Blockchain technology in life sciences will enable more efficient and accurate health care delivery

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Life Sciences and Health Care Videos

Blockchain—the tamper-proof electronic ledger network technology—first made headlines with the rise of cryptocurrencies like Bitcoin. Independent of that boom-and-bust cycle, the life sciences industry is now exploring ways to tap into the potential of blockchain's underlying technology.

Blockchain adoption has the potential to create a more broadly integrated ecosystem, which would allow players across disparate areas of the health care industry to synchronize vast quantities of data, and in the process improve the bottom line for pharmaceutical development, create more reliable record keeping, and optimize health care delivery.

But widespread adoption of the technology will depend on the willingness of both regulators and market players to navigate issues around standardized data practices, and to accept radical new levels of transparency. Ted Mlynar, partner at Hogan Lovells in the firm's Intellectual Property practice group, discusses some of the opportunities and unique challenges of blockchain — and how it may fundamentally change the way the entire industry does business.

Q: How might blockchain revolutionize the life sciences industry?

"Market forces are driving companies together to provide more efficient health care and more cost-effective pharmaceutical development activities. The central issue is data (sharing). The health care industry is filled with unrelated parties, whether they be government regulators, market participants, drug developers, doctors or hospitals."

"The promise of blockchain is that it will unify information from these groups in one place, so (that) regulators and industry participants, researchers and developers can all use the same set of health care records and clinical trial data as a means of reducing costs, improving data flow, and increasing the efficiency for every medical dollar that's spent."

Q: What are some legal hurdles that might slow the widespread adoption of blockchain?

"Cybersecurity and data privacy are major legal concerns for the industry right now. When it comes to applying blockchain in life sciences, there's a great deal of regulatory burden

associated with providing and collecting data."

"HIPAA governs how industry players are able to store and protect data and current regulation provides some significant hurdles to keeping [data] secure and allowing different parties to have access to it. FDA and the life sciences industry are going to have an interesting dance when it comes to applying blockchain. We're helping our clients understand how those regulations are continuing to change."

Q: How might blockchain change the face of competition within the life sciences?

"In the short term, one of the challenges of having all of these different market participants working together on a blockchain are issues of intellectual property, data privacy, and trade secrets. How do companies that haven't worked together in the past suddenly come together to develop useful and practical solutions for sharing data?"

"Consortia are being developed right now where companies can begin sharing information across systems in different parts of the supply chain and pooling resources to uncover new use cases. In order for blockchain to work long term, participants will need to develop common data standards that can be applied broadly."

Q: How will patients ultimately benefit from the use of blockchain?

"Blockchain will be behind the scenes in nearly every part of the health care industry. But at the end of the day, the use of blockchain should be about helping patients by providing them with better care, meaning less data entry and better record keeping."

"On the patient-facing side the idea is to make data more reliable so doctors and providers instantly know a patient's conditions and medical history. We've finally reached a point where technology can provide a health care experience that's seamless and truly customized to the patient, no matter where they're receiving care."

For additional insights from Ted Mlynar on blockchain, watch the video above.

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