2019 Study Question

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Copyright in artificially generated works

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I. Current law and practice

Please answer all questions in Part I on the basis of your Group's current law and practice.

To answer questions 1 to 11, please base your answers on the Working Example in the full text of the Study Guidelines. If you believe that reference to other scenarios/examples is useful, please raise such scenarios/examples and their relevance to the questions presented.

1 **Does your current law / practice contain laws, rules, regulations or case law decisions specifically relating to Copyright and/or Related Rights in artificially-generated works?**

No

Please Explain

Swedish law does not contain laws, rules, regulations or case law decisions specifically relating to Copyright and/or Related Rights in artificially-generated works.

A. Application of general Copyright criteria to artificially-generated works

Authorship

2 **Does your current law / practice require that a work has to be created by an *identified author* (natural or legal person) to be protected by Copyright?**
*** By answering this question, don't take into consideration anonymous works and pseudonym works. Please also note that this question is independent from the question of the rights holder.**

No

Please Explain

No, according to the Swedish Copyright Act (Sw. *Lag (1960:729) om upphovsrätt till litterära och konstnärliga verk*) there is no requirement that a work has to be created by an identified author to be protected by Copyright.

Section 7 paragraph 2 of the Swedish Copyright Act stipulates that if the author cannot be determined and the work has been published, the editor, if he is named, or otherwise the publisher, shall represent the author until the author's name is stated in a new edition or in a notification to the Ministry of Justice. If neither the author nor other right holders of the work can be identified or reached, the work can be classified as anonymous according to Section 16 b of the Swedish Copyright Act. An unidentified natural person can therefore have created a work subject to Copyright protection.

3 **Does your current law / practice require that a work has to be created by a *human* to be protected by Copyright?**
*** Please note that this question is independent from the question of the rights holder.**

Yes

Please Explain

It follows indirectly from the Swedish Copyright Act and related case law that it has to be one or more natural person(s) who has/have created the work in order for the work to be copyrightable. Furthermore, for a work to be protected by Copyright it needs to be original, which strongly implies that the author must be human (cf. question 5). It should also be mentioned that Copyright protection lasts for 70 years after the author's death. This means that e.g. a legal person cannot create a work protected by Copyright.

4 **Could one or more of the natural persons involved in the process of the following Working Examples be qualified as authors of the resulting work in your jurisdiction?**

4.a **The authors of the program or code that defines the AI entities?**
*** As noted in Paragraph 2 of the Discussion developed in the full text of the Study Guidelines, "AI entities" refers to the system(s) that creates the AI-created work and does not refer to a legal or juridical entity.**

Yes

Please Explain

It is possible that the authors of the program or code that defines the AI entities could be granted Copyright protection for the resulting work produced by the AI entity since the program/code itself cannot be an author according to the Swedish Copyright Act. However, this requires that it can be established that the authors' efforts can be traced to the resulting work even though it is the AI entity that ultimately produces the work, i.e. that the work created by the AI entity can be considered a result of the authors' own creative decisions and thus fulfilling the originality requirement (cf. question 5). From a legal point of view, the AI entity would in this case be regarded as a tool with which the human author creates a new work.

4.b **A human who defines the particular goal or objective to be achieved by the AI entities?**

Yes

Please Explain

It cannot be ruled out, but since Copyright provides protection for the form of an expression the answer to this question would be dependent on what type of work the AI entity has produced and to what extent the (human) author's intellectual creation is reflected in the AI-generated work.

4.c **A human who selects the data or the data selection criteria (inputs)?**

No

Please Explain

The work generated from the process of selecting and collecting data can be protected as a copyrighted work, as long as it is the result of the author's free and creative decisions and fulfils the originality requirement (cf. question 5). However, it is not likely that the selection of data input would fulfil the originality requirement in relation to the resulting work produced by an AI entity, since the relationship between the selection of data and the resulting work would be too vague.

4.d **A human who selects a particular artificially-generated work from multiple works generated by the AI entities?**

No

Please Explain

A human who merely selects an already produced work would not fulfil the originality requirement and thus not be granted any ownership or joint ownership to the work created by an AI entity.

