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19 Blockchain application use cases that will surprise you

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Written by: David Bailey-Lauring

Blockchain applications are more than bitcoin and cryptocurrencies. Bitcoins' success is why it has become synonymous with all blockchain applications.

However, this is misleading because more blockchain applications are created to be used for several industry sectors to reduce cost, increase transparency and fairness and advance the sector's efficiency. Blockchain application use cases include:

- Supply Chain & Logistics
- Healthcare

- Retail & eCommerce
- Finance
- Property & Real Estate
- Media
- NFT marketplaces
- Heavy Industry & Manufacturing
- Music
- Cross-border Payments
- Internet of Things
- Gaming
- Personal Identity Security
- Government & Voting
- Anti-money Laundering
- Advertising
- Original content creation
- Automotive
- Smart Contracts

Supply chain & logistics blockchain applications

A key concern in the supply chain and logistics sector is the lack of communication and transparency due to the plethora of logistics companies within the industry. Furthermore, data is skewed or manipulated as every logistics company uses their own terms, making it hard for non-specialists.

A joint study by Accenture and DHL found that more than 500,000 shipping companies in the US alone are causing data siloing and transparency issues. The report says blockchain can solve many problems plaguing supply chain and logistics management.

The research argues that because blockchain enables data transparency by indicating a single source of verifiability, it can build greater trust within the sector. Blockchain applications have the bonus of making the logistics process leaner and automated, saving the sector billions of dollars a year.

Supply chain blockchain applications will reimagine how the supply chain sector and all those who function within it will work.

Read about the leading supply chain blockchain companies here.

Healthcare blockchain applications

Though early in its adoption, blockchain in healthcare is already showing some promise. Early blockchain solutions have demonstrated the potential to reduce healthcare costs, improve access to information across stakeholders, and streamline business workflows.

An advanced ecosystem for accumulating and sharing private information could be what medical healthcare professionals need to ensure an already inflated industry trims exorbitant costs. An example is the Estonian X-Road solution that connects different information systems for various services.

A blockchain network is used in the healthcare sector to preserve and exchange patient data through hospitals, diagnostic laboratories, pharmacies, doctors and nurses. Healthcare blockchain applications can accurately identify severe mistakes and can improve the performance, security and transparency of sharing medical data in the healthcare industry.

Read about the leading healthcare blockchain companies here.

Retail & eCommerce blockchain applications

The most common blockchain technology used in e-commerce is the Ethereum virtual machine, which provides a platform for eCommerce brands to manage their blockchains. The cryptocurrency Bitcoin allows customers to make purchases on sites and apps that accept Bitcoin as payment.

Because online financial transactions on the blockchain are more secure, using blockchain applications is a win-win for both brands and consumers. Furthermore,

it has added advantages of cutting costs, improving business processes, making transactions faster, and improving the overall customer experience.

