

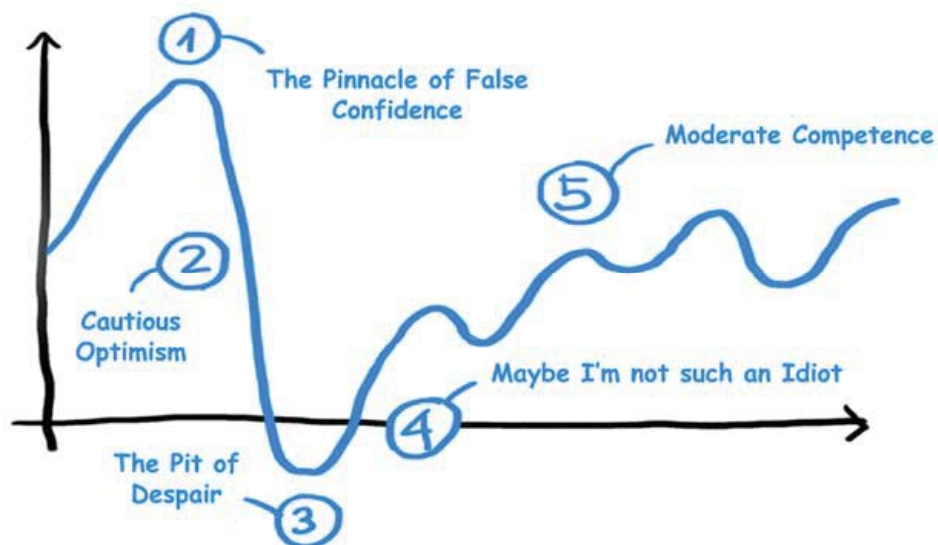
# Blockchain 101

*A primer on blockchain and distributed ledger technology  
and its application in the energy industry*

Jesse S. Lotay  
Jackson Walker LLP  
September 20<sup>th</sup>, 2018  
Houston, TX



## Blockchain 101 | The Learning Curve



\* Source: Luke J. Gilman, Jackson Walker LLP.



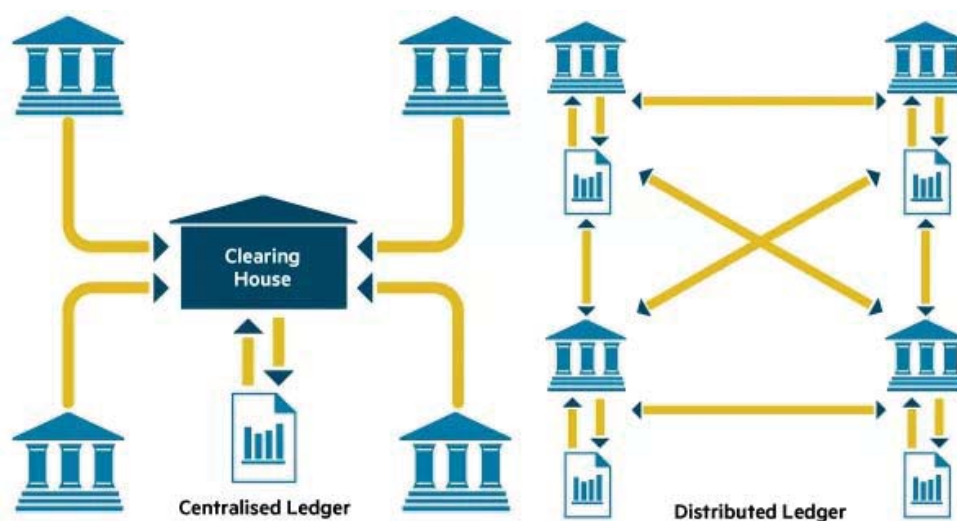
# Blockchain 101 | Fundamentals

- Single ledger of information
- Distributed and locally stored
- No single party controls the information
- Visible by all participants in the network
- Permanent and irreversible
- Secure and tamperproof
- No need for intermediaries

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# Blockchain 101 | Centralized vs. Distributed

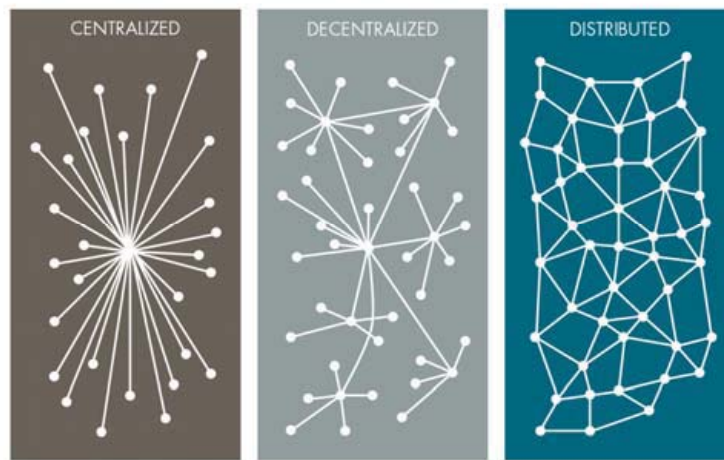


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# Blockchain 101 | Centralized vs. Decentralized vs. Distributed

## TYPES OF NETWORKS



Reproduction of an original figure in "On Distributed Communication Networks" by Paul Baran



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## Blockchain 101 | How it Works

- Parties agree to a transaction
- It is distributed to the nodes on the network
- Nodes validate the transaction and the parties' status
- Transaction is combined with other transactions to form a block
- Blocks are chained together in chronological order – hence, *blockchain*

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First appeared as part of the conference materials for the  
17<sup>th</sup> Annual Gas and Power Institute session

"Blockchain 101"