European Copyright, quo vadis?
Impact of Artificial Intelligence on copyright issues:
Criteria for protection

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1. What are we talking about?

**Human intelligence**
- **input**: (information, knowledge, experience, …)
- **human brain**: (including technical help, e.g. computer-aided)
- **output**: … under control of human

**Artificial intelligence**
- **input**: (algorithms)
- **software**: (algorithms)
- **output**: … unpredictable for humans

step 1
- algorithms = *human* built

step 2 et seq.
- algorithms = *machine* built
2. Why legal protection?

Justifications for protection (= legal exclusivity):

• **personality-related** rationale
  → mainly copyright law
  → protection of **creator**
  
  – “AI” step 1 (human built algorithms):
    • software = human created → "work"
    • output = machine built → no “work”
  
  – “AI” step 2 et seq. (machine built algorithms):
    • software = machine built → no “work”
    • output = machine built → no “work”

• **economic** rationale (investment protection)
2. Why legal protection?

Justifications for protection (= legal exclusivity):

- **personality-related rationale**
- **economic rationale** (investment of protection – avoiding “market failure”)
  - mainly industrial property
  - in principle protection of **investor**

  - **“AI” step 1** (human built algorithms):
    - software = human created (“work”) → protection of investor (e.g. work made for hire)
    - output = machine built → investment? – “market failure” without legal exclusivity?
  
  - **“AI” step 2 et seq.** (machine built algorithms):
    - software = machine built → investment? – “market failure” without legal exclusivity?
    - output = machine built → investment? – “market failure” without legal exclusivity?
3. Protection: what kind, of whom, of what?

**human intelligence**
- **input** (information, knowledge, experience, …)
- **human brain** (including technical help, e.g. computer-aided)

**artificial intelligence**
- **input** (software, algorithms)

**copyright → author**
- **output** … (creation, innovation, …)

? copyright? → ? right holder?
4. Alternative approach for protection (if ever)?

**Article 28 TRIPS - Rights Conferred**
1. A patent shall confer on its owner the following exclusive rights:
   (a) …
   (b) where the subject matter of a patent is a process, to prevent third parties not having the owner’s consent from the act of using the process, and from the acts of: using, offering for sale, selling, or importing for these purposes at least the product obtained directly by that process.
2. …

**artificial intelligence input**

**software** (algorithms) **output …**

= process

= “product obtained directly”
5. Consequences – more relevant questions?

human intelligence

input
(information, knowledge, experience, …)

human brain
(including technical help, e.g. computer-aided)

output ...
(creation, innovation, …)

artificial intelligence

input

software
(algorithms)

output ...

→ legal permission to use for purposes of “AI”