



TECNOLOGIA BLOCKCHAIN

.....e suas aplicações



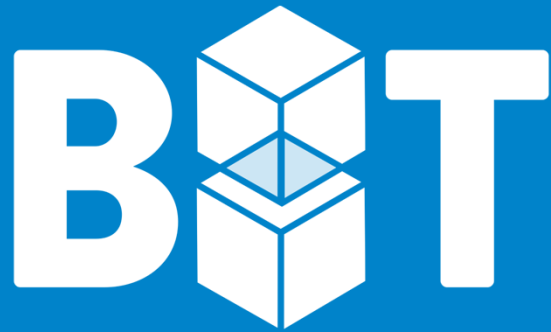
- **Experiência Profissional:**
 - **Consultor e Formador, em Gestão: 1991 –**
 - **BIT Country Lead Portugal & PSAC: 2022 -**
 - Empresário, empresa tecnológica: 1985 – 1991
 - Quadro Superior e Gerente: 1980-1985
 - ***Docente U. Lusófona: 2023 -***
 - *Docente U. Lisboa, ISCSP, 2014 – 2019*
 - *Docente Formação Executivos, UCP – 1995 – 2007*



Formação

- Lic. Gestão, UCP – 1976-81
- MBA - Marketing, UCP - 1992-94
- GUS, UCP – 2002
- Doutorado em Gestão, ISCTE – 2007–12

- ***Formação em Blockchain e IA:***
 - [Certified Blockchain Professional](#)
 - [Certified Senior Blockchain Professional](#)
 - ChatGPT Complete Guide: Learn Midjourney, ChatGPT 4 & More
 - ChatGPT Head Start



