. China creates first national laws to [regulate generative AI](#)
15. July-October were the hottest months in recorded history
16. Massive demonstrations in Israel over reducing the supreme court's power
17. Hamas invades Israel, global condemnation of Israel for devastating response.
18. China passes the US in number of scientific articles in the [Nature Index](#).
19. India passes China as the most populous nation
20. Building blocks of life (methenium, CH<sub>3</sub><sup>+</sup> (and/or carbon cation, C<sup>+</sup>) detected in [interstellar space](#).
21. FDA approval for testing [brain chips implants](#) in humans by Neuralink
22. World Summit II on Parliamentary Committees for the Future held in Uruguay.
23. India lands on near moon's south poll, while Russia crashed a few days before.
24. Human [brain activity translated](#) into continuous stream of text.
25. Organized crime received [\\$2.2 trillion](#) from cybercrimes, while it cost business and individuals [\\$8 trillion](#) in 2023.
26. European Court of Human Rights to hear global warming case against 33 governments (first serious example of intergenerational law).
27. US and China, plus 27 other countries sign Bletchley Declaration on international cooperation to develop safe AI
28. Alzheimer's disease onset decreased by 35% by [Donanemab](#) drug.
29. Mico- and [nanoplastics](#) pass the blood-brain barrier in mice.
30. Electronics grown inside living tissue furthers new field of [bioelectronics](#).
31. The global average temperature temporarily [exceeds 2°C](#) above the pre-industrial average November 17th for the first time in recorded history.
32. COP28 in Dubai and COP29 in Baku announced, both oil-dependent economies
33. Google claims Gemini has advanced reasoning beyond GPT-4
34. Presidents Xi and Biden agree to joint US-China AI safety working group



## 2022 Year in Review

1. First genetically modified [pig's heart transplanted](#) into a living human lived 2 months.
2. Russia invades Ukraine.
3. Finland and Sweden ask to join NATO.
4. China's Zhurong rover landed on Mars.
5. New Covid mutations continue around the world, but overall Covid pandemic decreases.
6. Worldwide inflation driven by supply chains disrupted by Covid and Russian invasion of Ukraine, plus massive US and other national financial covid relief infusions of money.
7. NASA's James Webb telescope shows closest origins of the universe.
8. ISO issues organization AI governance [ISO/IEC 38507](#).
9. US House Hearings proved Trump lead attempted coup refusing peaceful transition.
10. [Non-Cow animal protein milk](#) using 99%less water, 97% fewer GHG, 60% less energy.
11. [Cell-based Chicken](#) on sale in Singapore and [US FDA approves](#) Upside for sales in US.
12. [Robot taxis](#) now in operation in Las Vegas by Uber and [San Francisco](#) by Waymo, also in Wuhan and Chongqing, China by [Baidu](#).
13. Finland's World Summit on [Parliamentary Committees on the Future](#) initiates world movement for all parliaments to have their own Committees on the Future.
14. UN agrees to UN Summit on the Future in 2024.
15. [Green House Gases](#) reach the highest level since the industrial revolution.
16. One third of Pakistan underwater costing \$30 billion due to global climate change.
17. Natural disasters (storms, floods, fires) cost [\\$260 billion](#).
18. UN Climate Conference in Egypt ([COP27](#)) payment for global warming damages.
19. NASA proves asteroid's trajectory can be altered to save the earth from future collision.
20. Computer-connected lab-grown [human brain cells](#) learned how to play pong without being connected to a body.
21. [Human genome](#) sequenced in just 5 hours and 2 minutes.
22. US Dept. of Energy's Frontier computer at Oak Ridge sets world record as [fastest computer](#) at 1.1 exaflops/second.
23. First photograph of the [black hole](#) at the center of our galaxy.
24. As of mid-2022 there were [103 million refugees or displaced persons](#) (mostly from Syria, Venezuela and Ukraine).
25. [UN Biodiversity](#) COP 15 agreed to protect 30% of the Earth's land and water by 2030.
26. COVAX delivered over 1 billion doses to poorer nations, half given by Pfizer.
27. Queen Elizabeth dies after 70 years rein over the United Kingdom.



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28. [ChatGPT](#) interactive AI wakes up the world to future possibilities of advanced AI.
29. US National Lab demonstrates [fusion](#) can make more energy than it consumes.
30. Argentina wins the World Cup.



