## Israel, the cryptocurrency standard for economic innovation

**BOOKS** 

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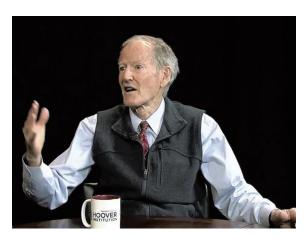


Figure 1 George Gilder Speaking at the Hoover Institute







"The Israel Test: Why the World's Most Besieged State is a Beacon of Freedom and Hope for the World Economy," by George Gilder, Encounter Books, 2012.

One of Franz Kafka's achievements, according to Albert Camus, was to make readers not only want to read his works, but reread them. Something similar can be said about a George Gilder book. Readers may find themselves rereading a paragraph or a whole chapter to grasp its message and depth. Gilder writes about the future, imagined since it is still happening and not yet arrived. Seeing it coming, as sure as the next wave on a beach, is the reader's challenge and reward.

Aside from being a futurist and a prophet of technology, George Gilder is a self-described philo-Semite. The famous Oskar Schindler comes to mind as chief among those Gentiles who feel kinship with Jews and act on their behalf.

Not in numbers close to anti- Semites, philosemitic figures include King Casimir, namesake of the Kazimierz section of Jewish Krakow, who invited Jews to Poland in the 1300s. Jews prospered there, reaching three million strong before the Holocaust.

During the Holocaust, the Righteous among the Nations included Japanese consul Chiune Sugihara, who in 1940 wrote visas to save thousands of Jews in Lithuania. Polish Jan Karski traveled occupied Europe, risking his life many times, to bring Holocaust evidence to President Franklin Delano Roosevelt in 1943, to no avail.

Gilder's book, "The Israel Test," celebrates Jewish life, history and the State of Israel. Although Israel began as a socialist state, he notes, Israel's governance has gone from left to right with the elections of Menachem Begin and more recently, Benjamin Netanyahu. For Gilder, the shift freed the Israeli spirit of innovation to realize its potential for prosperity.

Israel is the fifth most innovative economy in the world, according to Bloomberg. Israeli-designed chips are in 100 million computers across the world. Israeli Waze, owned by Google, helps Americans wend their way through traffic. Israeli antirocket technology will soon protect U.S. tanks.

Gilder uses game theory to frame his discussion; the opposite of zero-sum, where one party wins and one loses, in game theory is win-win, where everyone wins. Gilder believes capitalism is a win-win. The rising tide of a growing economy lifts all boats, small and large.

Opposing capitalism are socialism and Marxism, zero-sum beliefs in diminishing or static wealth, which must be rationed in the name of fairness. Socialism and Marxism depend upon government control and coercion to motivate, whereas capitalism promotes individual freedom and ambition to get the best out of people.

In "Life after Google," Gilder argues dominant companies like Google practice a kind of Marxism, a stasis of technical development, with Google tamping down competing innovations – the stasis – and dispensing to the public the rewards it chooses.

"The Israel Test" gauges which side countries are on. The choice they have to make, Gilder says, is between admiration of Israeli excellence and achievement, and "envy and resentment" of them.

Gilder argues the success of the Jewish state, not history, religion or war, drives Palestinians toward rejection and violence. He reminds us that in "Mein Kampf," Hitler complained that only through cheating and deception could the German Jewish minority succeed amid the Aryan majority. The acid of envy ate into his thinking as well, with tragic results.

Gilder's "Life after Google" praises those in Israel and other countries who carry on the spirit of freedom and innovation. The domination of companies such as Google and Facebook, sometimes called Big Data, is about to end, he suggests. Big Data will be replaced by what Gilder calls "the democracy of peer-to-peer:" thousands of business and personal computers cooperating with each other

through a technology called "blockchain," while spending and saving through cryptocurrencies such as bitcoin.

These advances will overthrow centralized data management and services. Data on a distributed network, cloaked in a technology called "hashing," updated many times in an hour, make hacking difficult, if not impossible. Google will still have its search engine and so will not go broke; but the encroachment of companies such as Google and Facebook into our personal and working lives will decline.

