

Unidouble: An autonomous e-commerce platform

Introduction

Unidouble is a decentralized marketplace built on the Solana blockchain that also uses shadow drive to store items informations. Unidouble operates on a decentralized network that is transparent and secure, enabling buyers and sellers to engage in transactions without the need for intermediaries. This whitepaper aims to explain why a decentralized marketplace like Unidouble works and how it can be better than centralized marketplaces like eBay or Amazon.

Advantages

An e-commerce platform stored on a blockchain has these characteristics compared to traditional e-commerce website:

1. User anonymity
2. Fair item ranking
3. No dark patterns
4. Low fees

User anonymity

When it comes to e-commerce platforms, it's true that users need to provide some personal information like their email, name, phone number, and address to complete their transactions. This is because e-commerce platforms require this information to process orders, ship products, and communicate with customers regarding their purchases. Without this information, it would be impossible to complete a transaction on the platform.

Some platforms may collect and use user data in ways that are not transparent or ethical, such as selling or sharing user data with third parties without user consent. By connecting to the e-commerce platform with a Solana wallet, Unidouble guarantee that no personal data is shared.

When a user buys an item, he gives the delivery address to the seller. The delivery address is encrypted on chain with the Diffie-Hellman key exchange. That way, only the seller is able to decrypt the address.

Fair item ranking

An open source ranking of items and a lack of ads can be beneficial for e-commerce platforms like eBay or Amazon in several ways. It ensure that products are ranked based on their actual quality and relevance, rather than the amount of money paid by sellers to promote them.

Additionally, an open-source ranking system can foster competition among sellers by giving all sellers an equal chance to have their products displayed prominently on the platform. This can create a level playing field, where smaller and newer sellers can compete with larger and more established sellers, leading to a more diverse and dynamic marketplace.

Furthermore, a lack of ads can improve the user experience on the platform by reducing distractions and improving the overall browsing and shopping experience for users. Ads can be intrusive and often lead users away from the products they are interested in, which can be

frustrating and reduce user engagement on the platform. Unidouble uses the Bayesian average to rank items.

No dark patterns

Dark patterns are design tactics that are intended to manipulate users into taking actions that they may not want to take, such as making a purchase, subscribing to a service, or sharing personal information. These tactics can be misleading, deceptive, or exploitative, and can ultimately erode user trust and loyalty.

Example of dark patterns used by centralized e-commerce platform:

1. Sneak into Basket: This tactic involves adding additional items to a user's shopping cart without their knowledge or consent. For example, a website may offer a free trial of a product, but add a related item to the user's cart that they did not select.
2. Misdirection: This occurs when a website intentionally directs a user's attention away from an important piece of information or action. For example, a website may use a pop-up that obscures an important piece of information, such as shipping fees or return policies.
3. Forced Continuity: This occurs when a user is required to opt out of a service or subscription that they may not want. For example, a website may offer a free trial period for a service, but require users to enter their credit card information upfront. If the user does not cancel the service before the trial period ends, they will be charged automatically.

Open source eliminates dark patterns from an e-commerce website, users can have a more ethical, transparent, and trustworthy e-commerce experience.

Low fees

Centralized platforms charge high fees for their e-commerce services for several reasons. They invest heavily in marketing, advertising, and promoting their services to attract more buyers and sellers. The fees for Amazon or eBay are around 15%.

The fees on Unidouble could be as low as 0%. However, buyers would buy their own items and write fake reviews if that was the case. A minimum amount of fees is needed to stop this. We have chosen a fee of 6% for the seller. Unidouble also give a 1% cashback to the buyer when he reviews an item he bought previously, giving him an incentive to do so.

Example:

1. Seller list an item for 100 USDC
2. Buyer pays 100 USDC and buys the item
3. Seller receives 94 USDC, 5 USDC goes to Unidouble, 1 USDC is still locked.
4. Buyer review the item and receive the 1 USDC cashback.

Conclusion

By operating on a decentralized network, Unidouble offers a level of transparency and security that is not possible with centralized marketplaces. Blockchain technology ensures that all transactions on the platform are secure and transparent, while shadow drive provides a decentralized storage solution that is more secure and resistant to censorship. Overall, Unidouble offers a more inclusive and secure marketplace that is better suited to the needs of buyers and sellers.