## 2021 Year in Review

1. The Pandemic cost the global economy [US\\$28 trillion](#), between 2020 and 2025 estimates the IMF and continues to mutate with new variants becoming the majority of infections.
2. Over [9 billion](#) Covid vaccine shots have been given in 184 countries by year end.
3. About [5.8 million Covid reported deaths](#); 12.6 million attributable to COVID-19, including unreported deaths.
4. Anti-Covid pills approved (Pfizer's Paxlovid and Merck's Molnupiravir).
5. Joe Biden becomes US President, creates massive US vaccination and economic recovery program, commits \$4 billion to GAVI for international vaccines, other overseas economic recovery, and rejoins the Paris Climate Accords.
6. Trump extremists invade the US Capitol fail to stop the election certification.
7. UN Secretary-General releases "[Our Common Agenda](#)" as the most future-oriented UN reform document ever produced by the UN SG's Office.
8. First part of IPCC's 6<sup>th</sup> assessment: "the effects of human-caused climate change are now [widespread, rapid, and intensifying](#)."
9. Historic droughts, fires, floods [cost \\$170 billion](#) \$20 billion more than last year.
10. COP26 US-China joint statement, reduce methane 30% by 2030 which focuses on agriculture, keep to 1.5°C goal but current country pledges will not make it.
11. US National Intelligence Council's report: [Preliminary Assessment: Unidentified Aerial Phenomena](#) [UFOs] showed that UFOs are real, but not understood.
12. James Webb space telescope launched to see [origins of the universe](#), birth of galaxies, and [potential for life](#) on distant planets.
13. Scientists create simulated [space warp bubble](#) that shows [warp drive](#) for interstellar travel might be possible.
14. Reusable private sector rockets launched Branson and Bezos into sub-orbital space tourism, while Musk launches [three-earth-orbital](#) private tourism.
15. NASA flies [helicopter](#) on Mars and makes [oxygen](#) from Martian atmosphere.
16. China lands a robotic rover on the surface of [Mars](#).
17. [China launched](#) the crewed Shenzhou-12 spacecraft to dock with Tianhe Space Station.
18. Russia blows up its own satellite creating 1,500 new pieces of space junk in its [anti-satellite test](#).
19. The world embraces [5G without biological impact studies](#).
20. Cyber and information warfare continue to expand beyond public understanding.
21. Turkish [Autonomous AI drones](#) used in Syria, Libya and by Azerbaijan against Armenia.
22. North Korea continues missile tests including [submarine launched missiles](#).
23. [Treaty](#) on the Prohibition of Nuclear Weapons adopted by the UN in 2017 entered into force after 50 countries ratified the treaty by January 2021.
24. Increased tensions (Russia and Ukraine) (China and Taiwan) and armed conflicts continue in Ethiopia, Libya, Mali, Myanmar, Somalia, Syria, Yemen.



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25. US and other NATO allies pull out of Afghanistan; Taliban regains power.
26. The [G20](#) endorsed [G7](#)'s decision to create a global minimum corporate tax.15%
27. Computer chip shortage shows global dependency on Taiwan.
28. Elon Musk's Neuralink fabricated computer-connected fibers to individual neurons in the [brain of monkeys](#) to play pong without an external interface.
29. Elon Musk becomes the [richest man in history](#).
30. Japan's [Fugaku](#) continues as the fastest public supercomputer at 442 petaflops.
31. Chinese start-up SpinQ creates [desktop quantum computer](#).
32. IBM's [127 qubit chip](#) is available for commercial use and IBM has produced a 2-nanometer chip with 50 billion transistors.
33. Total market cap of cryptocurrencies passed [\\$3 trillion](#) November 2021 and [El Salvador](#) makes Bitcoin a national currency along with US dollar.
34. US government [penetrated blockchain](#) to recover Bitcoins for Colonial Pipeline.
35. NFT (nonfungible token) JPG file [digital art](#) sold for \$63 million.
36. WHO approves first [Malaria vaccine](#).
37. Malawi opens the first [3-D printed school](#) building.
38. [Pandora papers](#) exposed secret offshore accounts of 35 world leaders, including 130 billionaires.



