SmartPage by TryCrypto

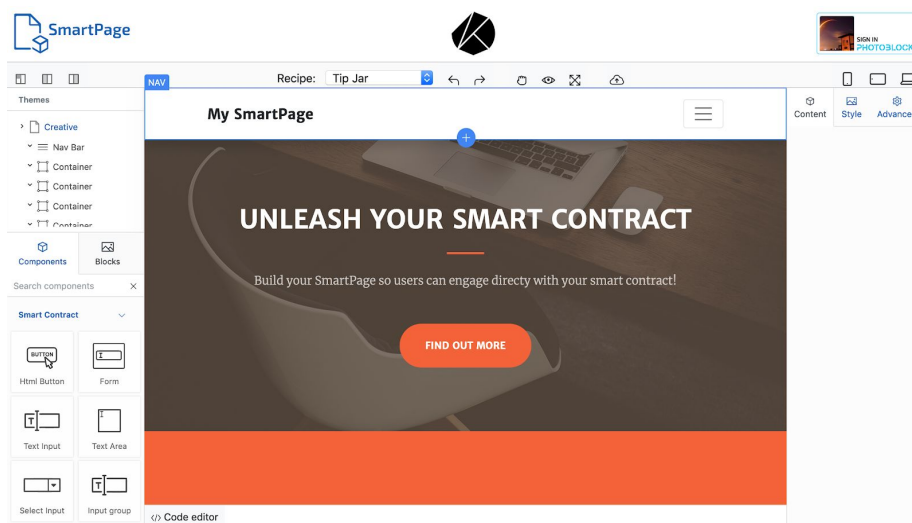**Team TryCrypto has awesome people:**

- [Chase Chapman](#) – UX Designer (Ann Arbor, Michigan, USA)
- [Niharika Singh](#) – Developer (Gurgaon, Haryana, India)
- [Nik Kalyani](#) – Software Architect/Team Lead (Mountain View, California, USA)

We are a team of volunteers on a mission to make blockchain and cryptocurrency more accessible to mainstream users. Our organization – [TryCrypto](#) creates free content and Open Source tools for blockchain. TryCrypto is a staunch believer in blockchain technology and the immense potential it has to change the world.

Problems with the current blockchain ecosystem

Today, the blockchain ecosystem appears to be built by engineers, for engineers. As a result, people without a technology background find it challenging to understand and use. Blockchain Applications (BApps) developers also find it tough to engage with smart contracts because each blockchain platform follows different rules with varying levels of difficulty.

To fix these problems, we built **SmartPage**, a blockchain agnostic platform that makes smart contracts easy to build, deploy, and interact with without having to write a single line of code.

SmartPage gives users the freedom to select a blockchain platform like Klaytn and the network they would like to operate upon like the Baobab Testnet. The user can either use native **recipes** created by TryCrypto or import their own smart contracts. Choosing from a library of themes, users can drag and drop elements to easily customize the look and feel of the BApp easily. ([SmartPage themes on IPFS](#))

After finalizing the UI and deploying the smart contract, SmartPage automatically publishes the BApp to the Inter-Planetary File System (IPFS) and opens a new tab in the browser where the user can interact with their beautiful looking BApp.

SmartPage aims to make builder's life easy by not having them reinvent the wheel to build a BApp. They do not have to care about the underlying protocols; SmartPage does it for them.

Experience SmartPage (preview) here: https://klaytn.smart.page

SmartPage Future

Our vision is to build an ecosystem of developers, tinkerers, and individual/business end-users. Ecosystems influence the people and organizations within them, who in turn shape and change ecosystems of which they are part.

SmartPage has the potential for mass-adoption due to the fact that it greatly simplifies the process of building upon any blockchain platform. The way Apple's App Store offers thousands of apps to choose from, SmartPage can also become a huge monetized ecosystem and a marketplace where thousands of developers can create free and premium recipes that end-users pay to incorporate into their business and personal workflow on web as well as mobile.

