

POCRE

(Proof of Co-Creation)

1. DIFFERENTIATOR

1.1 WHAT IS THE PROBLEM YOU ARE TRYING TO SOLVE?

For remixes, mashups & collaborative work, copyright is impossible to manage and own. Authors and publishers don't recognize co-creations and sue new digital artists.
POCRE solves the authorship acknowledgement of materials made by multiple authors, via a novel identification process based on a layer 2 blockchain solution.

Managing copyright is a challenge in the digital world, as there is not a perfect solution for emerging artists who build on existing works. There continues to be a problematic identification process of who retains authorship, and copyright, surrounding music and digital media that deploys the use of existing works. With trends building around remixes, mashups, intermusical, and intermedia works, authors and publishers continue to debate about who owns the product. For example, creators of original operas that create new and artistic materials by the composition of other materials can never claim the opera as original and gain any rewards, actually, they are sued by the law. Mashup creators or anybody creating an opera without working directly (or knowing) other authors are also subject to this problem. POCRE solves this problem through the authorship acknowledgement of materials that have different authors using a blockchain identification process. Some of the key aspects of the problems being solved relate to the following users within the process:

- 1st Creator Autonomous authorship management
- Co-Creator: Invited to authorship acknowledgement
- Claimer: Claim authorship acknowledgement
- Litigator: Resolving disputes

By connecting various creators through an authenticated reputation based on wallets, parties are able to interact in a workflow that allows for complete transparency in the ownership, authorship, and copyright process.

Wallets will contain a reputation indicator and history of creations viewable to everybody, in order to increase user reliability.

1.2 WHAT IS THE LEVEL OF YOUR RESEARCH COMPARED TO THE STATE-OF-THE-ART?

As there are more and more ways to express creativity, publish works, and claim authorship through decentralized mediums and platforms on the internet, a globally recognized state of the art model does not exist. While corporate mainstream possibilities exist under major recording businesses and labels where copyright can be claimed, this does not represent independent artists well. Independent publishers can still claim authorship and ownership of materials, but the process is often expensive and difficult to prove without an overseer. There have been some proposed solutions in the field, such as neighbouring rights, where collaborators (in the sense of interpreters of the opera) are given rights for their creative works as “neighbours”, but the program and process fall short due to a lack of fluidity, lack of innovation and technology, limited of use cases, and simply too rigid to evolve with the current creative productions that exist today.

As a result, there are often problems in claiming and proving originality in works. In order to meet the demands of existing copyright claims, and provide ownership and authorship rights, a KYC verification process that deploys blockchain technology and issues certificates on the blockchain is the desired solution provided by POCRE. Identifying all the parties involved in the process and appeasing all the ownership and creative works by each contributor is a central component of our blockchain system.

The adoption of blockchain in the field of copyright is a new concept in the past decade, even if NOT globally adopted. For example, Algorand blockchain is used by SIAE (the official Italian copyright collecting agency) to store the copyright as a “simple” immutable record store of authors in the “traditional way”. However, co-creation ownership, real-time claiming and litigation processes are not managed. POCRE is innovative in the process but also novel in technology because internally implemented via a layer 2 blockchain solution. In POCRE, the transition data (claiming and litigation) are immutable but not permanent. Only at the end of the N possible transitions (for N coauthors) the final block, containing all the elected co-authors, is permanently and immutably stored on the layer 1 chain.

POCRE is fully decentralised and on-chain, it doesn't use any off-chain storing process or centralized APIs (like infura.io) to retrieve data for the clients.

When comparing it to other similar products like shout4.com where authors are offered recognition for their work, inside a centralized platform that can guarantee and validate recognition only inside itself - **POCRE goes beyond traditional copyright processes, beyond traditional web 2 (centralized) mechanisms, beyond traditional blockchain solutions. It is a pure web 3 on-chain, decentralized, without any third-party custodianship, fully autonomous, sustainable and anti-censorship.**

2. CONCEPT & BREAKTHROUGH

The concept is a development that deploys certificates of authorship that can be used for claims of ownership and copyright by using a media identification process. Authors are able to showcase original works that are built on existing works, as evidenced by remixes, mashups, and other intermedia works that deploy collaborative media. By identifying the original works, both dues can be paid on materials that have been used under existing copyright claims, as well as identification of new media that arises from creative development. Besides providing content analysis and verification, the breakthrough involves multi-party authentication management using a blockchain solution. The opera is also stored on an IPFS system and optionally published to social media after it has been approved. As part of the vetting process, users are required to create a POCRE wallet where they receive the official certificates of authorship and ownership, which can be proven on the blockchain.