## 2020 Year in Review

1. COVID-19 brought the world to a grinding halt, increased tele-everything & AI
2. The pandemic caused first global “time out” for humanity to rethink everything
3. The Internet connects about 60% of humanity: [5 billion](#) people
4. US President Trump Impeached twice
5. CERN has contained antimatter (antihydrogen) for 24 hours.
6. Iranian General Qasem Soleimani killed in US drone strike
7. UK withdraws from the EU
8. Tokyo Summer Olympics postponed to 2021
9. Polio eradicated from Africa
10. At least [1.5 billion students](#) were out of school at the peak of the pandemic
11. The world fell into recession caused by the Covid pandemic [-4.4% decline](#)
12. Stock Market falls [2997 points](#) on March 9<sup>th</sup> then passes historical high of 30,000
13. Jeff Bezos becomes first to have a net worth over \$200 billion.
14. Carbon emissions fell a record 7%, yet CO2 ppm rises to new records
15. 2020 likely to be hottest or second hottest year on record.
16. Over [1.3 million](#) recreational drones in US; [100+ countries](#) have military drones
17. 995 satellites were launched in 2020; [nearly 3000 satellites](#) orbit the earth today
18. Deinococcus Radiodurans bacteria adapted its DNA to [live in outer space](#)
19. Black Lives Matter movement in the US spreads worldwide
20. China announced a quantum computer calculated in 200 seconds at room temperature what a supercomputer would take [2.5 billion years to complete](#).
21. Joe Biden beats Donald Trump for the US presidency
22. First Asian-Black Woman elected Vice President of the United States
23. Worst invasion of desert locusts in East Africa in 70 years
24. [Japan](#) brought back samples from an asteroid 300+ million kilometers away
25. [42 journalists killed](#) for being journalists
26. Terrorism deaths fell for the [past five years](#)
27. UAE, Bahrain, Sudan, Morocco, Bhutan create diplomatic relations with Israel
28. Beirut Lebanon Port massive explosion kills 190 people August 4<sup>th</sup>
29. Hong Kong public uprising against PRC’s national security law for Hong Kong
30. Climate change leads to record number of hurricanes, fires, and floods
31. Political polarization continues to worsen; social discord increases
32. Video conferencing goes mainstream for friends, education, work, and health
33. Ruth Bader Ginsburg’s death brings new conservative U.S. Supreme Court
34. Plant-based hamburgers become available in fast food restaurants
35. [CRISPR gene editing](#) for home test to identify COVID RNA for precision testing.
36. SpaceX brings crew to the Space Station, as first private space craft to do that.
37. Vaccines made in record time and first time from mRNA by Pfizer and Moderna
38. Venezuela, Yemen, and Syria continue downward spiral
39. Elon Musk’s Neuralink fabricated computer-connected fibers to individual neurons in the brain of pigs.



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- 40. China plants PRC flag on the moon during lunar sample return
- 41. Thousands of [12,500 years old cave paintings](#) alone 8 miles long in the Amazon
- 42. Largest set of cyber-attacks hit the United States



## 2019 Year in Review

1. Public quantum computing via the [IBM cloud](#); Google (54 qubits) quantum supremacy (not publicly available) passed [China which has 50-qubit](#) device.
2. First photo of a [Black Hole](#)
3. Atmospheric CO<sub>2</sub> reached 411 ppm in May 2019 (in May 1958 it was 317.5)
4. Global Warming declared emergency by [11,000 scientists](#) in BioScience
5. Greta Thunberg of Sweden triggers increased attention to global warming
6. China first to land on the dark side of the Moon.
7. Islamic State (ISIL) lost its land; Russia/Turkey take land left by the US
8. Public protests in Algeria, Bolivia, Chile, Colombia, Ecuador, Ethiopia, France, Haiti, Hong Kong, Indonesia, Iran, Iraq, Kashmir (Internet Blackout by India), Lebanon, London, Montenegro, Russia, Sudan, Venezuela, and Zimbabwe
9. US-China trade war
10. President Trump Impeached
11. [Brussels Bans 5G](#) due to insufficient health/biological impact studies
12. [Over 400 mass](#) shootings in the USA
13. US Stock Market hits record Dow passes 28,621.
14. Measles increasingly [spread worldwide](#) due to lower vaccination rates
15. North Korea continues to test missiles in violation of UN Security Council
16. Brexit continues in limbo
17. Notre Dame burns in Paris
18. Same-Sex Marriage Legalized in Taiwan and [Austria](#)
19. China increases facial AI surveillance; San Francisco bans [facial recognition](#)
20. Space X launches 60 Internet Satellites
21. Ebola Vaccine approved, while Ebola in the Congo continues
22. [Chip-to-chip quantum teleportation](#) and multi-photon entanglement in silicon
23. Large areas of the Amazon rain forests burn out of control
24. A 315-billion tonne iceberg broke off Antarctica.
25. [Neurolink](#) connects single neurons to single sensors connected to external computer
26. Finland elects the youngest PM in the world.
27. US pulls out of Intermediate-Range Nuclear Forces Treaty (INF)
28. Volkswagen Beetle production ends
29. First NASA all-female spacewalk outside the International Space Station.
30. Venice flooding emergency
31. Pope Francis abolishes pontifical secrecy in sex abuse cases
32. [Deep fake software publicly available](#) decentralized information warfare
33. [Plant-based hamburgers](#) go mainstream in KFC, Burger King, McDonalds, others
34. Venezuela, Yemen, and Syria continue downward spiral
35. 50<sup>th</sup> Anniversary of the first Moon Landing, ARPANET, and Woodstock.



