

COUNTDOWN TO THE SINGULARITY

———— 2013 – 2038 ————

Following are the predicted future milestones we will encounter during our 25-year Abundance 360 journey. These predictions are made by Peter, A360 speakers and selected members of the Singularity University faculty.

2018

Quantum Supremacy Achieved: The first demonstration of a quantum computation that can't be simulated with classical supercomputers is announced.

Emotion AI will become embedded into conversational interfaces. It will be socially acceptable to scream angrily at Alexa. She might respond with something like, "Please don't yell at me, that hurt my feelings."

2020

The 5G Network unleashes **10 – 100 Gigabit connection speeds** for mobile phones around the world.

AI based medical diagnostics & therapy recommendations are used in the majority of US healthcare.

Flying car operations take off in a few cities in the world.

Practical Quantum Circuit: the first new catalysts are discovered with a gate model quantum processor, marking the beginning of the end for traditional chemistry.

2022

3D printers can **print clothing** and modules to snap together a house or building.

People can legally travel in **autonomous cars all over the U.S.**

All kids toys are “smart” with built in machine learning.

Robots are commonplace in most middle-income homes, able to reliably read lips and recognize face, mouth and hand gestures.

Robots understand speech context well enough to interact with humans as receptionists, retail store assistants and clerks.

2024

The **first private human missions** have launched for the surface of **Mars**.

10,000,000 daily drone flights (today, there are about 100,000 daily airline flights).

Drones routinely deliver packages to rooftops of apartment buildings and surface robots deliver those packages from rooftops to doorsteps throughout the buildings.

The first “**one cent per kilowatt-hour**” deals for solar and wind are signed -- one-fifth the price of the cheapest coal or gas deals today.

Building **new solar and wind is cheaper than building new coal** or gas across 90% of the world.

Electric vehicles are half of new vehicle sales.

China and India announce that they will **shut down hundreds of already built coal power plants**.

Carbon emissions have unambiguously peaked worldwide.

Artificial Intelligence augmentation is considered a requirement for most professional jobs.

2026

Car ownership is dead and autonomous cars dominate our roadways.

100,000 **people commute by VTOL** each day in each of L.A., Tokyo, Sao Paulo and London.

Vertical agriculture becomes viable for food production in major megacities.

Atomically precise manufacturing is demonstrated on a macro scale.

8 billion humans are **connected at >500 Mbps speeds**. Tablets in poorest regions of the world are made available for free in exchange for data and ecommerce rights.

VR has become ubiquitous. Parents complain that their kids are constantly off in another universe. Travel starts to decline as VR gets good enough to experience many of the sensations of a place without the hassle of travel.

2028

Building **new solar and wind is cheaper than operating coal and gas** in more than half of the world.

Solar and wind represent nearly 100% of new electricity generation.

Worldwide **oil demand has peaked** and looks likely to decline.

Autonomous, electric vehicles account for half of all miles driven in large city centers.

Robots will have real relationships with people, supporting care of aging, personal hygiene and food preparation. Sex bots become popular.

2030

AI passes the Turing test, meaning it can match (and exceed) human intelligence in every area.

Humanity has achieved “**Longevity Escape Velocity**” for the wealthiest.

Intelligence agencies confirm that stored, secure, internet messages sent between 1990-2029 have been subsequently decrypted by **Cryptologically Useful Quantum Processors** exposing an unprecedented cache of private communications

Carbon emissions are dropping faster each year than the year before. A global plan for **zero carbon emissions by 2050** is signed.

Multiple supergiant **oil companies have gone bankrupt**.

Energy poverty has dropped by more than half from 2017. Universal energy access is within reach.

Instead of becoming our computer overlords, a diverse set of **Artificial Intelligence systems** are providing problem solving partnership and creative solutions in virtually every area of human endeavor.

2032

Medical nanorobots demonstrated in humans are able to extend the immune system.

The majority of human professionals have had some **cortical modifications**, including coprocessors and real-time web communication.

Avatar Robots become popular, allowing everyone the ability to “teleport” their consciousness to remote locations all over the world.

Robots are common in every workplace, eliminating all manual labor and repetitive interactions (e.g., receptionists, tour guides, drivers, pilots, construction workers).

2034

Companies like Kernel have made significant, reliable connections between the **human cortex** and the Cloud.

AI's now enable entirely new classes of science problem solving that absolutely require augmentation to understand.

Many grand challenge problems (e.g. **cancer and poverty**) are solved.

Robots act as maids, butlers, nurses and nannies, and become full companions. They support extended elderly independence at home.

2036

Longevity treatments are routinely available and covered by life insurance policies, extending the average human lifespan 30 – 40 years.

Smart cities are produced at scale globally; they are hyper efficient at utilizing solar energy, producing and distributing food, providing safe and efficient human transport, and have ubiquitous AI augmented services.

2038

Everyday life is now unrecognizable - incredibly good and hyper VR and AI augment all parts of the world and every aspect of daily human life.