SmartPage Technology

SmartPage intuitively creates a UI by analyzing the read-write functions of the recipe/custom smart contract. When the user imports a recipe or a custom smart contract, SmartPage parses the Application Binary Interface (ABI) of the smart contract and generates a **JSON Schema** on the fly. This JSON Schema is consumed by a custom web UI generator to render the UI components that the user can add to a theme.

SmartPage makes use of **PhotoBlock**, another tool made by TryCrypto, to authenticate the user and sign all transactions in a fully decentralized and secure manner. The first step to use SmartPage is to sign-in using PhotoBlock. The PhotoBlock plugin can be found on the top-right of SmartPage.
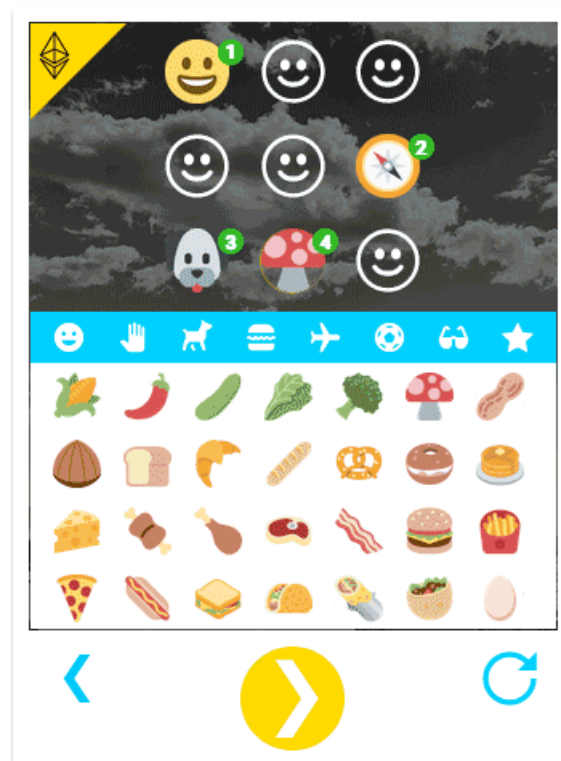
PhotoBlock Technology

PhotoBlock works with a photo you provide (any JPEG will do) and your personal emoji sequence called an **EmojiKey**. The photo is transformed into a downloadable PhotoBlock file with embedded accounts for Klaytn, Web, Bitcoin and Ethereum. Once your PhotoBlock has been created, you can then use it with your EmojiKey to unlock and access the accounts anywhere PhotoBlock has been integrated. Think OAuth2, but for Web 3.0.

Benefits of PhotoBlock:
-   PhotoBlock can be added to any BApp or website by a developer in just a few minutes, making it easy for users to authenticate and access the BApp/website without the hassle of usernames, passwords, private keys, mnemonic passphrases and generally everything that users dislike.
-   It uses the OAuth2 standard with a public end-point to provide a secure, 100% decentralized authentication and account management solution for any blockchain BApp or website.