## 2018 Year in Review

1. Fusion maintained for [100 seconds](#) Wendelstein 7-X
2. North and South Korea teams together in Winter Olympics; allowed family visits
3. China doctor uses CRISPR-cas9 for first [gene edited embryo](#) (to prevent AIDS)
4. IBM's Project Debater [AI defeated](#) a human in a debate
5. China's constitution changed to allow President Xi Jinping to [rule for life](#)
6. Syria, Venezuela, Yemen continue to get worse
7. [Over half the world](#) is middle class (US\$ 11-110/day)
8. Democrats regain US House of Representatives
9. China-US trade scansions, and NY Stock market volatility
10. Political leadership uncertain in US, UK, France, and Germany while political leadership seems more certain in Russia and China
11. Stephen Hawking dies
12. Canada legalizes Marijuana (Uruguay did before)
13. US Government reports [global warming](#) forecasts are more serious than before;
14. [4th hottest year](#) on record; 20 of earth's hottest years occurred in last 22 years
15. CO2 ppm reached [411.24](#) in May 2018; May 1998 it was 369.42
16. NASA returned to [Mars](#) for analysis inside of the planet
17. Several Russian [strategic nuclear bombers](#) land in Venezuela
18. [107 of 109](#) space launches successful; SpaceX delivered 64 satellites on one rocket
19. Elon Musk launched a Tesla car in space to test payload capacity of new rocket
20. China launched spacecraft to land on the far side of the moon in January
21. Voyager 2 left the solar system (Voyager 1 left in 2012)
22. Apple reaches US\$1 Trillion value, then falls back a few months later
23. Extreme weather caused [4<sup>th</sup> highest number of insured losses](#)
24. [About 2 million](#) drones fly in the US expect dramatic increases worldwide
25. 10-minute [cancer test](#) developed in Australia
26. Saudi Arabia lets women drive, but executes a journalist in their embassy
27. France beat Croatia to win the World Cup
28. [5G wireless](#) telecommunications technology
29. US President Trump pulls out of Iran agreement
30. Russian [Information Warfare](#) attacks found far more invasive on US election than previously known via Instagram, Facebook, Twitter and others
31. Over 200 top US executives, politicians, entertainers, [fired for sexual misconduct](#)
32. Based on program upgrades, four additional binary black hole mergers detected from data recorded in 2015, 2016, and 2017 – bringing the total to [10 black hole mergers and](#) one binary neutron-star merger



