Blockchain
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Blockchain and IP rights – chance or end of IP?

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Key elements of blockchain

Sum of blocks, all having identical DNA

• key allowing changes in the current block

• each change is irreversibly visible in all future blocks and to all key owners
Key elements of blockchain

• manipulation becomes difficult, if not impossible

• decentralized administration

• intermediates not necessary (= financial saving / greater security)

• Elimination of trusted third parties
Example

• I sell my Harley Davidson to my associate

• 1 bitcoin goes from my associate to me

• → block 1: this transaction is added to the block

• (different other transactions are done in this block)
• I pay salary to my associate

• \(\rightarrow\) block 2: this transaction is added to the block

• My associate cannot successfully sue me by stating that I have not paid the salary: payment is visible in the blockchain
The beauty of blockchain

• Each change of block is *irreversibly traced* and thus accessible to all authorized persons

• Result:
  – kind of total control
  – effect of “public register”
  – No need for intermediate (notary, bank, etc.)
  – the “absolute evidence”
Uncertain issues

- Huge (energy and money consuming) IT environment necessary
- Risk of technical breakdowns
- Security threats
- “Untrusted new technology”
- Acceptance by Courts?
Intellectual property

- Monopoly
- Territorially limited
- Revelation (patent, design)
## Contradictions?

<table>
<thead>
<tr>
<th><strong>Blockchain</strong></th>
<th><strong>IP</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not necessarily a monopoly</td>
<td>Monopoly</td>
</tr>
<tr>
<td>Territorially unlimited</td>
<td>Territorially limited (TM, patent, design)</td>
</tr>
<tr>
<td>Decentralized administration, no register</td>
<td>Centralized administration (register)</td>
</tr>
<tr>
<td>No examination</td>
<td>Examination</td>
</tr>
<tr>
<td>Cannot be licenced as such (only for example its code)</td>
<td>Can be licensed as such</td>
</tr>
</tbody>
</table>
Where can blockchain technology render IP redundant?

<table>
<thead>
<tr>
<th>Blockchain can render IP partially redundant</th>
<th>No influence on IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting companies</td>
<td>Examination of register rights (patent, design, trademarks)</td>
</tr>
<tr>
<td>Registers (patent, design, trademarks etc.)</td>
<td>Enforcement</td>
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</tbody>
</table>
Where can blockchain technology assist IP?

• New patent, design and trademark registrations
• Enforcement
• Smart contracts
• Time-stamping, tractability
• Improved databases
• Improved international fillings
Enforcement of IP rights

- Blockchain facilitate evidence

- Tracking allows to detect counterfeit products at an earlier stage
Time-stamping

• Patent / design: revelation in a block = ultimate destruction of novelty (time-stamping)

• Possibility to link encrypted trade secrets to a blockchain (no revelation but proof able time-stamp)

• Trademark holder can continuously add use evidence on a blockchain. Simplifies proof of use when required (to maintain or enforce trademark rights)
**Time-stamp**

- Several services to link a specific revelation to a blockchain already exist (for example notary.bitcoin.com).
- With such services a cryptographic digest of any document can be stored in a blockchain, linking it to the time of submission.
- Munich based Bernstein Technologies GmbH offers a blockchain based solution for IP management.
**Improved databases**

- Possibility of one global decentralised trademark database with instant updates

- Such a database could enable trademark holders to directly register licences or assignments and build the basis for smart contracts

- Direct simple worldwide fee payment with crypto currencies

- Cross border issues
Advantage for IP

- TM: prove of use much easier
- Copy rights: prove of ownership
- Management of license contracts
- Notarization and legalization redundant
- Whole cost intensive IP administration could be revolutionized
- Providing evidence for administrative and Court proceedings
New registrations

• Increasing number of patent and trademark registrations relating to blockchain products and companies

• In November 2017 already 631 patent families (1853 patents) exist worldwide, of which roughly 75% (465 patent families) have already been granted!
Smart contracts

• On 5 October 2015 singer and songwriter Imogen Heap distributed her single “Tiny Human” via blockchain network using smart contracts for the collection of her profits.

• total sales around 133,20 $, 222 sales at 60 cents each. It got more press articles than sales.

• However, such a distribution without music labels and collecting company's will increase and might become ordinary.

• Smart contracts might become also especially useful for licenses.
Conclusion

• IP will definitely not become redundant

• IP administration easier and less costs → IP importance could grow

• Processes will change. Example: Dubai Government plans Real estate register via blockchain
Conclusion

• Example: WIPO trademark database

• Existing IP principles (parameter for infringement etc.) remain the same

• Remembers me somehow 3D-printer discussion, or 25 years ago introduction of the internet

• All in all: changes yes, no revolution!
Thank you !!!