



## The Open Web and the 4th Industrial Revolution A Brief Overview

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The 4th Industrial Revolution has been characterized by Klaus Schwab, Chairman of the World Economic Forum, as the largest of all industrial revolutions to date, taking place at the intersection of the digital, materials, and biological domains. In what will usher in a new era for humans, the fourth industrial revolution is only just beginning.

“There are three reasons why today’s transformations represent not merely a prolongation of the Third Industrial Revolution but rather the arrival of a Fourth and distinct one: velocity, scope, and systems impact. The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace. Moreover, it is disrupting almost every industry in every country.” ([Klaus Schwab](#))



**Material:** Additive Manufacturing, Robotics, Autonomous Vehicles, Materials Science, Energy Storage, Drone Technology, Carbon Capture, Biosensors.



**Biological:** Synthetic Biology, Nanotechnology, Biotechnology, CRISPR (Prime), Epigenetics, TerraForming Environments, Gene Drive, Precision Health Care.



**Digital:** Artificial Intelligence and Machine Learning, Big Data Analytics, the Internet of Things, Quantum Computing, Blockchain, 5G.

“Digital fabrication technologies, meanwhile, are interacting with the biological world on a daily basis. Engineers, designers, and architects are combining computational design, additive manufacturing, materials engineering, and synthetic biology to pioneer a symbiosis between microorganisms, our bodies, the products we consume, and even the buildings we inhabit.” ([Klaus Schwab](#))

## The Open Web: A Home For Emerging Technologies?

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Within this context the prospect of an Open Web emerges front and center. An open-web, in its most general sense, is an ecosystem of immutable and self-executing code that humans and machines alike will be able to utilize for handling data and value in a fully accessible and decentralized manner.

Open-Blockchain Ecosystems provide the digital backbone for securing, sharing, and storing data from some of the most important technologies of the future: From AI, to IoT, to Drones, to Robotic behaviors. Much speculation about the true impact of blockchain in combination with these technologies has often led to comparisons with

futuristic science fiction realities. Yet in the context of the 4th Industrial Revolution it is clear that an unprecedented paradigm shift is taking place across business, social, personal, and governance sectors. The fundamental question defining this process is rather, what place in this Fourth Industrial Revolution will the Open Web Inhabit? Will the world of cryptocurrencies, decentralized finance, Non-fungible tokens, and smart contracts integrate with other digital, physical and biological domains as suspected? Or will divisions emerge between corporations and governments using legacy or 'private' systems in a multipolar world of multiple currencies, multiple internets, and general fragmentation between users, employees, and authorities? Any future for the Open Web will have to confront the development of other quickly emerging technologies, and the world that those technologies have been created within.

## Topics to Discuss

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The Open Web as a Safe Haven for a New Middle Class: Technological Displacement and New Opportunities.

The Geopolitics of Emerging Technologies and the Global Standing of Crypto.

Black Mirror, the Tokenization of Humans, and the rise of autonomous machines.

A widening Gap? The Open Web for SME's in a Corporate World.

Full Stack Integration: What blockchain, IoT, AI, and Robotics looks like.

New Economic Opportunities from the Integration of the Open Web with other Emerging 4IR Technologies.

Learning Crypto? How The Open Web Differs From Other 4IR Technologies.

# NEAR

NEAR Protocol is a 3rd Generation Blockchain Platform built with scalability and usability in mind. The NEAR Ecosystem is home to a number of cutting edge projects in the crypto space that hold the promise of building the Open Web. Geographically diversified, NEAR features headquarters across 3 continents (USA, San Francisco; China, Shanghai; Switzerland, Zug). The NEAR Community, NEAR Guilds, and the NEAR Team are growing the NEAR Ecosystem to be a home for native crypto, enterprise blockchain, and emerging technology solutions around the world. Learn more about NEAR at [NEAR.org](https://near.org) or join the discussion on [Telegram](#).