## 2017 Year in Review

1. Most babies born this year are likely to see the year 2100
2. Me Too Movement knocks out stars in politics, sports, and the media, and spreads around the world exposing male abuse of women
3. First successful human embryo genetically edited
4. China announced quantum entanglement between satellite and ground station
5. Putin denies thousands of Russian-sourced bots targeted at specific US voter-groups and regions via Twitter and Facebook accounts with thousands of hate-Hillary and pro-Trump messages reaching over 100 million US voters
6. Donald Trump became US President with 3 million fewer votes than Hilary
7. President Trump announced withdrawal from the Paris Agreement and UNESCO, while recognizing Jerusalem as the Capital of Israel
8. Mugabe ousted in Zimbabwe, Zuma ousted in South Africa, Yahya Jammeh ousted in Gambia
9. Venezuela accelerates its downward spiral
10. Cultural genocide, mass killings, rapes of Rohingya by Myanmar Army
11. 2017 likely be the hottest year on record in the absence of the El Niño; July 2017 had tied July and August 2016 as the hottest month on record
12. SwissRe estimated global warming assisted natural disasters during 2017 cost insurance industry about US\$100 billion (Caribbean hurricanes cost \$290 billion)
13. Yemen : 1 million got Cholera; 8 million near starvation; water nearly gone
14. EU fines Google \$2.7 Billion for anti-trust activities
15. Bitcoin hits \$19,500 before retreating; NY's Dow hits record 24,792
16. SpaceX relaunched and re-landing a used Falcon 9 rocket booster saving \$18 million per launch.
17. Xi Jinping sets 5-year agenda at China's 19th Party Congress China including the Belt and Road massive infrastructure program and AI leadership by 2030
18. North Korea has 2,000 full-time hackers into financial systems (BBC)
19. First observation of gravitational waves from collision of [two neutron stars](#).
20. North Korea tests hydrogen bomb and ICBM capable of reaching the USA
21. Quantum entanglement with 10 qubits on a superconducting circuit achieved
22. Defeat of ISIS/ISIL/IS control of Mosul most of the lands it had controlled
23. Australia became the 25th country to legalize same-sex marriage
24. Narrow AI proliferates from medical diagnosis to home assistants; even an AI robot opened a conference in South Korea and given citizenship in Saudi Arabia
25. Emmanuel Macron provides a new face for European leadership



## 2016 Year in Review

1. Paris Agreement on Climate Change entered into force
2. Hottest year on record (again) and highest CO2 ppm in recorded history
3. Rapid progress in genome editing with CRISPR-Cas9
4. Syrian conflict continues to get worse
5. ISIL loses most of its territory
6. Colombian Government and FARC end longest bar in Latin America
7. IAEA verifies Iran met Nuclear Framework Agreement goals
8. Google's AlphaGo Beat Korean Go champion
9. AI's rapid proliferation from Google's Translate to Amazon 's Echo
10. Brexit
11. First vertical return landing of space rocket
12. Fidel Castro and John Glenn die
13. Microsoft's HoloLens
14. Failed Military Coup in Turkey
15. OECD adds Latvia as 35<sup>th</sup> Member
16. Zika Virus spreads across the Americas
17. Summer Olympics in Rio Janeiro, Brazil
18. North Korea conducts 5th Nuclear Test, claims a hydrogen bomb test
19. Bob Dylan gets Nobel Prize for Literature
20. Putin orders cyber-attacks, fake news, infowar against Hillary Clinton's election
21. Hillary Clinton wins USA vote; Donald Trump wins electoral college
22. ICC sentences Ex-Bosnian Serb leader Radovan Karadžić to 40 years
23. 214,000 offshore companies' 11.5 million documents exposed in Panama
24. NASA's Juno went into Jupiter's orbit on July 4<sup>th</sup>
25. US and Russia stay in the International Space Station for record 340 days
26. Baby born in Mexico with DNA from 3 parents (mitochondrial transfer)
27. Ecuador and Italy get major Earthquakes
28. 70-year-old Indian women gave birth to baby
29. 20<sup>th</sup> Anniversary of The Millennium Project (smile).



## 2015 Year in Review

1. UN Climate Change Agreement in Paris
2. Hottest year on record
3. Gene editing made much easier via CRISPR, could alter human evolution by germ-line engineering
4. [Gravitational waves detected](#) from the collision of two black holes
5. Running water discovered on Mars
6. Skin cells turned into stem cells
7. Mass migration into Europe
8. Rise of ISIS, ISIL, IS, Daesh and Boko Haram
9. Russia takes Crimea
10. Trans-Pacific Partnership (TPP) trade agreement
11. Greek financial crisis
12. Earthquake in Nepal nearly 9000 die
13. US-China joint global warming statement on new goals
14. Pope's Encyclical Letter on global warming
15. Solar Impulse – solar electric airplane circumnavigates the globe
16. US-Cuba opens diplomatic relations
17. US Supreme Court ruling same-sex marriages legal
18. Global *Je suis Charlie* demonstrations against ISIL attacks in Paris
19. Russian plane shot down over Egypt
20. Nuclear Framework Agreement with Iran
21. 3D printing and drones became mainstream
22. China expands Island construction in South China Sea
23. Environmental movement is back: Keystone XL Pipeline & Climate Agreement
24. Carteret Islands environmental (sea-level) refugees (Papua New Guinea)
25. Most UN Millennium Development Goals reached for 2015; Sustainable Development Goals set 2030
26. 70th Anniversary of the United Nations
27. Fly-by of Pluto video transmission received
28. Vertical landing of two kinds of reusable rocket sections.
29. Price of oil falls dramatically
30. Costs of security for public spaces and cyberspace increase dramatically



