Yves Bennaïm
Geekko / 2B4CH

Blockchain & DLT in MedTech

A MedTech Europe event

The MedTech Forum

bringing HealthTech stakeholders together

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

Blockchain

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

Characteristics

- “New” (under development) technology
- Continuously growing, shared ledger
- Distributed: no central authority, peer-to-peer transactions
- Consensus algorithm removes need of preexisting trust between parties
- Each block contains cryptographic references to all previous blocks
- Immutable: block cannot be altered retroactively

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

“Hackproof”

- Hardware + Software + System
- Crime prevention, detection, auditability
- Diversity of cyber threats

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

Global Initiatives Acknowledged Future

- ISO/TC 307 - Blockchain and distributed ledger technologies
- European Blockchain for Healthcare conference, German Federal Ministry of Health, May 2017
- Philips Healthcare lab specifically aimed at blockchain research
- IBM / FDA collaboration for secure, efficient, scalable exchange of data
- Insurance Industry Initiative B3i

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

Benefits

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

Use Case

Connected medical device with embedded software:

- Identity management (error prevention…)
- Tracking / Supply chain
- Encryption and permanent storage of data
- Privacy by secure access to data

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

Healthcare Trends

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

User-Centric

- "Consumers who are better informed about health make better decisions."
- "FDA must encourage the development of tools that can help people be more informed about their health."
- "We must always lean in the direction of enhancing access to more information."

Statement from FDA Commissioner on advancing new digital health policies to encourage innovation, bring efficiency and modernization to regulation

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.

A Future To Explore

- Strengthen to fit Medical Devices industry
- Growing number of connected health devices / Internet of Things
- "Precision Treatment" through personalised health data
- Electronic Medical Record: support the entire lifecycle of a patient
- Longitudinal Health Record: clinical summary, labs, treatments
- Contradicting effects of multiple medications research
- Recommendations can be made based on real-time data

2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.
2018 © The MedTech Forum. All rights reserved - Reproduction in whole or in part is prohibited.