4.e **Someone else?**

No

Please Explain

We have not identified any other potential Copyright owners in the Working Example.

Originality

5 **If, in your jurisdiction, originality is a requirement for a work to be protected by Copyright, could an artificially-generated work qualify as an original work in your jurisdiction?**

No

Please Explain

Swedish case law strongly suggests that the older Swedish (national) threshold of originality requirement has been entirely superseded by the EU originality criterion (cf. inter alia the Swedish Patent and Market Court of Appeal's judgement of 12 January 2018 in case PMT 11062-16). Simply put, the EU originality criterion, as developed and defined by the CJEU, now generally applies in Sweden.

Consequently, a work, which is "original in the sense that it is its author's own intellectual creation", is protected as work under Swedish Copyright law (cf. the CJEU in Case C-5/08 (Infopaq), paragraph 37). In Case C-145/10 (Painer) the CJEU has also clarified that an intellectual creation is an author's own if it "reflects the author's personality" (Painer, paragraph 88). That is the case if the author was able to express his/her creative abilities in the production of the work "by making free and creative choices" (Painer, paragraph 89). On the contrary, as emphasized by the CJEU in Cases C-403/08 (Murphy) and C-604/10 (Dataco), the originality criterion is not satisfied when the creation is dictated by "technical considerations, rules or constraints which leave no room for creative freedom" (cf. Murphy, paragraph 98, and Dataco,

paragraph 39).

The EU originality criterion, as developed by the CJEU with references to the author's "intellectual" creation and the author's "personality", strongly implies that originality requires a human author. Accordingly, under Swedish (harmonized) Copyright law, Copyright protection will most likely be denied for artificially-generated works. This is also consistent with earlier Swedish case law, establishing that works created by animals are not Copyright protected. That said, if a human person is directly implicated in the creative process by giving instructions to the AI in order to modify its work and/or by actually modifying the work created by the AI in order to obtain the final work, the final result (work) could most likely be seen as an expression of the human's creative abilities. In such scenario, thus, the originality criterion would most likely be satisfied. However, this degree of human intervention could also mean that the resulting work is not considered to be AI-generated at all.

Supplementary criteria

6 **If there are supplementary or other requirements for a work to be protected by Copyright in your current law / practice, can an artificially-generated work in accordance with the Working Example fulfill them?**

Yes

Please Explain

Two cumulative conditions must be satisfied for the subject matter to be classified as a protected "work" under Swedish (and EU) Copyright law. First, the subject matter must be original in the sense that it is the author's own intellectual creation (cf. question 5 above). Secondly, it is a well-known principle, under Swedish (and EU) Copyright law, that Copyright does not protect ideas but expressions. Accordingly, the subject matter protected by Copyright must be expressed in a manner, which makes it identifiable with sufficient precision and objectivity. According to the CJEU, this principle is crucial to legal certainty in the process of identifying the protected subject matter (cf. the CJEU's judgment of 13 November 2018 in Case C 310/17 (Levola Hengelo), paragraphs 35-41).

These considerations imply that an artificially-generated work could fulfil the supplementary criterion, provided that the work is identifiable with sufficient precision and objectivity.

Original ownership

7 **Assuming that, under your current law / practice, an artificially-generated work is protectable by Copyright, who would be the "first owner" of the Copyright, *i.e.* the person defined by the law as the *original owner* ?**

As stated above (cf. question 3), human authorship (i.e. contribution to a relevant extent of a physical person) is required in order to grant a work Copyright protection. Under the assumption that the work is considered somewhere along the line to have been created by a physical person (see further question 4 above), the original owner will be the author of the work, i.e. the physical person who was sufficiently involved in the creation of the work. If two or more individuals have prepared the work and made equal contributions, joint ownership can be assumed, provided that their contributions cannot be separated as individual works in accordance with Section 6 of the Swedish Copyright Act.

If the work itself does not involve any human intervention at all, Copyright protection would be denied, i.e. there would not be a "first owner" of the Copyright.

8 **Under your current law / practice, could an AI system or machine be qualified as a juridical entity capable of holding Copyright or Related Rights?**

No

Please Explain

No, neither Moral nor Economic Rights can be exercised or held by an AI system or machine.

