

# DISTRIBUTED LEDGER TECH APPLICATIONS - HEALTH

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## WELCOME

Mostly blockchain and science this week with two major developments: my 2019 In Progress Review and a call for papers from Frontiers. Pay attention to the science, because the evidence for evidence-based medicine doesn't just grow on trees.

~ Sean Manion, PhD - CEO Science Distributed

## BLOCKCHAIN/DISTRIBUTED LEDGER TECHNOLOGY – NEWS & COMMENTARY

### Science will be Blockchain by 2025: A 2019 In-Progress Review – Sean Manion

Two years ago, I wrote "[Science will be Blockchain by 2025](#)." Here is where we stand in 2019:

#### **Scientific Publishing: Ahead of schedule.**

1. [Ledger](#) - The first journal focused on blockchain and to apply the tech to publishing.
2. [Blockchain in Healthcare Today](#) - The first journal focused on blockchain applications in health.
3. [Journal of the British Blockchain Association](#) - First journal aligned with a professional society.
4. [Frontiers in Blockchain](#) – Recent special issue, "[Blockchain for Distributed Research](#)."
5. [Digital Science/Nature Publishing](#) - Applying blockchain technology to the publishing process.

#### **Professional Societies/Non-profits: Ahead of schedule**

1. [HIMSS Blockchain Task Force](#) – Symposium at HIMSS2019. [Blockchain in Healthcare book](#).
2. [IEEE Blockchain for Clinical Trials](#) - Two conferences on Blockchain for Clinical Trials.
3. [IEEE Standards Association](#) - Standard for Blockchain use in Health and the Life Sciences.
4. [Blockchain in Healthcare Global - IEEE ISTO](#) - Trade association on health and research.
5. [Blockchain for Science](#) - Non-profit framework for blockchain for science.

#### **Universities: On track**

1. [Georgetown University](#) - Hosted the first Blockchain for Health Science Research Symposium.
2. [American University](#) - Blockchain Hub provides framework for moving blockchain forward
3. [Columbia University](#) - Partnered with IBM to develop a blockchain center and accelerator.
4. [Mount Sinai](#) - Announced the opening of a Blockchain for Biomedical Research Center.
5. [University of Illinois Chicago](#) - UIC delivered [the best blockchain and health forum of 2018](#).

#### **U.S. Government: Well ahead of schedule**

1. [Health and Human Services](#) – [White paper contest](#) and [first operational federal blockchain](#).
2. [National Science Foundation](#) - Early source of grant funding for blockchain innovation.
3. [Department of Defense](#) - Early funding for blockchain/research. DARPA blockchain workshop.
4. [Veterans Affairs](#) - Conducting market research on blockchain value for healthcare and research.
5. [National Institute of Standards & Technology](#) - Report on use and standards development.

#### **Industry: Playing catch up**

1. [Wolfram Alpha](#) - Exploring framework that can be used for scientific research.
2. [IBM](#) - Applied for a patent for blockchain in science publishing.
3. [Pharma](#) - Lots of interest, but the work has been mostly behind closed doors and heavily siloed.
4. [Early R&D](#) - Dozens of early stage companies are looking at blockchain and science.
5. [Science Distributed](#) - [Strategic planning](#) for Science being Blockchain by 2025.

<https://www.linkedin.com/pulse/science-blockchained-2025-2019-in-progress-review-sean-manion>

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**“The best way to predict the future is to create it.”**

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**Commentary:** On track. Only picking up speed from here. Get on board or get left behind. More at the link.

## **Blockchain for Distributed Research: Special issue from Frontiers in Blockchain – Call for Papers**

*Blockchain is not one size fits all, it will take scientists who know the pain points, data, and workflow to design solutions across each discipline. That's where you come in. Astronomy to Genetics, Neuroscience to Public Health, experts are needed to determine how it may help. We are looking for manuscripts on empirical experience as well as theoretical applications to any field of science. How blockchain can be applied, the good it will do for advancing knowledge, and the value it can bring. Focus on challenges in each field is encouraged: lack of data standards, complexity of workflows, and other hurdles.*

<https://www.frontiersin.org/research-topics/9698/blockchain-for-distributed-research>

