21 Technologies That Will Decentralize the World
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Across the planet, new technologies and business models are decentralizing power and placing it in the hands of communities and individuals.

"We are seeing technology-driven networks replacing bureaucratically-driven hierarchies," says VC and futurist Fred Wilson, speaking on what to expect in the next ten years. View the entire 25-minute video below (it’s worth it!) and then check out the 21 innovations below.

Here are 21 innovations that will help make it happen:

1. Open Garden

Decentralized technology will become mainstream in 2014, according to the Open Garden Foundation, a San Francisco-based startup dedicated to net neutrality and internet access for everyone. Open Garden, a product of the Open Garden Foundation, provides mesh networking through an app that creates a wireless mesh network, enabling everyone to have faster downloads, and stronger and cheaper connectivity.

2. Commotion Router

Commotion Router is free, open source software that allows for communities to build their own mesh networks.

3. Twister
Do you really want to trust your data to Twitter? Twister is a peer-to-peer alternative social network operating on a decentralized framework, designed in a way that prevents other users from knowing too much about your whereabouts and online habits.

4. The Edison

The future of devices is micro and wearable. Intel announced this SD-sized computer in January, and bloggers are already talking about the potential for freedom from mobile devices and making dumb gadgets smart.

5. BitCloud

BitCloud is only a concept for now, but it's basically a proposal to replace the entire internet with a decentralized system.

6. The Internet of Things (IoT)

The number of "things" that will be connected to the Internet of things is about to explode, reports Business Insider. The smartification of formerly "dumb" objects like parking meters, home thermostats, appliances, and automobiles is set to rival the number of computers and mobile devices currently connected to the internet, creating trillions in economic value.

7. WunderBar

WunderBar is a starter kit for developers, hackers and makers looking to test out ideas and contribute to the Internet of Things. Created by European startup relayr, the kit will include six modules with sensors for temperature, distance, light, color, humidity, a gyroscope, an accelerometer, a infrared remote control, a Grove connector, and one additional sensor to be determined by a crowdfunding campaign vote.

8. The Wireless Registry
In the Internet of Things, each thing will need an address and a name, just like regular computers and mobile devices. While the regular Internet associates URLs with IP addresses via the DNS system, The Wireless Registry associates Service Set Identifiers (SSIDs) with 32-character names that convey the users identity in the wireless world.

9. Dot-Bit

Based on cryptocurrency software (see next section), Namecoin is an alternative domain name registration system (and potentially an alternative internet) for .bit top-level domain. It operates independently of ICANN, and because it is based on a decentralized network, it is theoretically immune from internet censorship.

10. Bitcoin

Cryptocurrency is a digital medium of exchange not controlled by any one group or agency and secured by cryptography. Bitcoin has been trading since 2009, and in recent years more than 60 currencies have been launched. Here’s a good layman’s guide to cryptocurrencies.

11. Ethereum

Ethereum is a decentralized, cryptographic ledger that allows users to encode transactions, contracts and applications, including custom currencies and financial derivatives. The tool includes its own programming language to create custom transactions.

12. Smart Contracts

What if contracts could enforce themselves, obviating the need for contract law and lawyers? The idea of smart contracts was introduced by Nick Szabo in the 1990s, but recent advancements in cryptography may be moving the idea closer to reality.

13. Smart Property
What if the property behind property and lease contracts ceased to function or be accessible, obviating the need for repo men and lengthy eviction processes? An important subset of smart contracts is smart property, built on self-executing contracts atop cryptocurrency frameworks.

14. Peer to Peer Payments

Services like Square Cash, VenMo and Dwolla are cutting out the bank by creating a platform and framework for online payments between peers.

15. Peer to Peer Lending

Services like Lending Club, Zopa, and Prosper are cutting out institutional lenders and big banks by enabling people to make loans directly to each other. Over $2.4 billion in peer-to-peer loans were issued in 2013.

16. Crowdsourcing Civic Engagement

What if getting your city planner’s attention was as easy as tacking a note to a digital bulletin board? With crowdsourcing platforms like Dear City, citizens can do just that, and others can up-vote or down-vote the concern.

17. Civic Crowdfunding

With public budgets slashed, urban planners and community groups are turning to sites like Citizinvestor, ZenFunder and neighbor.ly to pay for civic projects and infrastructure.

18. Decentralized Urban Farming

Our food system is extremely centralized; Walmart sells 25 percent of all the groceries in
the United States, and that number is far higher in rural areas. Services like BK Farmyards, LandShare, hyperlocavore and Sharing Backyards use social media and Google maps to connect urban landowners with urban farmers. But this is just scratching the surface, an entire alternative agriculture system is emerging that’s based on local production, processing, and distribution.

19. FarmHack

FarmHack is an open-source, online platform for peer-to-peer innovation targeted toward developing tools and systems for resilient, sustainable agriculture.

20. MOOCS and Online Learning Platforms

Technology-based decentralization of education promises to be a game-changing, disruptive force for the future. Massive Online Open Courses (MOOCS) have the potential to be great equalizers, decentralizing education to the extent that college become accessible to everyone, not just those who can afford it, while online learning communities like Duolingo and CodeAcademy have established peer networks to help people learn from each other.

21. Coming Soon: Identity, Trust and Data

When we use Facebook or Twitter to login, we give our data over to Facebook and Twitter in exchange for the convenience of not having to remember a password. Fred Wilson believes we will see a Bitcoin-like protocol for internet identity in the very near future. Stay tuned.