2.1 Vision statement

To create an identification and recognition platform using a blockchain layer 2 solution that engages authors and creators of new media and issuing a certificate of ownership and authentication of original works.

2.2 Who is it for?

The solution is designed for media creators and authors who struggle with copyright issues, either as new creators, or existing creators whose work has been used in another creative work.

2.3 Who is out?

The product solution is designed for creators and authors, this exclusion only applies to those who do not fall within this category.

2.4 Needs

Authors and creators need to have a global system like POCRE where they can get recognized for their creative developments and productions across the world without legislation barriers and censorship.

2.5 Barriers

Possible barriers include access to digital media content creation via the internet as currently the system only recognizes media that is in digital format.

2.6 Top Features

Some of the top features are the opportunity to get recognition for your creation, identify co-creators, and get your work certified and published on social media. Other core functions include the possibility of earning a royalty on revenue from sales of works as part of a royalty generation function.

2.7 Business Expectations

There are millions of dollars in value attributed to the business through intellectual property management. Assuming every transaction for claiming authorship is done through a micropayment, POCRE can quickly become sustainable and grow. Artists, because of the easy and cheap entry point, could start to use it intensively and globally.

2.8 Barriers

Value is achieved through adoption and usage rates, this is dependent on the level of usage, as currently there appear to be no barriers to the scalability of the technology.

3. TECHNOLOGY:

The technology is one of the most advanced product solutions on the market today for recognizing authors, creators, and co-creators in the digital creation process. It goes a step further by not only recognizing these authors and contributors, but also validating the creations on the blockchain, and issuing a verification certificate. To further enhance the outreach and marketing and development of the platform and solidify its presence as an authority in the space, the digital creation is then populated to the internet via social media where content can be downloaded/verified and authors can receive stipends in the form of royalties should their content be priced for sale.