9 **Does your current law / practice allow non-humans and/or non-juridical entities to hold Copyright?**

No

Please Explain

No, Copyright is basically attached to human authorship. As for non-humans, a juridical person cannot hold any Moral Rights in Copyright, but can exercise the Economic Rights in Copyright if these have been assigned to the juridical person from a natural person. In the case of the creation of software within an employment relationship, the Copyright is automatically transferred to the employer if there is no other contractual arrangement to the contrary (Section 40 a of the Swedish Copyright Act). As regards subjects that are neither human nor juridical entities, these are not recognized as legal subjects that can hold or exercise rights under Swedish law, including Copyright.

Term of protection

10 **Assuming that, under your current law / practice, an artificially-generated work is protectable by Copyright, what is the term of protection?**

Assuming that the AI generated work is protected under the Swedish Copyright Act, an AI generated work is protected by Copyright until the end of the seventieth year after the year in which the author deceased or, in the case that the work has more authors, after the year in which the last surviving author deceased (Sections 43 and 6 of the Swedish Copyright Act).

B. Application of Related Rights criteria to artificially-generated works

11 **Could a work created with the process of the Working Example be protected by any type of Related Rights?**

If YES, please answer the following sub-questions:

Yes

Please Explain

Yes a work created with the process of the Working Example could be protected by Related Rights, see below.

11.a **What type(s) of Related Rights would be applicable?**

A work created with the process of the Working Example could be protected by the following Related Rights according to the Swedish Copyright Act:

- Recording of sounds and moving pictures (Section 46 of the Swedish Copyright Act)
- Database protection (Section 49 of the Swedish Copyright Act) - Sui generis right
- Photographic image (Section 49 a of the Swedish Copyright Act)

11.b **What would be the requirements for protection by Related Rights?**

In general, there are no specific requirements, except for database protection. As regards the latter, the data must be of significant quantity, systematically structured and constitute the result of significant investments.

11.c Who would be the original owner of the Related Rights?

The Related Rights rules in the Swedish Copyright Act do not stipulate any criteria on how a work has been created. Instead, the rules provide an exclusive right for the producer of the sound/video recording, database and photographic picture. Hence, the original owner of the Related Right is the producer of the AI generated work, regardless of the degree of human intervention in the creation of the work.

The producer can be a natural or a legal person.

11.d What would be the term of the protection?

- Recording of sounds and moving pictures – 50 years after the year of the recording (Section 46 paragraph 2 of the Swedish Copyright Act).
- Database protection – 15 years after the year of the creation of the database (Section 49 paragraph 2 of the Swedish Copyright Act).
- Photographic image – 50 years after the year the image was created (Section 49 a paragraph 3 of the Swedish Copyright Act).

II. Policy considerations and proposals for improvements of your Group's current law

12 Could any of the following aspects of your Group's current law or practice relating to artificially-generated works be improved?

12.a Requirements for artificially-generated works to be protected by Copyright and/or Related Rights?

Yes

Please Explain

Since Sweden lacks any explicit laws or practice regarding AI-generated works, such works are most likely not protectable by Copyright (cf. question 5). Therefore, current laws or practices have to be amended if one wants to protect AI-generated work by Copyright and or/or Related Rights.

One way could be to follow the UK model in which the person who has taken the necessary arrangements for the creation of the AI-generated works gets the Copyright, see UK copyright law, Section 9 paragraph 3(3) compared to Section 178 of the UK Copyright, Designs and Patents Act 1988 (CDPA). One should however bear in mind that the Swedish Copyright Act is technology-neutral and a specific regulation for AI-generated works would thus be a deviation of the aforementioned technology-neutrality.

Related Rights, such as the sui generis right for database protection, do not have the same requirement of originality or human authorship, see Section 49 of the Swedish Copyright Act. It might thus be more suitable to protect AI-generated works as Related Rights, wherein the AI-generated works are protected based on the underlying investments similar to the sui generis database protection (cf. question 26).

12.b Ownership of artificially-generated works?

Yes

please explain.

Assuming that the AI-generated work would be protected by Copyright, under current Swedish law, ownership would go to the author (human) whose intellectual creation is reflected in the work generated by an AI.

