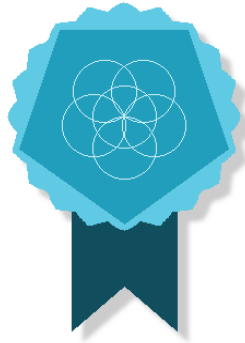


Deep Links Micro Pages

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What is a Deep Link Micro Page

A Deep Link Micro Page does the impossible task of creating a unique digital identity while maintaining your anonymity. We offer a service to give your apparel a digital presence. We do this by embedding the clothes with a decentralized identifier and providing a micro webpage that end-users can interact, customize and curate. View our demo at YQue.net

Why do I Want a Deep Link Micro Page

When you buy a product embedded with a Deep Link Micro Page (DLMP), you are given a mobile-friendly website where you can add information, links to social media, payment-gateways, and mint Non-Fungible Tokens (NFTs). Along with this, DLMP gives your clothing anonymous access, without signing up, to any platform that supports the OpenID standard for requesting and receiving information. The micro page is animating your clothing by giving it a digital presence, while simultaneously creating an identity gateway for other applications.

A Deep Links Micro Page is the natural progression of the digital world fusing with the material world. Cellphones became smartphones by expanding their utility into a connected identity and gateway to a plethora of applications. A Deep Link Micro Page gives your clothing a decentralized identity and acts as a gateway for your physical clothing, and you the owner, to connect to online applications without signing up, privately and anonymously.

Why Does a Company Want DLMP

Deep Link Micro Pages provides services that are sold to companies, not the end-user, to streamline the integration of decentralized identities and micro pages into physical objects. For apparel companies, by applying a small QR code on the sleeve of their shirt, they add service value to the shirt by giving the end-user a micro page, along with continuing to engage with the customer after the point of sale.

The micro page may provide the customer with information about the product they purchased: sources of raw materials, country of manufacturing or blend of fibers used. Apparel for game companies can offer in-game items with their clothing products. Apparel for concerts can offer collectible NFT drops that make every shirt they produce one of a kind and digitally verifiable. The shirt's identity can be the credentials used to seamlessly login to any website that uses OpenID to authenticate login, providing the customer with unique membership rewards.

How Deep Links Micro Pages Work

What we sell to apparel companies is identity as a service. A streamlined process to generate micro identities on clothing. Along with this, we offer a web application that allows end users to own the micro identity of the product.

Three easy steps to create a Deep Link Micro Page:

1. Pick a physical object to imbue:
 - a. Shirt
 - b. Sticker
2. Generate a unique identity that is readable by phones:
 - a. QR code
 - b. RFID tag
3. Embed the identity into the apparel using embellishments:
 - a. Heat-transfer
 - b. Direct To Garment (DTG) printing
 - c. Clothing tags

Currently, we offer services for generating bulk identities and printing their respective QR-codes onto heat transfer paper for easy application to common garments. We partnered with a clothing boutique called Y-Que trading post in Los Feliz, to prototype and distribute our first samples.



Background

My father owns a small business in Los Feliz selling screen printed t-shirts. We worked together on this concept in an attempt to reduce the unnecessary waste and to help my father with his brick and mortar store which has become an increasing novelty in this age of the internet.

Proof of Concept: Free Ukraine Sunflowers

Recently, my dad distributed planted sunflowers for free out on the streets of Los Feliz. Attached to each of the sunflowers was a post and sticker with the image of the national flower of Ukraine: the sunflower. Embedded in each of the sunflower images is a QR code that leads to a micro page created from the services provided by Deep Links Meta Pages.



As people walked by the store, they picked up sunflowers to bring home and plant in sympathetic solidarity and respect for the Ukrainian people. Each of these sunflowers tastefully embedded a link to a micro page that provided information and links to raising awareness about war in Ukraine, how to help and a reference to my dad's store. This was a great way to distribute information quickly and discreetly all while using the services by Deep Link Micro Pages.

Value

Deep Link Micro Pages (DLMP) expands the experience and utility associated with clothing by adding a separate dimension of interaction. When an end user scans the QR code they will be directed to a unique micro page, associated with their specific product. Along with the clothing, the user owns this mobile friendly micro page and can customize it with links, texts, payment gateways and more. Their webpage is an anonymous home that can only be viewed from physical interaction with the person and their clothing. Critically, the customer buys a decentralized identity embedded with their clothing; the associated micro page is simply a gateway to interact with this identity.

To showcase the identity associated with the product, when you first login to the webpage you are able to mint a badge. Each self-sovereign decentralized identity is used as the seed to deterministically create the metadata and graphic for the badge.