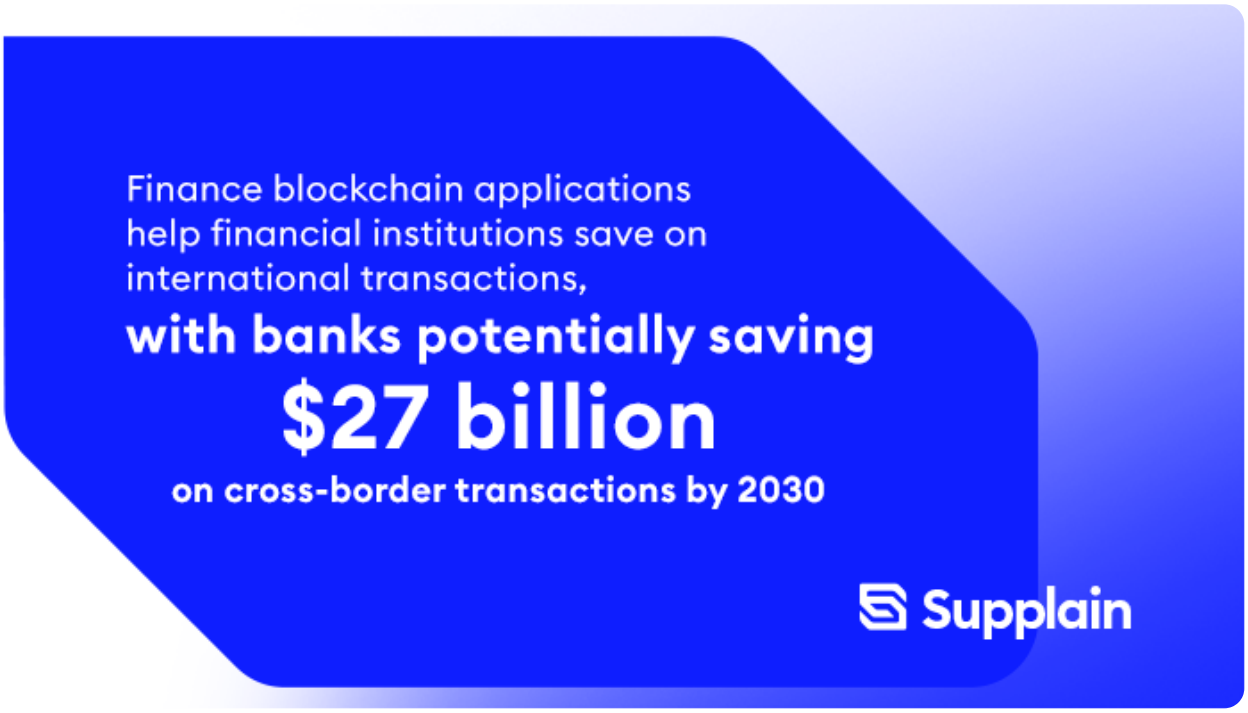
Because of its immutability, retail blockchain applications can ensure that manufacturers can't substitute your purchase with a cheaper product when you buy products, and retailers can't try to sell you a different, more expensive product. This also means that you can't return a 'fake' product and get a replacement. If the product is what you ordered, it will be what you received.

Read about the leading eCommerce blockchain companies here.

Finance blockchain applications

With its advantages, blockchain could have a massive impact on the financial services industry.

Blockchain can make payment processes more efficient. For instance, blockchains like Polygon and Solana and sidechains like Arbitrum can settle transactions in split seconds at $0.01 or less, which is considerably cheaper when compared with Visa, Mastercard and Amex. Finance blockchain applications like Ripple reduce costs for financial organisations and their clients and customers. Finance blockchain applications help financial institutions save on international transactions, with banks potentially saving $27 billion on cross-border transactions by 2030.



Since blockchains provide distributed, unalterable transaction records, financial institutions can use them for keeping records and bookkeeping and comply with regulatory agencies. The more immediate transaction settlements offered by finance blockchain applications can improve existing financial services.

For instance, lenders will be able to fund loans faster, vendors will receive payments quicker, and stock exchanges can immediately settle securities purchases and sales.

Property & real estate blockchain applications

Exclusive real estate investments will become available as an investment opportunity for everyone. For the first time, real estate-based security tokens enable proportional ownership of a plot of land or building, increase market participation for all, and open up new financing opportunities for developers.

Another factor that real estate blockchain applications can achieve is the highly efficient evaluation of property investments based on anonymous and comparable data.

The parties involved in a transaction can thus save themselves from financially expensive, independent real estate valuations, as all parties can access all available data on the blockchain. The entire property history is both transparent and traceable.

When buying a property and taking out a mortgage, all property buyers will find the current process tedious and labour-intensive. With several parties involved in the process, like notaries, estate agents and financial institutions, the mortgage process is highly vulnerable to human errors and thus could accrue additional costs.

With the introduction of property blockchain applications, the need to rely on paper-based and individual communication is reduced, reducing costs and human errors and speeding up the process. Thanks to a leaner lending process, this removal of intermediaries benefits borrowers and financial institutions that can offer more competitive pricing and lower staff costs.

Read about the leading real estate and property blockchain companies here.