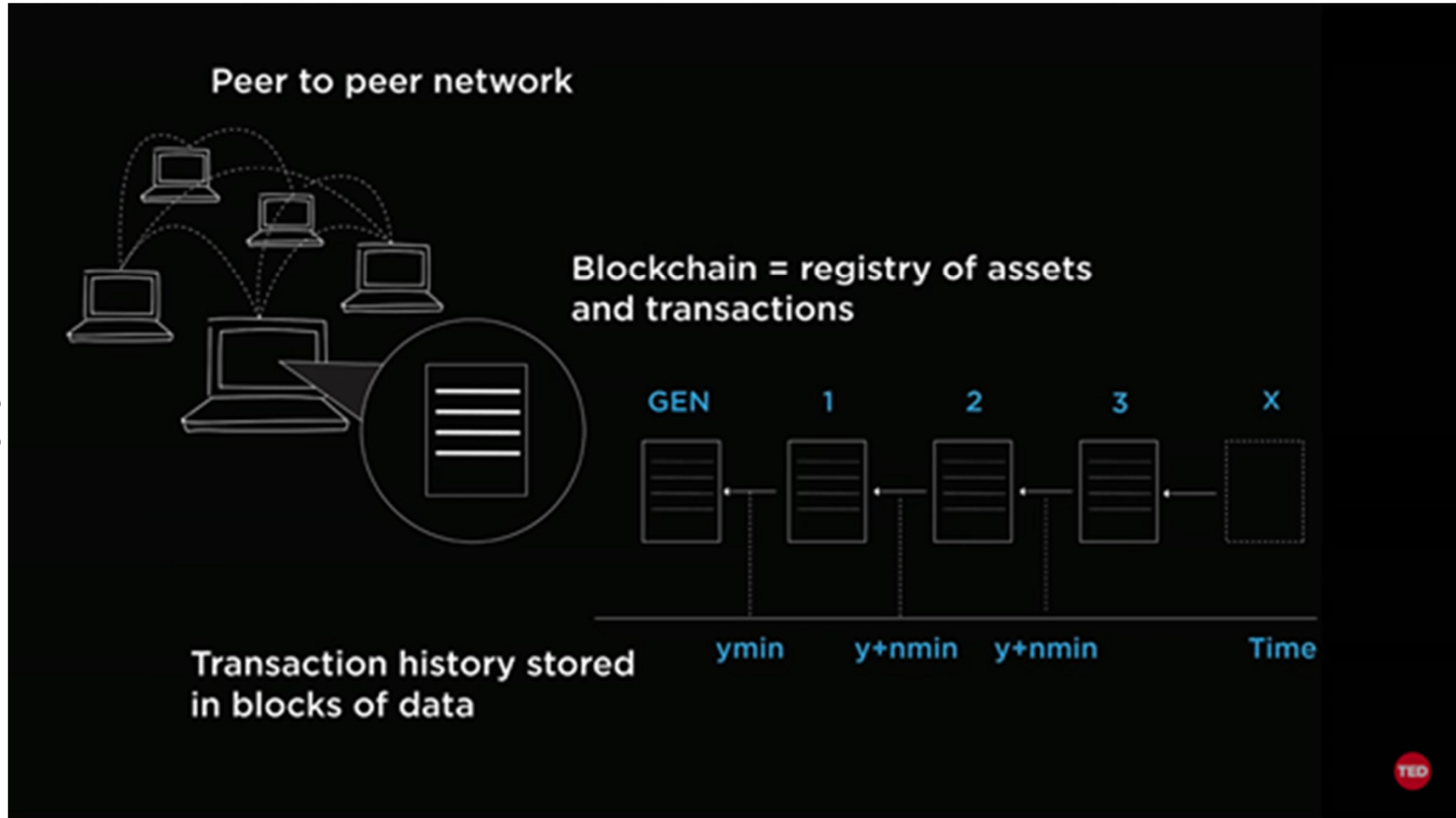
BLOCKCHAIN
INSTITUTE OF
TECHNOLOGY

The World Standard in
Blockchain Education
and Certification



Blockchain

Fonte: Bettina Wargurg, TEDx Toronto 2016





Início de 2009 – primeiro blockchain: **Bitcoin**

White paper: “**Bitcoin: A Peer-to-Peer Electronic Cash System**”, Satoshi Nakamoto, (Craig Wright?)

Abstract: “A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution”.

- A blockchain é um sistema criptográfico distribuído e tem como vantagem não depender de nenhuma entidade em particular, garantindo, no entanto, a execução e a auto-execução das transacções para todos os membros do ecossistema”.
 - Paulo Cardoso do Amaral, Professor da Católica-Lisbon, 20 Agosto 2021, O Jornal Económico

1ª transação em 2009: uma pizza por 10.000 BTC (valor atual, 300 milhões USD, *1BTC=30k USD*)



Blockchain - 4 componentes

- Rede *peer-to-peer* (PCs ligados)
- Criptografia (ligação blocos, assinaturas digitais)
- Algoritmos de consenso (validação transações: proof-of-work, proof of stake...)
- Incentivos (coin)
 - **Adopção pelo mercado** (nº de utilizadores)

Fonte: Dan Martin, 99Bitcoins



Blockchain - aplicações

- **Criptomoedas:** BTC, ETH, Tether, BNB, XRP, USD Coin, PYUSD
- **Plataformas (Dapps, smart contracts):** Ethereum, Neo, Icon, Solana, Cardano, Polkadot.
- **Utility tokens (app coins):** Augur (betting platform, <https://augur.net/>), Golem network (computer resources, <https://www.golem.network/>)
- **Natural asset tokens and commodity tokens - redução de emissões:** CarbonX (<https://www.carbonx.ca/>), Veridium (<https://veridiumid.com/veridium-id-authentication-platform/>)



- **NFTs ou Crypto collectibles**, : CryptoKitty, BlockBar

(<https://blockbar.com/>) Glenfiddich

NFT (Non Fungible Token) = certificado digital de autenticidade

- **Crypto Fiat, Central Bank Digital Currency**: Chinese Digital Yuan; Digital Euro
- **Supply chain control**: Walmart, Bumble Bee
- **Metaverse : Decentraland** (<https://decentraland.org/>); **The Sandbox**



