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HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

Agenda

1. Introduction
   a. General introduction and welcome
   b. Antitrust
   c. Code of conduct
2. Hyperledger Community Information
3. Update of blockchain in the mortgage industry
4. Not one blockchain to rule them all
   a. Hyperledger videos
   b. Blockchains used in the mortgage industry
   c. Advantages of Interoperability
   d. How to achieve interoperability
   e. Risks associated with interoperability
5. Q & A
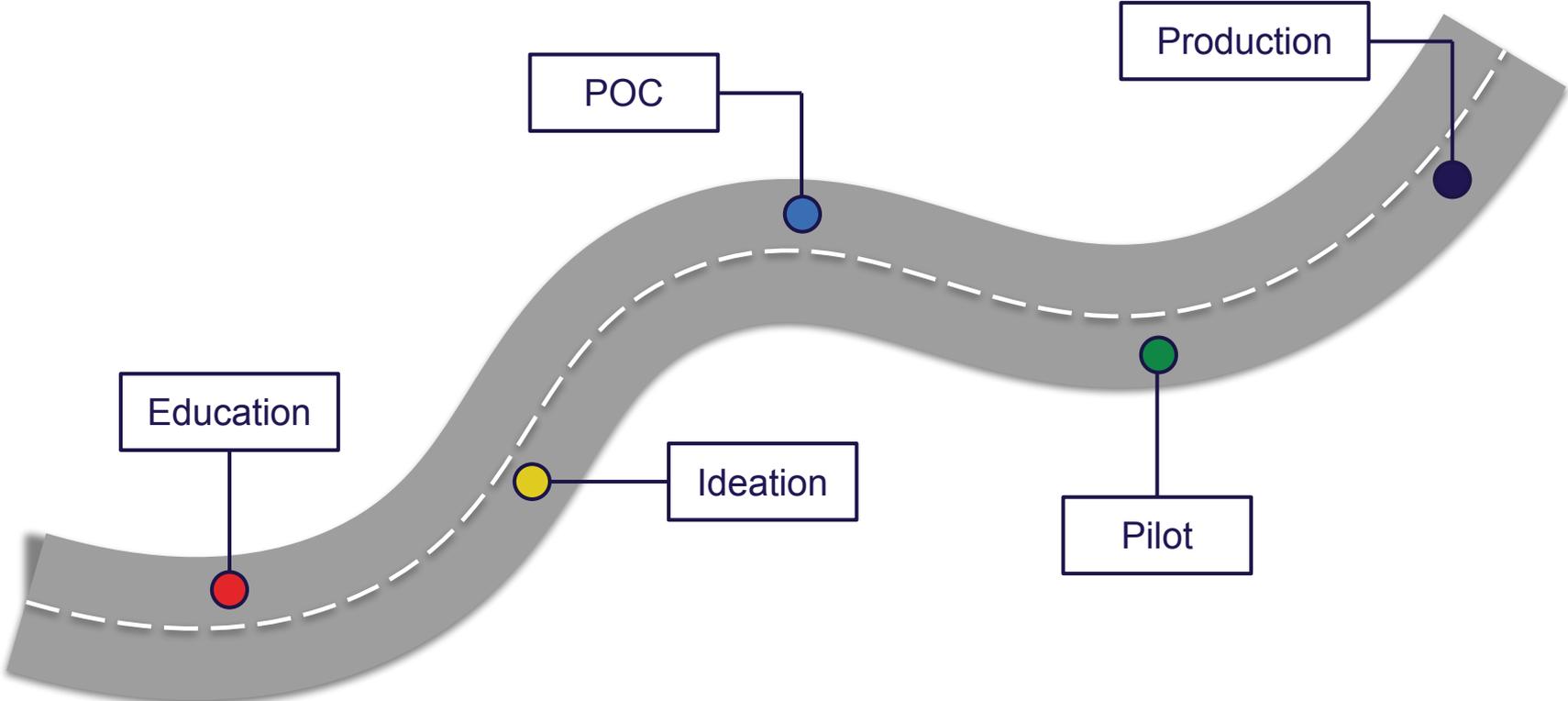
HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

The Blockchain Journey

HYPERLEDGER
Financial Markets
SPECIAL INTEREST GROUP

Hyperledger Foundation

has rebranded

Hyperledger
FOUNDATION

Sitemap

Focus	Link
Helping open technology projects build world class open source software, communities and companies.	https://www.linuxfoundation.org
Building enterprise blockchain ecosystems through global, open source collaboration	https://www.hyperledger.org
Central knowledge base for Hyperledger's projects, labs, Working Groups, Special Interest Groups and other community activities	https://wiki.hyperledger.org/
Central knowledge base the Capital Markets Special Interest Group (CMSIG).	https://wiki.hyperledger.org/display/CMSIG/
Central knowledge base the Mortgage Industry Subgroup.	https://wiki.hyperledger.org/display/CMSIG/FMSIG+Mortgage+Industry+Subgroup
Hyperledger GitHub is for software version control and collaboration.	https://github.com/hyperledger

How to create an LFID

Why do I need an LFID?