Developers can focus on building awesome apps for their users — PhotoBlock does the rest!
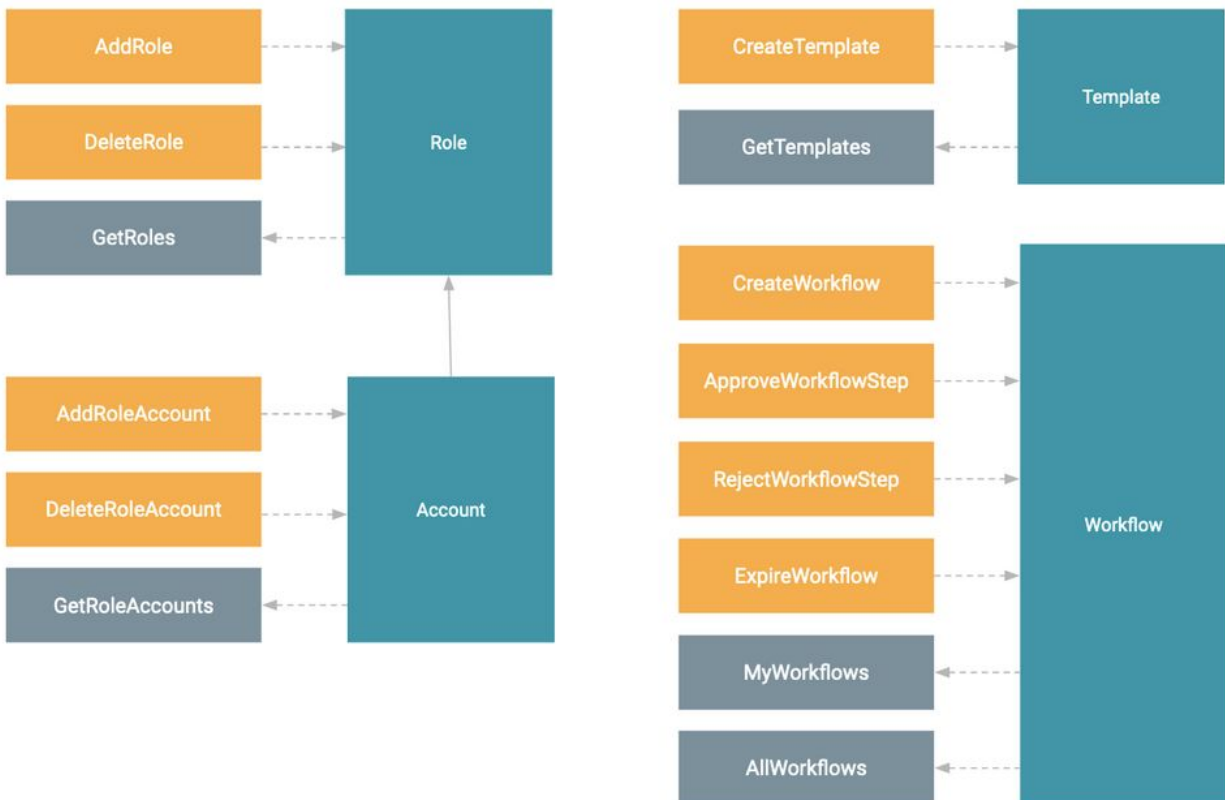
SmartPage Recipes

TipJar Recipe (Contract address: 0xa97AFDDcace8FF6DE157bc52b24B8B16CD5E05c4)
TipJar is a personal recipe for receiving tips (donations) for published works. The contract owner can add an item to the contract by calling the `addItem()` function with the title and URL of the item (published work, or anything else that has a URL). Items are stored in the contract using the keccak256 hash of the title and URL as key. Anyone can call the `tip()` function with an item key as parameter and send a payment tip to the contract owner. The functions `getItems()` and `getItem()` can be used to enumerate and retrieve items for display in Smart Page.

Workflow Recipe
Workflow is a business recipe allows users to create and manage multi-step workflows in a decentralized environment, ideal for facilitating collaboration between untrusted parties, like competitive marketing agencies. In a business scenario, there can be many workflows like budget approval etc which may need signing from multiple untrusted parties. Conventionally, every workflow follows a particular template. The workflow recipe enables the contract owner to create their own templates and workflows to manage their business processes.

SmartPage Impact

By nurturing and growing the nascent ecosystem based on smart contract technology, SmartPage will have a significant social impact. Also, many key discussions on the financial, privacy, technical, and ethical considerations of the use of decentralized technologies are taking place now. As an independent, blockchain-agnostic platform, SmartPage aims to be the nexus for these discussions, having a positive impact and driving meaningful change as decentralized technology evolves.

Tools and Technologies Used

We made use of the following tools and technologies:

- caver-js library
- Baobab testnet
- Klaytn IDE
- Klaytn Wallet
- Klaytnscope
- Truffle
- Ganache
- Babel
- Javascript
- Bootstrap
- jQuery
- JSONSchema
- And many others