



Welcome to the March 2024 edition of the BRI Newsletter. We hope you find this content useful. You can find the archive of our past newsletters [here](#). As always, if you have any comments, announcements, or recommendations for content in future editions, or would like to contribute content, please let me know: douglas@blockchainresearchinstitute.org



From the Editor's Desk



The Energy Transition

By Doug Heintzman
Chief Catalyst, BRI

Every year we use 580 million trillion joules of energy of which 83%, comes from burning fossil fuels. In doing so, we pump another 37 billion metric tons of CO₂ into the atmosphere which drives climate change.

Increasing awareness of climate change and its consequences, coupled with the certain knowledge that our energy mix is not tenable, has been driving an energy transition. Unfortunately, the war in Ukraine and the instability of global energy supply chains has slowed that transition as concerns about energy security have become more pronounced. Still, we must transition the energy industry as quickly as possible.

This past week I had the opportunity to interview [Vikram Seth](#), Head of Blockchain and Web3 at Shell, for our [W3B Talks podcast](#). Our far-reaching discussion looked at the role that blockchain AI, IoT and other technologies will play in the energy transition.

The most important takeaway, aside from the pragmatic observation that liquified natural gas was going to play a big part in offsetting oil and coal generation in the short term, was that we need to look at the energy system holistically. The future of energy will be much more decentralized. Generation will be distributed on everyone's roof tops, energy storage will be distributed in everyone's basements and driveways, and our appliances and vehicles will be smart enough to alter their demand based on the load on, or the needs of, the grid. This new energy infrastructure needs to be much smarter than the one we currently have. There needs to be a transactional backplane that senses, ledgers, and predicts.

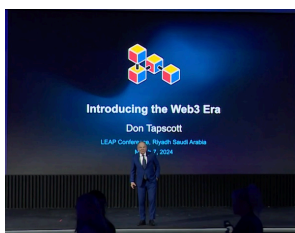
We are seeing the building blocks of the new energy industry take shape. Many of us allow our smart thermostats to be adjusted remotely by utilities to help protect the stability of the electrical grid. Houses are being equipped with heat pumps, solar roofs, network connected appliances, electric vehicles, and battery backup. In some microgrid pilots, electrons flow from where there is a relatively inexpensive excess to where they are needed, and the value creators are compensated appropriately.

Being able to count things, and create marketplaces that supports an efficient price signal, will be essential to not only the next generation transactive energy system, but also to changing behaviors in the present. A great example of this, is the maturing technology enabling the tokenization of carbon. By enabling the tracking, tracing, and trading of carbon we can better incorporate a negative externality into the market. This greater transparency will allow for better quality decision making and incentivize investments in innovation.

The Web3 era will feature bridging the physical and digital worlds, vast amounts of high confidence data, and AI engines that interact with each other to optimize efficiency and predict issues and opportunities. Our collective future depends on innovative builders. We need people working on perovskite solar cells, solid-state batteries, micro modular thorium reactors, next generation HVAC systems, and nuclear fusion. We will need people working on fit-for-purpose ledgers, AI customized models and network connected monitoring technologies. We will also need business model innovators that figure out how to aggregate services into compelling consumables and how we architect a distributed energy marketplace.

We have some very big energy related problems. We need to be pragmatic and address the very real energy security concerns that so many people have. But we also can't afford to obsess over the here and now with little regard to what must come next. As Vikram commented near the end of our interview, "We need to reflect on what we want the world to look like." By doing that, hopefully we start acting in ways that speed the energy transition.

Announcements and News



BRI Executive Chairman Don Tapscott delivered a presentation titled "Introducing the Web3 Era" at the LEAP Conference in Riyadh Saudi Arabia. You can see it [here](#).



Blockchain for Energy (B4E) announced the availability of its new [B4E Carbon](#) solution for measurement, reporting and verification of carbon emissions and removals. It provides an end-to-end Carbon Management System.



Insead Digital has some great resources available including [webinars](#), [articles](#), [research papers](#) (including a recent report on [Regulating NFTs](#)) and [case studies](#).



Hyperledger announced that [Citi and the Brazilian Development Bank \(BNDES\)](#) have joined the [Hyperledger Foundation](#) to work collaboratively on fostering enterprise-grade services and solutions using blockchain technology.



[Hedera announced that BitGo, a digital asset trust and security company, has joined the Hedera Council to support innovation and invest in the future success of the Hedera network.](#)



[Enterprise Ethereum Alliance Announces New Leadership and Vision](#)



The Government Blockchain Association will host its conference [The Future of Money, Governance and the Law](#) May 2-3 in Washington, DC. The BRI's Don Tapscott will be a featured speaker. Tickets can be obtained [here](#).

Featured Research

BRI BIG IDEA WHITE PAPER

Web3 in the Pharmaceutical Industry

How blockchain, artificial intelligence and other digital technologies will transform productivity and innovation in the pharmaceutical industry.

