

TRACKING OF INTELLECTUAL PROPERTY USING THE BLOCKCHAIN

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ABSTRACT we present a four-phase concept which enables tracking of intellectual property (IP) *persistently* already *during* its development. Managing tracked data using the Blockchain makes it possible to clearly identify the author of certain assets. This fact could be of great interest for an *automated* property right.

CAPTURE

- The initial step for tracking IP is capturing notes
- Our first prototype uses digital pens, which can be used for various notes.
- The writing is sent via bluetooth and recorded as svg path.
- Each user has his own digital pen during whole session.



TRACKING

- Recorded artifacts are supplemented by meta information and aggregated into JSON.
- In the course of processing duplicates are detected and identified at an early stage using text analysis and similarity algorithms and are also included in the standardized JSON.

SUGGESTION

- Based on the writing, which includes keywords recommendations or helpful hints are generated during this phase.
- This is intended to boost the creation of IP at an early stage and possibly bring together already existing IP developments in related subject areas.

STORAGE

- This phase is dedicated to the storage tracked data
- A unique hash (fingerprint) of JSON is created.
- The fingerprint is then embedded on the Blockchain using the *OriginStamp.org* [2] service.
- The JSON is stored centrally in a database and can be accessed by all ecosystem participants.

ORIGIN
STAMP

BENEFITS

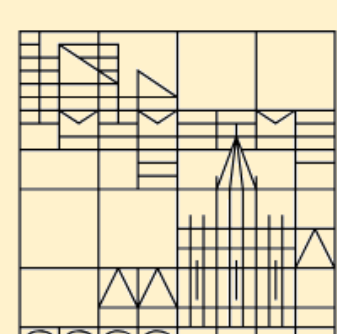
- **Opening early stage** of creative work to competitors increases the innovation potential
- The long-time preserved ideas **enrich the corporate memory** and also enable the automated knowledge-recycling through the recommender system
- IP becomes the **initial point for tracing** supply chain stations – IP often leads to the physical product.

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- [2] Gipp, B., Meuschke, N., & Gernandt, A. "Decentralized trusted timestamping using the crypto currency bitcoin", 2015.