However, if an AI entity generates a work with only limited or without any human intervention, which does not qualify for Copyright protection or protection as a Related Right under the Swedish Copyright Act (cf. question 11 and 12), it is unclear who the owner of any possible rights related to the AI-generated work would be. Therefore, current laws or practices have to be amended to clarify the ownership of AI-generated works.

A way of solving the ownership question could be to enact the aforementioned UK model in which the person who has taken the necessary arrangements for the creation of the AI-generated works gets the Copyright, even though the AI entity stands for the “creativity” (cf. question 12a and question 19).

Another possible way of solving the ownership question could be to enact a sui generis right/Related Rights, in which the human or legal entity who has made a significant investment in the creation of the AI-generated works by creating the AI entity, gets the ownership as a producer (cf. question 29).

12.c **Term of protection of artificially-generated works?**

Yes

Please Explain

The provision regulating the term of protection is currently tied to the (human) author’s death, which might be difficult to apply to AI-generated works, see Section 43 of the Swedish Copyright Act.

One could also consider to apply a shorter time of protection for AI- generated works, similar to other Related Rights, since AI entities will most likely be able to create works at a very high speed and in great volumes. Having a long protection for such works may thus cause an inflation of IP protection. A term of protection similar to the sui generis right (cf. question 11d) would thus be more applicable to AI-generated works.

13 **Are there any other policy considerations and/or proposals for improvement to your Group's current law falling within the scope of this Study Question?**

Yes

Please Explain

It is important to address the foregoing questions in 12) a-c, with a holistic view, since the questions are highly intertwined. For instance, Copyright ownership is not relevant unless the AI-generated work meets the requirement of originality – which is highly unlikely for an AI-generated work without human intervention, considering the Swedish Copyright Act and EU’s harmonized originality requirement.

III. Proposals for harmonisation

Please consult with relevant in-house / industry members of your Group in responding to Part III.

To answer questions 14 to 32, please base your answers on the Working Example in the full text of the Study Guidelines. If you believe that reference to other scenarios/examples is useful, please explain such scenarios/examples and their relevance to the questions presented.

14 **In your opinion, should Copyright protection and/or Related Rights protection for artificially-generated works be harmonized? For what reasons?**

Yes

For what reasons?
please respond to the following questions without regard to your Group

Yes, a coherent protection of AI-generated works will benefit the internal market of the EU, as well as the global market. Investments, R&D and transactions of AI-generated works will most likely be facilitated and encouraged when companies know that their AI-generated works will be granted protection and managed in a similar way independent of jurisdiction. The harmonization of trade secrets and copyright protection of software in EU serve as two examples in which the cross-border transactions were benefitted from a harmonized protection.

15 **In your opinion, should artificially-generated works be protected by Copyright and/or Related Rights?**

Yes

For what reasons?

AI-generated works differ from the literary and artistic work protected by the Swedish Copyright Act, since AI-generated works will most likely have difficulties meeting the requirement of originality. Furthermore, AI entities will most likely produce work at a much greater speed and volumes compared to humans. It might thus be inappropriate to give AI-generated works the same copyright protection as works generated by humans (cf. question 12c). The technology-neutrality of the Swedish Copyright Act will also be deviated if a certain type of works, such as AI-generated works, is regulated specifically.

It is, however, important to protect the investment in AI-generated works in order to facilitate transactions and to increase cultural diversity by also protecting works created by non-humans, i.e. in this case by AI entities. A possible solution, proposed by the Swedish Working Group would be to include leave the Copyright protection intact and to include a new Related Right for AI-generated works, which would have a more narrow protection and shorter term of protection, compared to Copyright protection (cf. question 27).

A. Copyright protection of artificially-generated works

16 **Should intervention by a human be a condition for Copyright protection of an artificially-generated work?**

Yes

at which step or steps in the Working Example would human intervention be required?

Yes, human creativity should be a prerequisite for Copyright protection. More specifically, the person who translates an idea into a sufficiently precise and identifiable expression should be a human. Accordingly, a human should make the decisions throughout the creation process to determine what the work should e.g. look or sound like. If this requirement is not met, the work should not be considered to reflect a human author’s personality and, hence, Copyright protection should be denied.