This allows you to:

- Browse through the mailing list history on groups.io: **https://lists.hyperledger.org/groups**
- View, edit and add content to the Hyperledger Wiki
- Save them for both sites and you'll only login once!
- Use **chat.hyperledger.org**

Step-by-step guide

1. Visit https://identity.linuxfoundation.org/
2. Select "I need to create a Linux Foundation ID"
3. Choose a username, add an email and password. _Do not use any of the social login links_.
4. Input your first and last name
5. Click "create new account"
6. Check your email and validate the account
7. Save your username and password so you don't have to login again! Your username = your LFID. Remember that your email address is not the same as your username.

Watch quick 1.5 min video (click **here**)

HYPERLEDGER FOUNDATION

Blockchain Training ^{FREE}
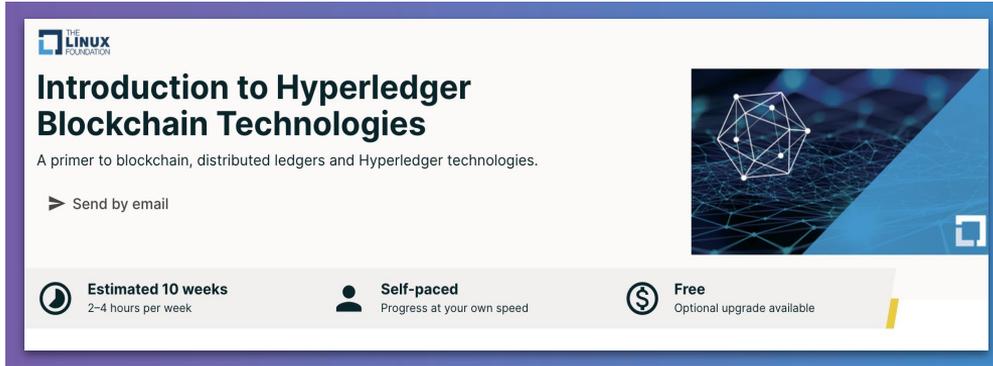
Introduction to Hyperledger Blockchain Technologies

A primer to blockchain, distributed ledgers and Hyperledger technologies.
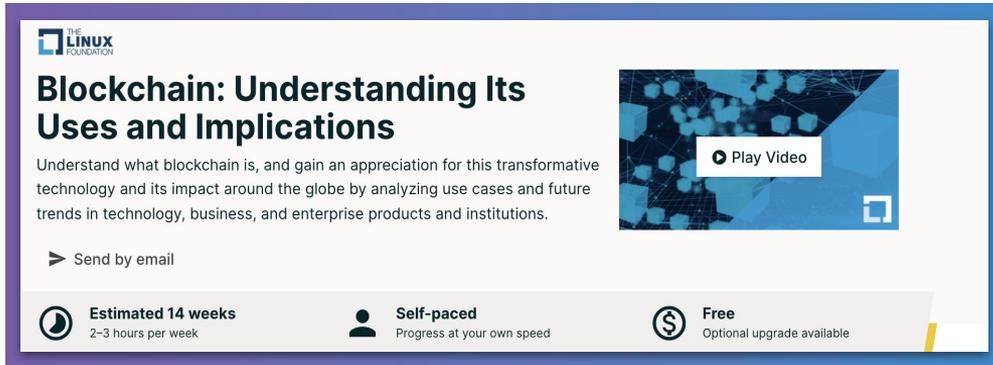
➤ Send by email

Estimated 10 weeks
2–4 hours per week

Self-paced
Progress at your own speed

Free
Optional upgrade available

Blockchain: Understanding Its Uses and Implications

Understand what blockchain is, and gain an appreciation for this transformative technology and its impact around the globe by analyzing use cases and future trends in technology, business, and enterprise products and institutions.

➤ Send by email

▶ Play Video

Estimated 14 weeks
2–3 hours per week

Self-paced
Progress at your own speed

Free
Optional upgrade available

Blockchain for Business – An Introduction to Hyperledger Technologies – *Enroll for Free*

A primer to blockchain and distributed ledger technologies. Learn how to start building blockchain applications with Hyperledger frameworks.