## 2014 Year in Review

1. US-China joint cooperation on reducing greenhouse gases
2. Record growth in US and China's stock markets
3. 127 billionaires have pledged to give half their wealth to philanthropic causes
4. 2014 expected to be the hottest year in recorded history
5. CO2 emissions estimated to be 2.3% more than in 2013.
6. Hybrid synthetic DNA replicated and grew (A third base pair (d5SICS and dNaM) added to natural E.coli DNA two base pairs (A-T & C-G))
7. India's spacecraft reached Mars; European's spacecraft landed on a comet
8. Antares rocket, SpaceX, and Virgin Galactic spacecrafts crash/blowup
9. Syrian civil war continues over 2 million refugees
10. Syrian chemical weapons surrendered
11. ISIS, then ISIL, then IS beheadings; new US and others' airstrikes in Iraq/Syria
12. One Malaysian Airplane disappears, another shot down over the Ukraine
13. Russia takes Crimea and invades Ukraine (said with military volunteers)
14. Falling oil prices, falling Ruble, and increasing inflation in Russia
15. Mt Gox largest Bitcoin exchange failure
16. Ebola kills 7,000 across West Africa (many more die of Malaria each year)
17. 3D Printer on the International Space Station prints a socket wrench
18. Private drones and computer risk watches begin to proliferate
19. Argentine court gave Orangutan personhood rights for bodily autonomy.
20. Pope Francis criticizes Vatican management for pathology of power
21. First successful use of Simon's algorithm on D-wave quantum computing
22. Brain to brain computer mediated communications demonstrated
23. A computer program Board of Directors Member for Deep Knowledge Ventures
24. Panama and Suez Canals massive expansions
25. Over half of all animals gone in less than 50 years (Living Planet Index)
26. Malala Yousafzai shares Nobel Prize for Peace
27. US-Cuba diplomatic relations
28. New Government in Iraq
29. US combat troops leave Afghanistan



## 2013 Year in Review

1. New Pope sets a new tone for the 1.2 billion Roman Catholics
2. Global Slavery Index estimates there are about 30 million slaves in 2013.
3. Nearly 40% of humanity uses the Internet
4. Malala Yousafzai survives Taliban assassination and becomes a new world force
5. Nelson Mandela's passing reminds the world of greatness
6. The largest petition to recall a government in history: 22 million sign petition in Egyptian for Morsi's resignation
7. Egyptian military crackdown on the Moslem Brotherhood
8. China lands a robot rover on the Moon, India launches spacecraft to Mars
9. Elon Musk continues private sector space program SpaceX Falcon 9 launching a geostationary satellite at 1/3 the cost
10. Syrian Civil War worsens while it agreed to disarm chemical weapons
11. Hassan Rouhani opens Iran to the West and signs nuclear processing agreement
12. No. Korean conducts 3<sup>rd</sup> underground nuclear bomb test and executes Pres's uncle
13. China tensions with Japan & neighbors increase; US & China warships monitor
14. US Affordable Health Care Website problems
15. CO<sub>2</sub> passes 400 parts per million in the atmosphere; 2013 7<sup>th</sup> hottest year recorded
16. Typhoon Haiyan hit the Philippines with the most powerful tropical storm to make landfall on record with gusts reaching 235 mph.
17. Shanghai and California initiate cap and trade systems
18. First hamburger publicly cooked and tested from pure meat tissue grown without growing a cow
19. UN adopts the Arms Trade Treaty of conventional weapons
20. Edward Snowden release of US intelligence wiretapping heads of state.
21. Largest meteor in a century hits Russian city of Chelyabinsk
22. USA makes recreational use of marijuana legal in Colorado and Washington and Uruguay becomes the first country to make it legal to produce and sale marajuana
23. US Government shutdow for 16 days; Tea Party begins to lose power in the US
24. Human adult cell nuclei inserted in egg cells with previous nuclei removed that produced new embryonic stem cells clonded for new stem cell line.
25. Higgs particle confirmed that gives rise to matter
26. Google Glass demonstrated
27. President Obama announces Human Brain Initiative
28. Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report
29. The were 628 recorded cyber-attacks over a 24 hour period on July 24, 2013 with majority targeting the USA