Media blockchain applications

Key concerns within the media relate to data privacy, royalty payments, and intellectual property piracy. According to research by Deloitte, the digitisation of media has caused widespread content sharing and has caused copyright infringement. Deloitte believes media blockchain applications can offer the sector a much-needed facelift regarding data rights, piracy and royalty payments.

Media blockchain applications offer the media sector the ability to avert a digital asset, like an mp3 file, from duplicating in multiple locations. It can be shared and distributed whilst preserving ownership, making piracy virtually impossible through a transparent blockchain ledger system.

Additionally, media blockchain applications maintain data integrity, allowing advertising agencies to target the right customer demographics and musicians to receive appropriate royalties for their original works.

Read about the leading media blockchain companies here.

NFT marketplace blockchain applications

Non-Fungible Tokens (NFTs) have been the hottest blockchain application since the early years of cryptocurrencies. Recent years have brought a rise in these digital items that are currently taking the world by storm.

NFTs are unique (forgery resistant) tokens used to prove digital, physical or intellectual property ownership.

Remember the Nyan Cat meme? That memorable GIF sold for $600,000 in Ethereum in April 2021 on an NFT marketplace. Before his digital work *The First 5000 Days*, the artist "Beeple" never sold any artwork over $100. And yet, his *The First 5000 Days* sold for an astounding $69 million! NFTs allow buyers to own digital moments, art, and culture that will outlive us all.

Read about the leading NFT marketplace blockchain companies here.

Heavy industry & manufacturing blockchain applications

As factories worldwide become increasingly interconnected, the influence of blockchain is becoming more prevalent. The factory of the future spans a whole network of machines, parts, products and value chain participants, including machinery providers and logistics companies. Now, more than ever, manufacturers and heavy industry face sharing data concerns securely internally and externally of factory walls.

Equipped with detailed data that understands the challenges and opportunities they face, manufacturers can then choose the most appropriate option from technology solutions.

Manufacturing blockchain applications can scale transparency and trust through all stages of the industrial value chain, from sourcing raw materials to producing the finished product ready for supply chains.

Furthermore, manufacturing blockchain applications can eradicate counterfeit production, engineer high complexity products, identify management, asset tracking, quality assurance and regulatory compliance.

Music blockchain applications

Music blockchain applications will save the music industry billions by revolutionising the rights and royalties process, ensuring that writers, artists, publishers, and everyone associated with the industry are rewarded appropriately.

Adding music blockchain applications across the music industry would streamline the management of royalties and rights with a unique version of the artist's work, regardless of location and ownership rights - ensuring musicians are paid the correct amount more quickly.

Ultimately, this will save the music industry billions in lost revenues, delayed payments and legal costs. But for this to happen, the music sector must come together to determine a common practice and place trust in each other and the blockchain technology.

Read about the leading music blockchain companies here.

Cross-border payments blockchain applications

Pioneered by the world's first-ever cryptocurrency, Bitcoin, money transfer apps have exploded in popularity. Cross-border payment blockchain applications are proving extremely popular in fintech for the reduced fees and speed it can help individual consumers and newer businesses.

For instance, money transfer blockchain applications can save the most significant banks $8-$12 billion a year by eliminating bureaucratic red tape, making digital ledger systems in real-time, and reducing third-party fees.

Internet of Things blockchain applications

The Internet of Things (IoT) is an obvious location for new IoT blockchain applications. IoT devices have millions of applications open to security and hacking concerns.

An increase in IoT products means more opportunities for hackers to steal your data or make you a victim of fraud or scams on everything from smart home devices to online passwords.

IoT Blockchain applications will add a higher level of security by preventing data breaches by utilising transparency and virtual incorruptibility of the blockchain technology.

Read about the leading IoT blockchain companies here.

Gaming blockchain applications

Just as in an online Role-Playing Video (RPG) game like World of Warcraft, World of Freight or Fortnite, there are facets within the game that are familiar, special, unique, epic, and *legendary*. The legendary items are the rarest.

In gaming blockchain applications and blockchain-based games, you can determine how many legendary items are available in the game, such as 25. After this amount has been reached, there can be no more legendary items of this type. Even if these 25 items are identical, each unique item is remarkable since it will include the entire records of how that item has been used.