Blockchain, Criptomoedas e NFTs



Blockchain and Bitcoin Fundamentals

46 Lessons | \$195.00

Cryptocurrency Fundamentals

26 Lessons | \$95.00

Cryptocurrency for Your Business

17 Lessons | \$150.00

Bitcoin Advanced Level: Transactions

21 Lessons | \$150.00

Blockchain Advanced Level: Uses Beyond Bitcoin

30 Lessons | \$150.00

NFT Fundamentals

36 Lessons | \$150.00



NFTs, Supply Chain e Metaverse

Blockchain Programming Fundamentals:
Ethereum and Solidity

30 Lessons | \$150.00

Smart Contracts With Solidity: Ethereum
and NFTs

33 Lessons | \$190.00

Blockchain in Supply Chain Management

41 Lessons | \$160.00

Metaverse Fundamentals: Blockchain,
Cryptocurrency and NFTs

33 Lessons | \$150.00

Create a Metaverse Using Three.js,
Solidity and NFT Tokens

43 Lessons | \$150.00



Criptomoeda

“

Cryptocurrency is a type of digital asset which can be used to exchange value between parties.

It uses cryptography to secure how it's transferred and to control the creation of new units of that currency.

”



CoinMarketCap, 29 agosto 2023

<https://coinmarketcap.com/>

Market Activity



Total Market Cap \$1.05T
(+0.32%)



24 Hour Volume \$22.8B
(+13.48%)



Notable Movers (XDC) \$0.06092
(+18.08%)



Notable Movers (DeFi) (AKRO)
\$0.01892 (+34.40%)



Bitcoin Dominance 48.34%
(+0.00%)



Bitcoin Price (BTC) \$26,012.08
(+0.26%)



Ethereum Price (ETH) \$1,645.20
(+0.51%)





Cardano Price (ADA) \$0.2614
(+0.57%)


















Ranking Market Cap – 28 agosto 2023



Largest Companies by Market Cap

companies: **7,857** total market cap: **\$91.751 T**  

Rank by **Market Cap** Earnings Revenue Employees P/E ratio Dividend % Market Cap gain More +

Rank	Name	Market Cap	Price	Today	Price (30 days)	Country
1	 Apple AAPL	\$2.808 T	\$179.66	▲ 0.59%		 USA
2	 Microsoft MSFT	\$2.409 T	\$324.33	▲ 0.42%		 USA
3	 Saudi Aramco 2222.SR	\$2.229 T	\$9.22	▼ 0.72%		 S. Arabia
4	 Alphabet (Google) GOOG	\$1.663 T	\$132.41	▲ 1.32%		 USA
5	 Amazon AMZN	\$1.371 T	\$132.89	▼ 0.28%		 USA

<https://companiesmarketcap.com/>



Nova Stablecoin

PAYPAL LAUNCHES DOLLAR-BACKED STABLECOIN



PAXOS



PayPal



PYUSD

The stablecoin, *PYUSD*, that will be issued by *Paxos* and will be *backed by U.S. dollar deposits* and *short-term U.S. treasuries*, will be available first for *US users only*.

<https://coinmarketcap.com/currencies/paypal-usd/>



Smart Contract – vending machine



Smart Contracts, also known as Smart Code or Smart Property, are computer protocols that can act as a contract.

A Smart Contract can handle autonomously the enforcement and fulfillment of a contract without needing a third party to oversee that the contract is executed.



A token is a digital asset that can represent anything. Some examples include securities, loyalty points and real world assets.

A token smart contract is a smart contract which is built on a smart contract platform such as Ethereum. These tokens can be exchanged securely over the Internet.