Among the myths Gilder explodes is that the services of Google or the Big Data model are free. Common sense tells us that nothing is. Google makes billions selling personal data to profile us as consumers or voters. Google requires billions just to maintain farms of servers storing information about hundreds of millions of people. The ads that pop-up as we do a search, for example, are revenue for a company worth about \$700 billion.

Recent headlines challenge other myths: the Google, Facebook or Big Data images of neutrality and safety. The dominant search engine apparently plays politics, its algorithms preferring one party or cause to another. Although it promises otherwise, Big Data cannot protect our privacy. Centralizing data, such as credit card information, invites hackers, who seem to be winning battles, if not the war. Blockchain will help stop that.

In past years, Gilder has foretold the impact of the microchip, the rise of the Internet and the advance of the smartphone. He has presented Israel as a model for the 21st century. Over the horizon, in distributed rather than centralized networks, he sees blockchain technology and alternative cryptocurrencies cutting costs, securing business transactions and protecting personal privacy; all powerful incentives for future growth and prosperity.

"Every new mechanism," Gilder says, "frees the human mind for more creative adventures and accomplishments."

An interview with the author

**The Jewish Advocate:** Hierarchical architectures, Big Data, owned by tech giants like Google and Facebook, oppose the democracy of architectures, peer-to-peer. What's to keep the old tech giants with their billions from overwhelming the grassroots rebellion of new tech?

George Gilder: The new crypto companies that I describe in "Life after Google" ultimately offer a remedy for two fundamental problems: the catastrophic breakdown of Internet security, with a record one billion items breached in 2018; and the coming breakdown in the international monetary system, with its overhang of \$250 trillion of debt and its feckless carnival of currency trading. The blockchain can provide both a new security architecture for the Internet and a new financial system for the world economy.

**TJA:** The HAL 9000 computer in "2001: A Space Odyssey," along with endless "Terminator" movies, shows technology as a mortal threat to mankind. Should we be alarmed at developments in artificial intelligence (AI) putting all of us out of work? If the sculptor Rodin created another, "The Thinker," would it be a computer?

**Gilder:** People don't get jobs because they are unproductive. By making people more productive, artificial intelligence will make them more employable, while at the same time generating new capital to fund new work. The new jobs will be safer, more interesting, more productive and more creative.

Rodin was onto something. To map the human connectome – all the links among neurons in the human brain – demands a zettabyte of information, which is roughly the total storage capacity of all the computers on the net. Yet the computers on the net consume gigawatts of energy, while the human brain functions on between 12 and 14 watts. In other words, the human brain is about a billion times more energy efficient and infinitely more adaptable than the computer. The computer is useful to the extent that it serves the one singularity in the universe: the human mind evoked by the Rodin icon and creative in the image of its creator.

**TJA:** Can cryptocurrencies, such as bitcoin and Etherium (ETH), compete and perhaps surpass national currencies and gold itself as containers and measures of wealth? Can this technical advance lead to more economic growth?

Gilder: The cryptocurrency movement is just beginning. It will ultimately create new digital monies that restore reliable values to the global currency system. Crypto will invent new forms of digital gold that also replace cash and double entry accounting with triple entries, allowing unimpeachable timestamped documentation of all your financial behavior. Whether it will be bitcoin, Etherium or some other invention, is still unknowable. But these currencies cannot succeed in the global economy unless they can outperform gold, which captures value by summing up what remains scarce when everything else becomes abundant: time.

**TJA:** The Israeli culture of innovation in "The Israel Test" makes Israel a litmus: how other countries judge Israel indicates their openness to new technology and wealth creation. Is Israel participating, if not leading, in the blockchain revolutions you discuss?

**Gilder:** Israel was the inspiration for the entire flood of inventions and investments that followed [pioneer in cryptocurrencies] Vitalik Buterin's visit with Mastercoin in Israel. Israeli "colored coins" made possible the emergence of the Etherium platform for smart contracts. As Buterin observes, Israel is the world's leading source of innovation in cryptography.

**TJA:** "The Israel Test" concludes that the Peace Now movement will not find peace now or ever until Palestinians exchange hate and envy for acceptance and cooperation. A decade or so later, what are the prospects for peace in 2019?

**Gilder:** The prospects for peace grow better every year, as Israel's lead expands in military technology and economic creativity. Netanyahu is the Winston Churchill of this era: the true leader of the free world.