**Commentary:** I am a guest editor for this special topic. Please get in touch if you are interested or need more info.

## **BLOCKCHAIN/DISTRIBUTED LEDGER TECHNOLOGY - ADDITIONAL RESOURCES**

### **Blockchain in Healthcare Global Webinar Series: SimplyVital Health meet the Health Nexus Community**

*This event features leaders from SimplyVital Health and esteemed guests who are members of their blockchain healthcare delivery community, Health Nexus - What are their roles in healthcare? Why blockchain? How they are currently using, plan to use, or see the benefit of blockchain tech? (Recorded 11 Jan 2019).*

**Commentary:** This webinar discussion has great relevance to an article from few weeks back, **Healthcare Blockchain Projects Need to Factor in HIPAA Compliance**. SimplyVital Health has factored this compliance into their platform. Health Nexus is HIPAA compatible -- public-permissioned, open source - all nodes are validated. Which means they know who runs the nodes and all node runners must have a HIPAA compliant server.

**Blockchain in Healthcare: Innovations that Empower Patients, Connect Professionals and Improve Care (1<sup>st</sup> Edition, CRC Press, Productivity Press, HIMSS Book Series)**

## **BLOCKCHAIN/DISTRIBUTED LEDGER TECHNOLOGY - EVENTS**

### **Azure Cloud Foundations Workshop for Healthcare and Life Sciences, Microsoft Building, NYC, 31 Jan**

*This Azure Cloud workshop is tailored to the specific needs of hospitals, pharmaceuticals, and related organizations in healthcare. Special guest speaker, [Sean T Manion, PhD, CEO, Science Distributed](#), will give a non-technical executive introductory overview of blockchain/distributed ledger technology and how it is applied to healthcare related use.*

<https://www.eventbrite.com/e/azure-cloud-foundations-workshop-for-healthcare-and-life-sciences-registration-53860042838>

### **IEEE Standards Association P2418.6 Standards Development Working Group (Blockchain in Healthcare and Life Sciences), Friday, 01 Feb, 11AM-12PM EST; open meeting**

At this upcoming meeting, we are organizing and formalizing subgroups who will advance various aspects and dimensions of the standard; we hope you can make it. It's an open activity with an individual ballot -- we'd love to have you join the working group. To attend the next meeting, one-time registration is here: <https://lnkd.in/gYcqSf9>. If you've already registered, no action is needed. To learn more about the working group, check out <https://lnkd.in/emPsgEd>.

### **HIMSS Blockchain Symposium: Chain Reaction: How Blockchain Technology Brings Value to Healthcare 11 February 2019 | 8am - 4:30pm EST; requires additional registration/fee from HIMSS Conference**

*As blockchain continues to enable the exploration of innovative healthcare approaches not previously feasible, its adoption is growing. Gain an overview of blockchain fundamentals and explore real-world experiences of early adopters transforming ideas to practice. This highly interactive event will provide you the opportunity to validate your blockchain hypotheses and give you a clear sense of how to participate in blockchain ecosystems.*

<https://www.himssconference.org/education/blockchain-symposium>

### **HIMSS Blockchain Forum: Unlocking Data; Privacy, Security, Compliance & Regulation; Provider Data 13 February 2019 | 8am - 12:30pm EST; included with HIMSS Conference registration**

*The Blockchain Forum will address the following questions: What is real in blockchain? Is it secure, private, and compliant with regulations? What is appropriate and not appropriate for blockchain?*

<https://www.himssconference.org/education/blockchain-forum>

### **Blockchain in Healthcare Global Meetup by Chainhaus, Rise New York (Manhattan), 26 Feb, 6-9pm**

*Chainhaus along with Blockchain in Healthcare Global IEEE/ISTO (BiHG), Science Distributed (SD), and futuRXism bring you a free meetup for blockchain in healthcare in NYC. Hosted by Jamiel Sheikh (Chainhaus) we'll cover the State of BC/HC (Sean Manion; SD, BiHG), Barriers to Implementation (Brandi Reddick; futuRXism, SD), and Nicole Tay (BiHG, SD), plus a Q/A panel with the speakers and Dr. Yauheni Solad. FREE.*

<https://www.eventbrite.com/e/global-blockchain-healthcare-tickets-54458706457>