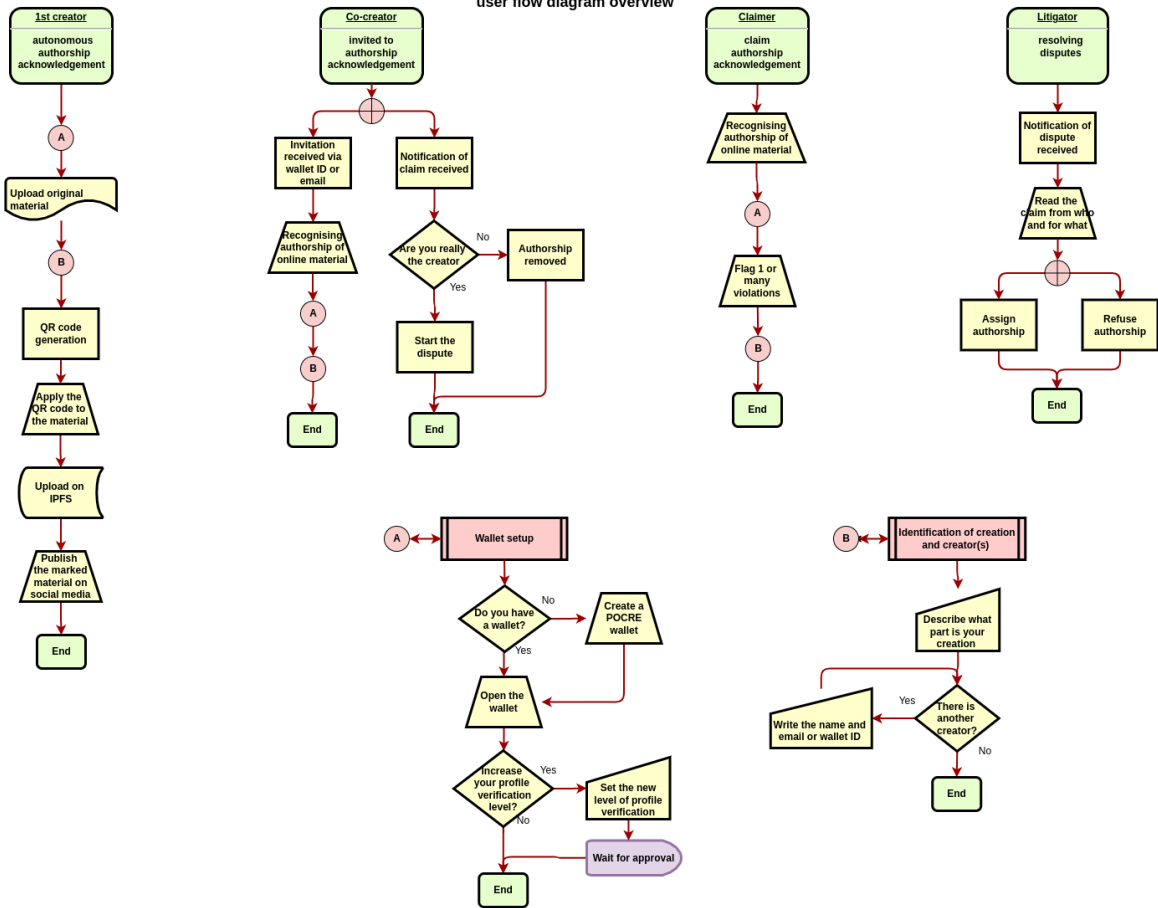
Based on the usage and adoption, currently, there appear to be no barriers to the scalability of the technology, thanks to the innovative layer 2 approaches. When comparing it to other similar style products like Shout4.com - where authors are offered recognition for their work inside a centralized platform that can guarantee and validate recognition only inside itself - POCRE goes beyond traditional mechanisms by using a global blockchain. Being globally decentralized, the POCRE solution advances the socio-economic benefits for creators, producers, and consumers alike, outside any authority and auto regulated by the actors themselves. In this model, users control and regulate their creative destiny without any central authority, thus allowing for more creative and economic freedom.

In order to reach technological readiness levels 7 through 9, we are testing our solution so that the prototype can be verified and written to the blockchain. Having already demonstrated our technology is ready to move into an operational and scalable environment, we are near readiness levels 8 and 9. We can prove our system through successful mission operations and evaluate it as part of an iterative feedback cycle.

Below is the user flow diagram, where it is possible to see all of the interactions between the four types of actors.