<https://www.slbenfica.pt/pt-pt/fas/benficatoken>

<https://www.socios.com/fan-tokens/>

BENFICA Fan Token

A tua palavra nas decisões
do SL Benfica





Casos de sucesso Blockchain – 1:23



<https://courses.blockchaininstituteoftechnology.com/courses/take/blockchain-and-bitcoin-fundamentals/lessons/2527700-business-use-cases-of-blockchain-beyond-bitcoin>

BOT
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Five Success Cases in
Blockchain Beyond Bitcoin



Blockchain supply chain

<https://courses.blockchaininstituteoftechnology.com/courses/take/blockchain-in-supply-chain-management/lessons/17441504-example-of-traceable-tuna>

BUMBLE BEE
SEAFOODS

TRACE MY CATCH

TRACE TUNA

BUMBLE BEE
SOLID WHITE
ALBACORE
TUNA IN
Water

Click arrows to scroll to tuna, salmon, or sardines.

FIND YOUR CAN CODE



Metaverse



<https://evveland.com/>



Metaplazas

Marketplace



BEST METAVERSE
OF THE YEAR

Interactive Smart Cubes with AI Agents

*Easily Create Shops, Showrooms, Exhibition Stands, Art Galleries,
Classrooms, Concierge Desks, VIP Lounges or Game Rooms*



Metaverse



<https://courses.blockchaininstituteoftechnology.com/courses/take/metaverse-fundamentals-blockchain-cryptocurrency-and-nfts/lessons/32642136-metaverse-use-case-work>