Blockchain: Understanding Its Uses and Implications – *Enroll for Free*

Understand exactly what a blockchain is, its impact and potential for change around the world, and analyze use cases in technology, business, and enterprise products and institutions

Status of Blockchain in the Mortgage Industry

August 2023

Mortgage Industry Blockchain Activity

Ripple XRP Ledger (XRPL) Makes History with Introduction of First Mortgage-Backed Stablecoin - Crypto News Flash

Ripple's XRP Ledger (XRPL) has welcomed an innovative stablecoin backed by mortgages. Developed by the RWA protocol, this groundbreaking innovation will revolutionize the mortgage industry by unlocking new products for homeowners and other market participants. Using the utility token $HOME offered on the XRPL, the community can benefit from the stability and growth potential of mortgages which offer a steady stream of reliable income.
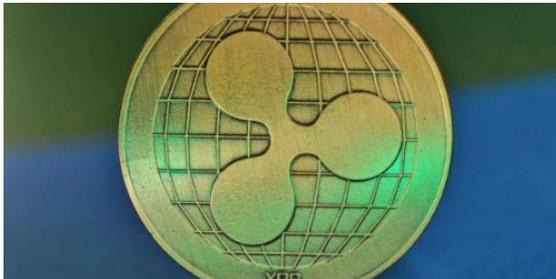
Why are smart contracts smart?
Getting a Home Loan Using a Smart Contract - Louwrens

"In this blog, we'll explore the similarities and differences between taking out a home loan using a smart contract vs a traditional contract. We'll evaluate these two types of contracts by comparing four aspects: the parties involved, the validity of the contract, the terms and consequences, as well as their enforcement in court. By the end, you'll be able to decide whether using a smart contract for your next home loan is a good idea."

Mortgage Industry Blockchain & AI Activity
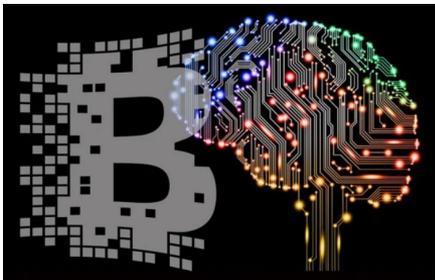
AI needs Blockchain…This is where intelligence meets Truth. - LI, by Kamlesh Nagware

"The pace of development of artificial intelligence has been breathtaking, but with those strides in generative AI arise a myriad of problems experts say might only get worse as the technology becomes more sophisticated. Two disruptive technologies, blockchain and artificial intelligence, are gaining traction and will impact the trajectory of people's lives and society over the next ten years."

Artificial intelligence glossary: 60+ terms to know - TechTarget

Throughout its history, AI has gone through hot and cold periods of hype. In the periods of hype -- now with the explosion of large language models -- new terms always make their way into public parlance.

This glossary aims to serve both as a resource for those just being introduced to AI and for those looking for a reference or to refresh their vocabulary.

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Hyperledger

Spaces | People | Projects | Groups | Labs | Events | Community | **Create** | ...

Search

Pages / Financial Markets SIG / Subgroup(s)

FMSIG Mortgage Industry Subgroup

Created by Karen Ottoni, last modified by James Hendrick less than a minute ago

Edit | Saved for later | Watching | Share

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BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

PAGE TREE
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    - ˅ Mortgage Subgroup Meeting
      - 2021-08-11 Meeting Note
      - 2021-11-18 Meeting notes
      - 2022-01-13 Meeting notes
      - 2022-02-10 Meeting notes
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      - 2022-11-10 Meeting notes
      - 2023-01-12 Meeting notes
      - 2023-02-09 Meeting notes
      - 2023-03-09 Meeting notes
      - 2023-04-13 Meeting notes
      - 2023-05-11 Meeting notes
      - 2023-06-08 Meeting notes
      - 2023-07-13 Meeting notes
      - 2023-08-10 Meeting notes
      - 2023-09-14 Meeting notes

Welcome to the Mortgage Industry Subgroup

Purpose
To foster sustainable, inclusive communities through efficient, fair, and quality mortgage lending around the globe.

Vision
To securely close home loans as efficiently as an auto loan while delivering a superior digital customer experience.

Mission
To educate mortgage lenders, vendor partners, investors, real estate records custodians, and government agencies around the globe of production-ready blockchain technologies that support the global housing mission of creating sustainable, inclusive communities through efficient, fair, and quality mortgage lending.

Introduction
The Mortgage Industry Subgroup (MIS) is a global community who will focus on technical and business-level challenges within the Mortgage Industry and on developing applicable use cases for blockchain technology. The Subgroup will bring together business, technical, academic, and industry-related expertise to work together on blockchain education, use case identification, POCs and production implementations.