The game's best player might have owned it, and this knowledge will always remain with the item, even if someone else purchases it from them.

But what if the game you're playing stops working? Well, your item, on the other hand, will not stop working. This is because it can be transferred from one blockchain to another in the metaverse - the item is a non-fungible token and can be used in a new game. You need to store it in a cryptocurrency wallet.

NFTs are a type of content that can live on in the metaverse forever.

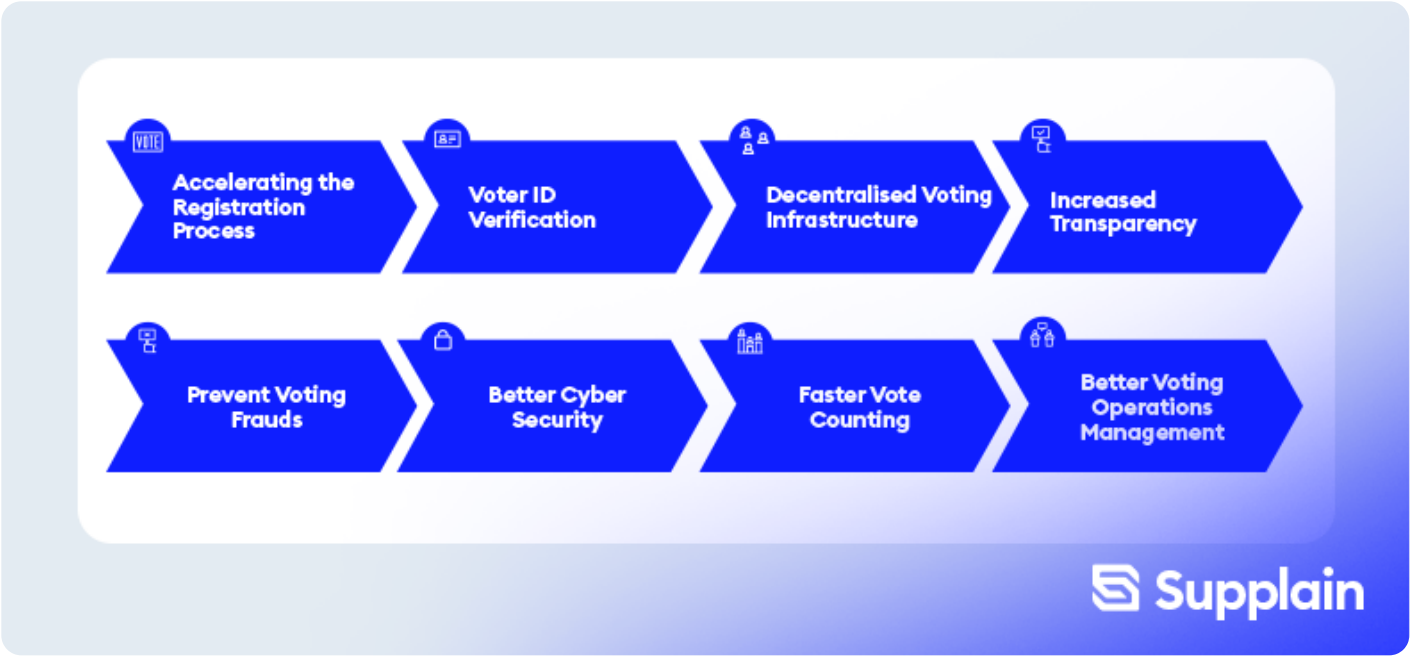
Read about the leading gaming blockchain companies here.

Personal identity security blockchain applications

Data from LifeLock and identity theft experts show that more than 16 million Americans complained of identity fraud and theft alone, with an identity being stolen every two seconds! Deception on this scale can occur via forged documents to hacking into personal files.

Governments who use personal identity security blockchain applications could see a massive drop in identity theft by keeping birth certificates, birth dates, and social security numbers; in fact, any sensitive information on a decentralised blockchain ledger.