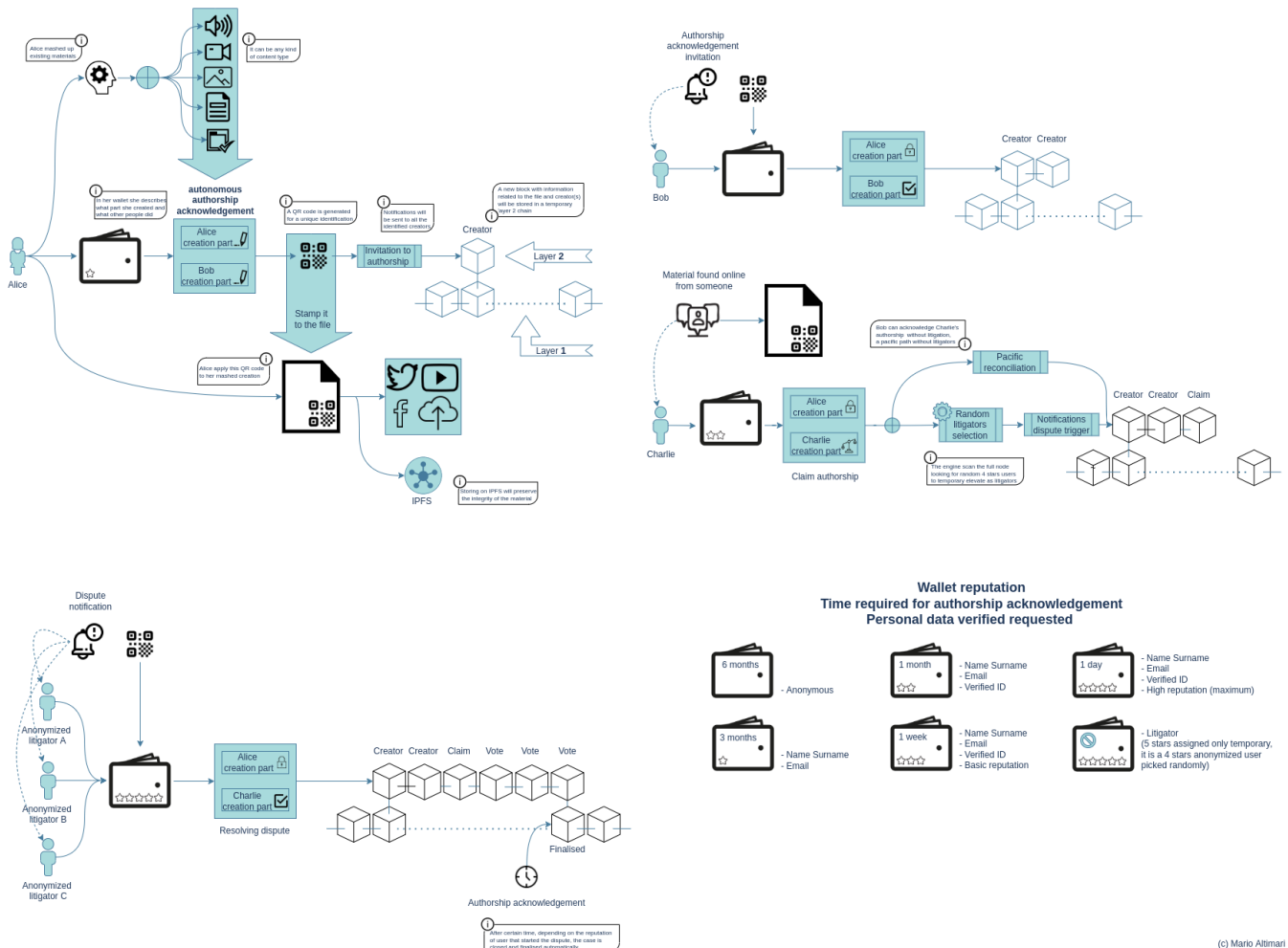
Finally a detailed workflow of how and when layer 2 persists the data in a "temporary immutable" way until the final transaction to layer 1. It also shows the importance of the wallet reputation with different levels of verification, essential for the opera acknowledgement and for the litigators.

POCRE (Proof of Co-Creation) user flow diagram overview



(c) Mario Altamari

POCRE (Proof of Co-Creation) a use case and workflow overview



(c) Mario Altamari

4. Ambition & IMPACT

We will create a product that will change the way digital content is created, managed, and distributed by using blockchain technology rights management protocol linked to social media. The amount of social outreach will add to the awareness and marketing of our project using enhanced mechanisms because of the commercialization opportunities provided by our potential tokenomics model. We can evolve by offering the opportunity to earn tokens for every download on user-generated content creating a token economy and promoting new creations. This also drives ambition to create and has a generative impact on consumption where the most popular artists will receive recognition on social media as well as financial through tokenomics. Even the smaller artists are rewarded for their efforts and all the artists can share their work and grow awareness of the platform, its ownership model, and much more.

Our product meets the following scientific, social, and economic goals defined in this application:

- Easy to use and understand reputation models on blockchain applications, and others by integrating social media to recorded content.
- New ways of monetizing premium-user generated content using blockchains, KYC approaches on blockchains, and applications related to copyrights on user-generated content.

Another social impact is to give the opportunity to trust the origin of an opera and know which other trustable creations the artist did. For example, in the current Ukrainian-Russian war there is a lot of disinformation from both sides. Armies of tiktokers and youtubers generate controversial (when not completely fake) video mashups where it is impossible to understand the origin of the multimedia sources.

POCRE gives a tool to people who want to honestly contribute with real information, not being confused/associated with trolls, because in the list of the authors there are only verifiable people.