At the heart of financial services is trust and, as an industry, we rely on our technology to record the truth of each transaction. The life cycle of a mortgage has a complex framework, involving many entities, for example originators, servicers, investors, regulators, and a vast ecosystem of vendors and service providers. This complexity creates trust issues and transparency challenges with no clear mechanism to track end-to-end activities of every entity. Each party must maintain their own independent database of customer information, loan transactions, and third party information. Data must be validated, re-validated and financial transactions need to be reconciled with third parties. Blockchain can address many issues in the lifecycle of a mortgage with its decentralized and distributed ledger technology, with trustless operability, that is immutable and auditable.

Objectives
- Promote blockchain education for the mortgage industry participants across business, technical to government agencies and vendor/service partners
- Identify specific opportunities where the application of blockchain technologies can meaningfully advance the state of the mortgage industry
- Provide a foundation for real-world use case identification, blockchain technology alignment, and operational validation of technology fit for purpose
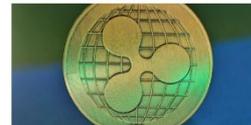
Resources

New to Hyperledger? You'll need a Linux Foundation ID (LFID) to edit our wiki pages and chat on Hyperledger channels. Here's how to get your LFID

Mortgage Industry Subgroup: Join the mailing list.

Global Mortgage Industry Research

Ripple XRP Ledger (XRPL) Makes History with Introduction of First Mortgage-Backed Stablecoin

by Crypto News Flash

Why are smart contracts smart? - Getting a Home Loan Using a Smart Contract

by Louwrens

AI needs Blockchain...This is where intelligence meets Truth.

by Kamlesh Nagware

https://wiki.hyperledger.org/display/CMSIG/FMSIG+Mortgage+Industry+Subgroup

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HYPERLEDGER
Financial Markets
SPECIAL INTEREST GROUP
Mortgage Industry Subgroup

"Not one blockchain to rule them all."

Hyperledger Videos

https://www.youtube.com/watch?v=PENFJWG-C7w

https://www.youtube.com/watch?v=PMohgbJ8G2M

Blockchains in Mortgage Industry

1. Provenance
   a. Figure
   b. Redwood Trust
   c. Sagent

2. Ethereum
   a. Aave
   b. Compound
   c. MakerDAO
   d. dYdX
   e. Fulcrum

5. Hyperledger Fabric
   a. IntainNFT

6. Unknown
   a. SunWest Mortgage
   b. Raineri Solutions
   c. Hamsa
   d. Inveniam

Other blockchains
   a. Bitcoin
   b. Corda
   c. Quorum

HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

Advantages of interoperability

1. Share data across multiple blockchains

2. Allows for decentralized applications (DApps) that can access multiple blockchains simultaneously

3. Interoperable applications and smart contracts

4. Increased transaction throughput

5. Interoperability, cross-chain technology allowing for atomic swaps

6. Independent blockchains, known as Smart Chains, which seamlessly interact with other chains in the ecosystem

HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

How to achieve interoperability

1. **Sidechains** - separate blockchains that are linked to the main chain, allowing for the transfer of assets between the two

2. **Notary schemes** - a third-party notary to manage the lack of trust between the two parties to the transaction

3. **Oracles** - bridge the informational gap between on-chain and off-chain settings

4. **Blockchain routers** - protocols or systems that facilitate direct communication between different blockchain networks.

   They act as a 'router' by routing transactions or information from one blockchain to another

5. **Industrial solutions** - cross-chain interoperability protocols like Polkadot and Cosmos. Polkadot, for instance, allows

   different blockchains to interoperate while maintaining their own unique characteristics and governance models

6. **Hashed timelocks** - used to build smart contracts with the ability to modify payment channels

HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

Risks associated with interoperability

1. Every blockchain ledger has a different trust model, and transferring information from a less reliable ledger to one that is more reliable can leave the more robust blockchain open to manipulation

2. Ronin network security breach in 2022
   a. Ronin was a sidechain developed for the popular game Axie Infinity
   b. Hackers exploited a vulnerability in the network's bridge contract
   c. loss of approximately $625 million in assets

3. When different blockchains interact, the security of the entire system is only as strong as its weakest link

HYPERLEDGER
BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

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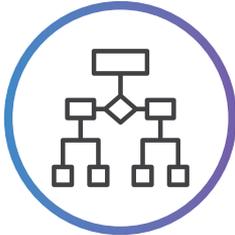
Q & A

Future Agenda Topics
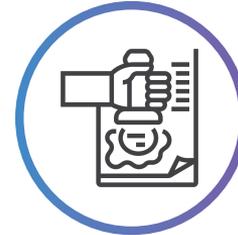
Business Case

Demos

Technical
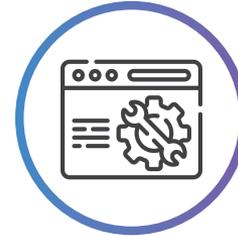
Use Case

Knowledge Share

Regulators

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Thank You

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