When the badge is minted, a Non-Fungible Token (NFT) is created from the self-sovereign identity on the Shimmer decentralized ledger and can be registered in Chrome, FireFox or Edge by using the MetaMask plugin. By leveraging the established MetaMask plugin or OpenID interfaces, you can use your NFT and decentralized identity as a proof of purchase for entities to easily verify the authenticity of your ownership of a product without requiring any paperwork, driver licenses, receipts or personal information. The garment, qr code, webpage, badge, and NFT are all embodiments of the same decentralized identity and can be used in person or online to both personalize the clothing experience and provide membership opportunities.

Market Competition

Other similar services include LinkTree, FlowCode, Carrd, Milkshake and Beacons. Many of these listed companies are varieties of “Link-in-bio” companies providing vertical mobile friendly web pages for content creators to reference on their social media accounts. LinkTree recently received \$45 Million in series B funding with 16 million members. Carrd tries to be unique by offering more features while FlowCode differentiates itself by using QR-codes to link to mobile-first landing pages. FlowCode is owned by The DTX Company valued at \$10.45 million by Dun and Bradstreet.

What highly differentiates our product is in three parts. First is the anonymity brought by having your identity and access the webpage be physically embedded into the clothing. Second, is the features of the webpage allowing a social media like experience and real-world functionality like payment gateways. Lastly, the self-sovereign identity provides a unique function to personalize clothing as a form of membership and to easily verify the authentication of clothing.

Market Valuation

The apparel market was valued at \$368 billion dollars in the U.S. for 2019 by Statista. Normalizing the revenue by the 328 million people in the United States or 3.97 million in Los Angeles leads to \$1,120 per year per person spent on clothing. Los Angeles alone has 75.8% of its population above the age of 21 giving us a market in this county of 3.01 million people. These people give us a potential market value in LA county of \$3.371 billion dollars.

Monetization and Costs

The marginal cost of this business is low. This business sells url endpoints and would provide a service level agreement to its customers. When an apparel company buys 100 QR codes, they are purchasing 100 identities and websites that will be supported under the service level agreement. The web-services currently cost \$15 per month and should be able to support thousands of QR-Codes being distributed. The web-services are efficient and have low overhead.

A physical service we could provide would be printing and shipping heat-transfer ready to use identities. As a worst case scenario for all these estimates, one sheet of heat-transfer paper is \$2 for 16 QR codes. For high-quality ink costs we estimate \$2 per sheet. This makes the QR code

have an upper bound cost \$0.25 each. This cost would reduce greatly as we buy materials in bulk. Additionally, a high-quality ink printer would have a fixed cost of \$300 each. If we sold 128 QR codes with priority shipping at \$8, and it took someone 1 hour at \$20 an hour to print, pack and ship the product. This would cost \$60 in total or \$0.46 per QR code. **At a conservative estimate, if the QR codes were sold at \$1 per identity, that would be a 54% profit per QR code before server and rental fees.**

For the server, let's assume the service level agreement is for 10 years. The server that can support 5,000 identities costs \$180 a year or \$2,300 for 10 years. This translates to a cost of \$0.36 per identity for 10 years of support. Selling each identity for \$1 would leave us with \$0.64 profit per identity. If we also sold the QR code, **our net revenue would be \$2, our costs would be \$0.82 leaving us with \$1.18 profit per QR code identity.**

Further Monetization

We discussed in the previous section how to monetize the QR code identities themselves. We at least two additional pathways to monetize in this service:

- Providing premium services to the company itself.
- Providing premium services to the end-user that the company can pay for.

For concert apparel we can offer unique NFT drops to give a personalized clothing experience for the fans of their favorite artists. When you buy clothing from a game company, the Deep Links Micro Page can offer unique in-game items that can only be obtained from clothing purchases. The clothing itself could be a membership into an online game. Another premium service could allow vendors to attach the logistical history of the product to the webpage, proving that the clothing was ethically sourced, displaying its environmental impact or proof that the company is making ethical donations. School clothing could use these webpages to mediate fun educational games that could additionally function as an inter-social experience.

Lastly, we can monetize and sell to companies additional features that they can add to the end-users micro pages. These features could include image support allowing them to make a completely functional website their internet presence. If this internet presence was a store we could provide embedding with ebay, etsy, or shopping carts like shopify. Additionally, we could also support credit card or cryptocurrency payments through the payment gateways. For all of these premium features, the company would pay for them to make the micro page for the customer a more unique and personalized experience with the company's clothing.