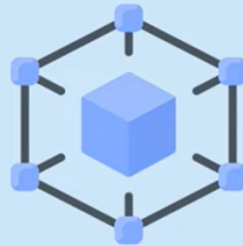


FC BARCELONA'S NFT SECURED \$132M INVESTMENT

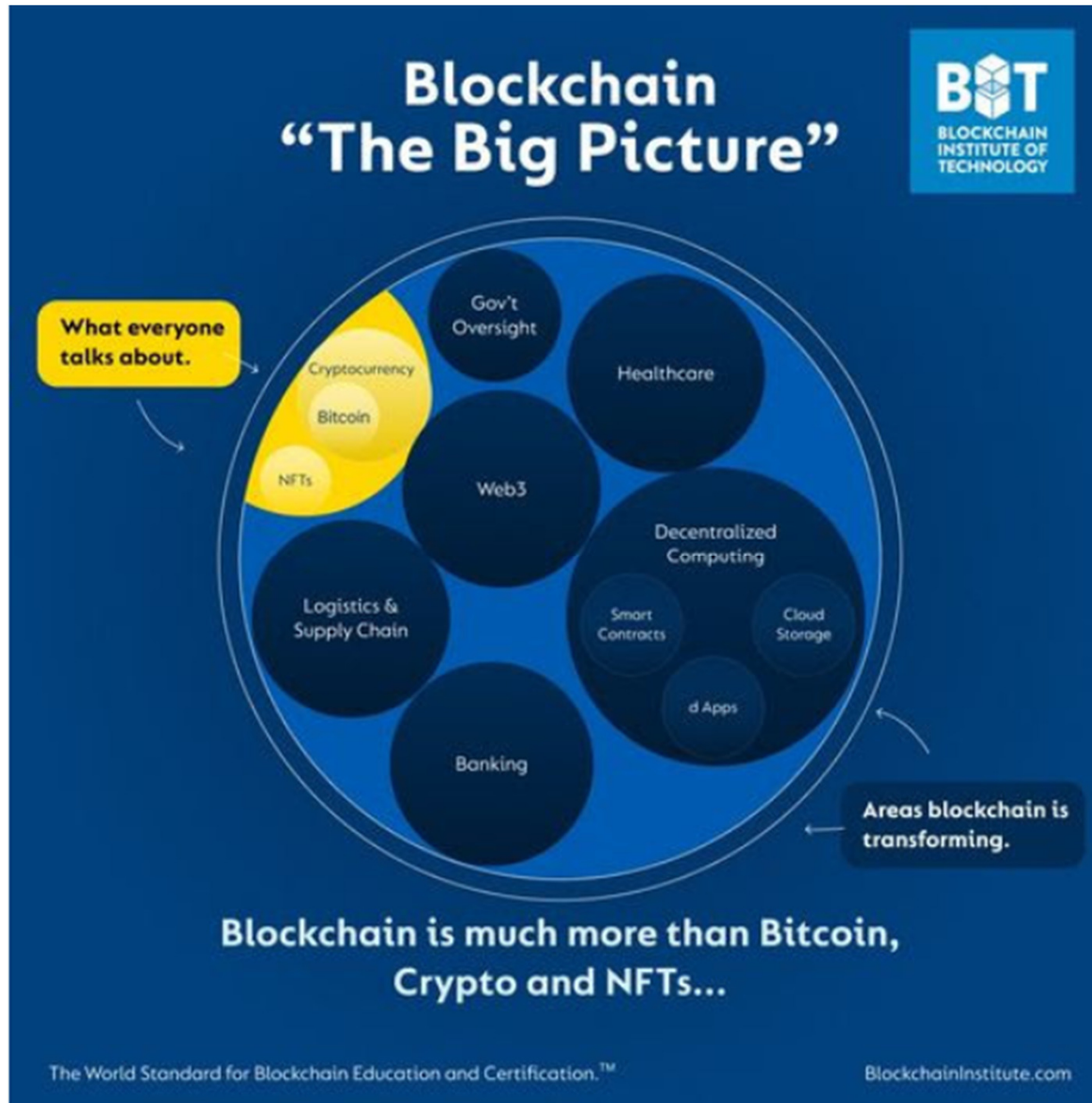


BARÇA
Vision

WEB3.0



Barcelona plans to incorporate Web3, blockchain, NFTs and the metaverse into its digital Espai Barca strategy.





<https://www.forbes.com/sites/bernardmarr/2023/08/14/is-generative-ai-destroying-the-internet/>