## 2012 Year in Review

1. Humanity continues to be succeeding /winning more than it is losing, according to the 28 variables in the State of the Future Index
2. Higgs-like Particle discovered that may explain how matter is created
3. Skydive from the edge of space (24 miles) going faster than sound (Mach 1.24)
4. Moslem Brotherhood takes over the leadership of Egypt
5. Egypt's Morsi goes from world hero (cease fire agreement) to world pariah dictator within 24 hours
6. China and its ocean neighbors contest boundaries increasing tensions with and among Japan, Philippines, Vietnam, Malaysia, and Brunei
7. North Korea successfully launches intercontinental missile for orbital satellite
8. Wikipedia and others went dark to successfully block the US Congress's SOPA (Stop Online Piracy Act) and PIPA (Protect IP Act).
9. Big Data becomes popular subject for decisionmakers to explore how to use
10. China's third human space launch carrying the first Chinese woman into space rendezvoused with China's Space Lab
11. SpaceX's Dragon is the first successful private sector station re-supply vehicle
12. Mars Landing of Curiosity Robot
13. China proposes space power collaboration with India
14. Driverless cars by Google are legal in US (California, Florida, and Nevada)
15. President Obama's endorsement of Gay Marriage
16. London Olympics – nurtures spirit of world peace
17. Facebook's IPO financial loss
18. Pope's assistant exposes some of the Vatican's inner political corruption.
19. Severe political stalemate in Washington, D.C., US continues
20. More than 100 journalists have been killed so far this year, making 2012 the deadliest year for media since UNESCO began keeping records on the issue
21. Syria's civil war accelerates.
22. Likely 2012 will be the hottest year in US recorded history
23. Climate continues to change: USA is 60% in drought, super hurricane Sandy, heavy flooding in Bangladesh, India, Myanmar, Nigeria, North Korea, Pakistan, Philippines, Romania, Russia, Singapore, UK
24. Euro financial crisis continues with riots especially in Greece and Spain



## 2011 Year in Review

1. World grew to 7 billion people
2. Arab Spring/Awakening
3. Occupy Movements initially on Wall Street
4. Other protests took to the streets in Greece, Russia, China, Spain, others
5. Japan Disasters
6. Tenth Anniversary of 911 Terrorist Attacks
7. Bin Laden Killed
8. US pulled out of Iraq
9. Steve Jobs Died
10. Tablet computers
11. Space Shuttle retired
12. China produced more cars than the US or Japan
13. Severe political stalemate in Washington, D.C., US
14. Robot 25% of Japan over 65 years old
15. Robonaut 2 humanoid robot (without legs) on International Space Station
16. IBM Watson computer beats human Jeopardy champions
17. Super High Vision 7,680 by 4,320 parcels created by Sharp is 16 times HD resolution
18. Brittan's Royal Wedding
19. Unprecedented volume of Methane found bubbling up from shallow Arctic sea floor
20. Large Hadron Collider discovered a particle composed of a quark and anti-quark
21. Programmable quantum photonic chip
22. 26 Year old in charge of nuclear weapons in North Korea
23. More Internet users in China than the entire population of the USA



## 2010 Year in Review

1. 2010 was the warmest year the earth has yet recorded.
2. China passed Japan in 2010 to become the world's second-largest economy behind the United States, and has the second largest number of billionaires in the world.
3. BP Gulf Oil catastrophe
4. Wikileaks
5. Philippines may pass India this year as the largest call center than India – Financial Times.
6. Airports across Europe closed for a week by Volcano ash (Eyjafjallajökull) causing chaos for millions.
7. North Korea's sinking a South Korean ship and shelling one of its islands.
8. Stuxnet computer worms attacking Iran's nuclear program.
9. Financial crises and severe government cut backs across much of Europe.
10. Synthetic biology breakthrough creating an artificial life form.
11. US health care law
12. Haitian earth quake and cholera, Pakistan floods
13. Mexican organized crime violence continues to escalate
14. More electronic than paper books sold by Amazon.
15. Tea Pot boils in the USA
16. Sarah Palin shots a defenseless animal.
17. Gays ok in US Military.
18. Polar Ice continues to melt faster than forecasted, while few results in Copenhagen and Cancun.
19. Frozen water discovered on the Moon – One the lunar pole about 600 million metric tons (158 billion gallons) in 40 craters.
20. H1N1 declared a pandemic
21. US combat troops out of Iraq