Douglas Heintzman
Blockchain Research Institute

[Learn more](#)

BRI BIG IDEA WHITE PAPER

Which Smart Contract Platform do you need?

This research helps leaders to determine which smart contract platform is right for their blockchain use case.

Massimo Bartoletti
University of Cagliari

[Learn more](#)

BRI BIG IDEA WHITE PAPER

Decentralized Finance Analysis

How to Identify Value Within the Crypto Ecosystem

John Robison, Columbia University
Aryan Sheikhalian, CMT Digital
Alex Tapscott, Ninepoint Partners LP

[Learn more](#)

BRI BIG IDEA WHITE PAPER

Coopetition in Global Commerce

Why it will take a pro-competitive Global Village to scale Blockchain

Dale Crystie
FedEx Corporation

NEW! Now in the Creative Commons.

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Headlines

[The future is 'trivergent.' How these three dominant technologies will change everything](#)

[15 Months After FTX, Trust In Web3 Technology Has Never Been Stronger](#)

[Kickstarter received secret \\$100m investment to become web3 company](#)

[Grass wants to put AI training data on a layer 2 blockchain — and it's using Solana to do it](#)

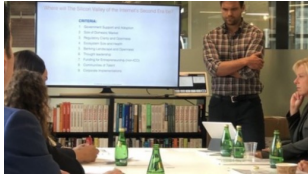
[From Exploration To Execution: What's Next For Blockchain Technology](#)

[Trade finance might not be sexy, but it's blockchain's key to success](#)

[Can AI Replace Human Research Participants? These Scientists See Risks](#)

[Opinion | Will A.I. Take All Our Jobs? This Economist Suggests Maybe Not.](#)

BRI Workshop Program



[Contact us](#) about hosting a BRI workshop or roundtable. We help organizations and associations align stakeholder interests and accelerate high quality decision making. We conduct workshops on a wide variety of technology and industry topics. We provide bespoke context setting pre-reads, deliver a briefing, facilitate the workshop, and produce and output report summarizing key learnings and action plans.

BRI Education

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Join the 255,000 people that have already enrolled in one of our specialization courses credentialed by [INSEAD](#) and [hosted at Coursera](#).



The BRI team is always available to discuss the possibility of customizing our courses to meet the specific needs of your organization, audience, or customers.

[Learn more](#)

Podcasts



W3B Talks

Listen to our latest episodes: [The Energy Transition with Vikram Seth](#) and [How AI is Changing our World with Praveen Narra](#)

You can find "W3B Talks," our podcast series on Web3 and its impact on business and society [here](#).

You can also find it on your favourite podcasting platforms such as [Spotify](#), [Amazon Music](#), [YouTube Music](#), and [Apple Podcast](#).

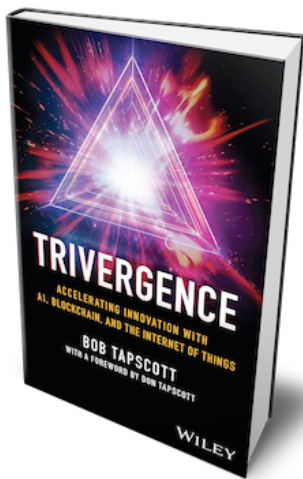


DeFi Decoded

Join Alex Tapscott and Andrew Young as they decode the world of Web3 [with special guest Tim Beiko](#), Protocol Support of the Ethereum Foundation.

You can see other episodes on YouTube [here](#).

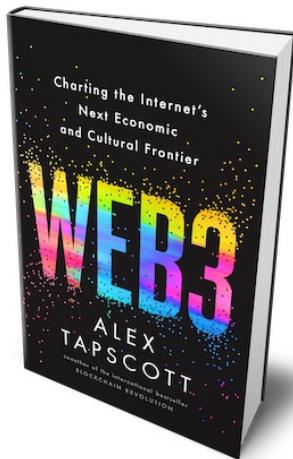
Books



Trivergence: Accelerating Innovation with AI, Blockchain, and the Internet of Things

Bob Tapscott explores the synergies between AI, Blockchain and IoT and the disruptive potential that they will offer, as well as the challenges and risks to making it happens.

Order it today at [Amazon.com](https://www.amazon.com).



Web3: Charting the Internet's Next Economic and Cultural Frontier

Authored by BRI co-founder, Alex Tapscott, this book serves as a cutting-edge guide to the Internet's next era, covering everything from the metaverse and NFTs to decentralized finance and self-sovereign identity.

Order today on [Amazon.com](https://www.amazon.com).

Get the audio version at [Audible.com](https://www.audible.com).

BRI Book Series



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About BRI

BRI is a global think-tank exploring the promise of blockchain technology for business, government, and society. We work with enterprises, governments, and technology start-ups from around the world.

We're always looking for new organizations to collaborate with, through a number of initiatives:

- BRI Member Program
- BRI Global Partnership Program
- BRI Workshops
- BRI Education
- Web3 and Blockchain World Conference

Blockchain Research Institute

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