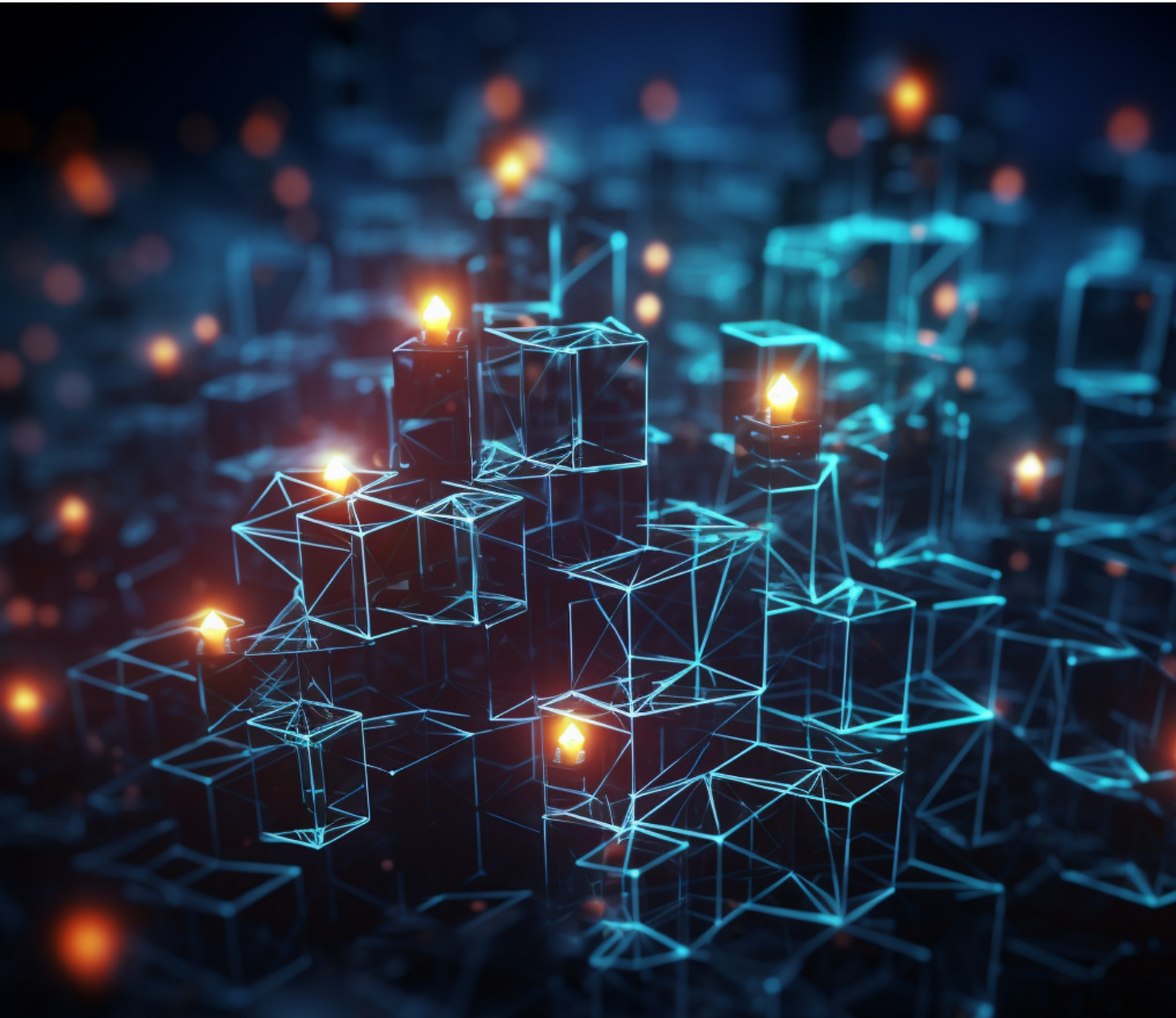
- In such a world, provenance becomes paramount. Knowing the origin of a piece of information might be the only way to ascertain its validity. This can give rise to a new set of **digital intermediaries** or "**trust brokers**" who specialize in verifying the authenticity of content.
- Technological solutions like **blockchain** could play a crucial role in **maintaining trust**. Imagine a future where every genuine article or photo is stamped with a blockchain-verified digital watermark. This watermark could serve as a guarantee of authenticity, making it easier for users to differentiate between genuine and AI-generated content.



<https://www.ulusofona.pt/lisboa/pos-graduacoes/blockchain-e-inteligencia-artificial>

The screenshot shows the website for the University Lusófona postgraduate program in Blockchain and Artificial Intelligence. The header includes the university logo, navigation links (Cursos, Notícias, Investigação, Eventos, Candidaturas), a search icon, and language options (PT, EN) with an 'abrir menu' button. The main content area features the text 'Pós-Graduação Blockchain e Inteligência Artificial' and 'LISBOA'. Below this, a paragraph describes the program: 'A formação combina teoria e prática, com cursos modulares certificados, em inglês. A formação em Blockchain oferece uma compreensão profunda de como a tecnologia está a transformar a economia com foco em aplicações como criptomoedas, NFTs, e Supply Chain e... [Ler mais](#)'. A circular arrow icon is visible in the bottom right corner of the page.

Condições favoráveis para membros OE Região Sul



Pós-Graduação U. Lusófona
Blockchain e IA

- **Teórica**
 - Blockchain
 - IA
- **Prática - cursos online BIT**
 - Blockchain e Bitcoin Fundamentals
 - Blockchain Advanced Level
 - NFTs
 - IA Generativa



Oferta Promocional

Cursos plataforma BIT

50% desconto sobre preço base.

A partir de 12 setembro, válida por 30 dias



Perguntas e Respostas

Perguntas por escrito, através de “chat”