Voting & government blockchain applications



Government blockchain applications can improve local political engagement, improve bureaucratic efficiency and accountability, and reduce massive financial burdens. Like Illinois, some state governments in the USA are already using the technology to secure government documents.

Government Blockchain applications have the prospect of cutting millions of hours of bureaucracy each year, holding public officials accountable through smart contracts and digital ledgers providing absolute transparency and producing public records, according to the New York Times.

Voting Blockchain applications could also revolutionise electoral processes. Blockchain-based voting could improve civic engagement and reduce voter apathy by providing a level of security and incorruptibility that allows voting to be done on mobile devices.

Anti-money laundering blockchain applications

Anti-money laundering blockchain applications possess inherent characteristics that can potentially prevent money laundering. Every transaction done over blockchain leaves behind a permanent trail of unalterable records. Thus, it makes it easier for authorities to track the source of the money's origin.

A public blockchain ledger can supervise, validate, and record each transaction's complete history. If all the transaction phases, including destination wallet, departure wallet, currency type and amount, are left unverified, the transaction gets immediately blocked.

Blockchain also enables money laundering risk analysis and reporting mechanisms. It allows overall system analysis rather than monitoring just entry and exit points.

Advertising blockchain applications

Advertising blockchain applications are a distributed digital ledger technology that promotes decentralisation and provides the ultimate security, traceability and transparency.

Once a digital record is stored on the blockchain, it is unchangeable, meaning that those with access can view the transactions but can't modify them.

Since a blockchain records information and transactions in real-time, advertisers can leverage it to keep track of ad spending. Ultimately, this can provide the transparency that current methods can't replicate.

Transparency isn't the only benefit. Speed is vital in advertising. It's complicated to follow inventory and ensure high-quality merchandise. Blockchain technology can keep up with the pace.

Read about the leading advertising blockchain companies here.

Content creation blockchain applications

Whilst there are some incredibly successful Instagrammers, YouTubers, TikTokkers and Facebook streamers reaping the rewards of social media fame, many content creators struggle to make ends meet.

This is because many challenges are involved in this industry. Such challenges centre around the following issues:

Plagiarism: Content creators often spend an astonishing amount of time on a project only for it to be stolen or replicated by someone else.

Intermediaries: Whilst digital platforms offer content creators the opportunity to earn money from advertisers for their efforts, the media platform they post on will significantly cut their profits. For instance, Facebook's Watch feature consumes around 45 per cent of all revenue.

The industry is currently structured to favour the platform or intermediary instead of the creators. Creators only receive a small portion of the profit a piece of content generates, or creators need to have a considerable following to see any actual monetary returns.

To solve the current challenges of content creation and create a fairer and more rewarding ecosystem, blockchain technology may be the answer to enrich and empower artists through its content sharing social media ecosystem.

Automotive blockchain applications

For those working in car sales and manufacturing, a lack of operational transparency is a daily struggle. By implementing automotive blockchain applications for payments, the industry can create a unified platform to quickly track down and pay for vehicle parts, services and manufactured vehicles.

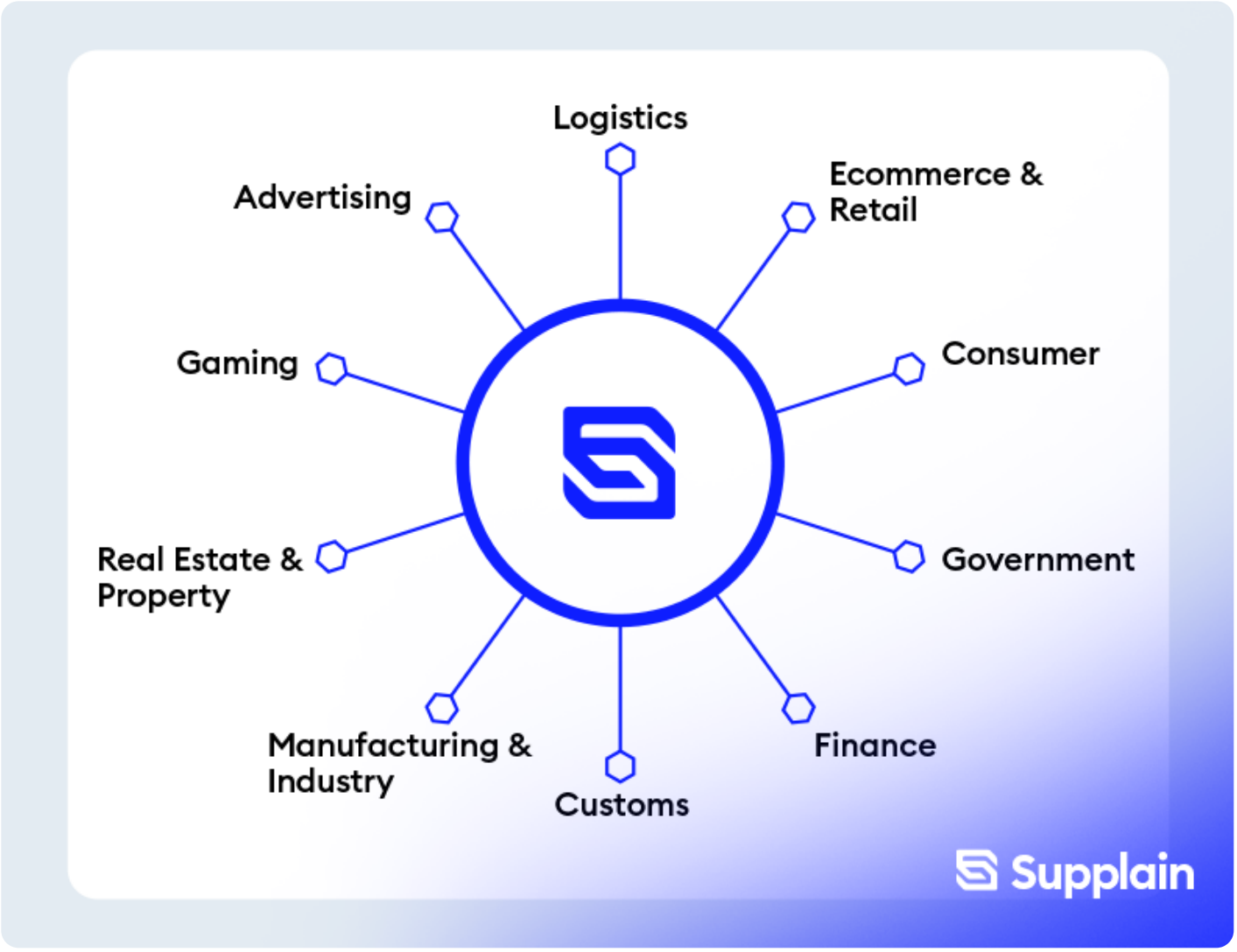
Compared to traditional paper-based systems and digital web2 databases, automotive blockchain applications are immune to accidental data loss, human error or deletion.

The popularity of ridesharing and carsharing services has increased as car ownership has become more expensive than sharing one. But what matters here is using blockchain technology to process automation and prevent fraud.

Fraud is the biggest challenge for both providers and recipients of automotive services. With smart contracts, blockchain technology can help all parties create binding financial agreements that they will execute with a guarantee after all agreement conditions are satisfied.

Read about the leading automotive blockchain companies here.

Smart contracts blockchain applications



Smart contracts are like regular contracts, except the contract rules are enforced in real-time on a blockchain without ambiguity, eliminating the middleman and adding accountability for all parties involved in a way not possible with traditional agreements. This saves businesses time and money while ensuring compliance from everyone involved.

Blockchain-based contracts are becoming more and more popular as sectors like government, healthcare, and the real estate industry discover the benefits.

Blockchain applications have potential far beyond bitcoin and cryptocurrency.

From a business perspective, it's helpful to think of blockchain technology as a type of next-generation business process improvement software.

Collaborative technology, such as blockchain, promises to improve the organisational processes *between* companies, organisations and people, radically lowering the 'cost of trust.'

For this reason, it will offer significantly higher returns for each investment dollar spent adopting tomorrow's technology.

Resources you'll love:

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