However, according to the Swedish Working Group, it is not possible to make a general conclusion regarding at which step or steps in the Working Example human intervention is required in order to meet the requirement of being the person "who translates an idea into a sufficiently precise and identifiable expression". This should be determined on a case-by-case basis, keeping in mind that, depending on the degree of human intervention, the resulting work should potentially not be considered to be AI-generated at all.

17 **Should originality be a condition for Copyright protection of an artificially-generated work?**

Yes

Please Explain

Yes, originality should be a fundamental requirement for Copyright protection of any work.

18 **What other requirements, if any, should be conditions for Copyright protection of an artificially-generated work?**

The basic conditions for Copyright protection should not differ between different types of works. Seeing that the subject matter protected by Copyright must, under existing Swedish and EU law, be expressed in a manner which makes it identifiable with sufficient precision and objectivity, this supplementary condition should be satisfied also for an artificially-generated work to be classified as protected by Copyright.

19 **Who should be the original owner of the Copyright on an artificially-generated work?**

As a general rule, the human(s) translating the idea into a sufficiently precise and identifiable expression, should be the original owner(s) of Copyright of an artificially-generated work (cf. question 16 above), provided that the originality requirement is met.

Even if a human translating the idea into sufficiently precise and identifiable expression cannot be identified, original ownership could be based on the UK approach according to which the person by whom the arrangements necessary for the creation of the literary, dramatic, musical or artistic work are undertaken shall be considered the author of the (computer-generated) work (cf. question 12a), provided that AI-generated works are to be protected by Copyright and not (sui generis) Related Rights. In such case, little or no human intervention within the creation process would be required in order to protect an artificially-generated work by Copyright, i.e. all steps of the Working Example would be covered by Copyright protection. The Swedish Working Group is of the opinion that the UK model should not apply to works where there is no human intervention, since this would be a deviation from the originality requirement. Instead, the Swedish Working Group proposes to use the UK model as inspiration for the creation of a new Related Right (cf. questions 26-27).

20 **What should be the term of Copyright protection for an artificially-generated work?**

Assuming that AI generated works would be protected by Copyright and the original owner would be considered a human (cf. question 19), the term should be in accordance with the terms for non-artificially-generated works pursuant to the Swedish Copyright Act.

21 **Should Economic Rights differ between artificially-generated works and regular works?**

No

Please Explain

No, if an artificially-generated work would be protected by Copyright, the original owner of the Copyright should be granted the same Economic Rights as in case of ordinary Copyright works.

22 **Considering existing exceptions to Copyright, should any exceptions apply differently to artificially-generated works versus other works?**

No

Please Explain

If the original owner would be considered a human who has intervened in the creation of the works to the extent that the human's intellectual creation is reflected in the work (cf. question 19), existing exceptions to Copyright should apply.

23 **Should there be any new exceptions to Copyright specifically applicable to artificially-generated works?**

Yes

Please Explain

The Swedish Working Group is of the opinion that, ideally, Copyright protection should be left intact and apply the same way independent of work. However, taking into consideration the huge amount of data required to train AI, there might be a need to allow reproductions necessary to the performance of machine learning (based on the fair use-exception as known from the common law legal system). In order to prevent a vast exploitation of Copyright protected works, however, such reproduction exception could be limited to e.g. scientific or research purposes.

24 **Moral Rights**

24.a **Should moral rights be recognized in artificially-generated works?**

Yes

Please Explain

Moral Rights should be relevant for AI-generated works when a human has intervened in the creation of the works to the extent that the human's intellectual creation is reflected in the works, i.e. when the work is protected by Copyright. Similarly, for works that fall within the scope of any of the existing Related Rights, the applicable Moral Rights should apply in the same way for works created by an AI entity.

However, if a new Related Right, specific for AI-generated works, would be included, one should only acknowledge limited Moral Rights (cf. question 28).

24.b **If yes, what prerogatives should the moral rights include (for example, the right to claim authorship of the work, the right to object to any distortion, mutilation or other modification of the work)?**

If AI-generated works should be protected by Copyright, the Moral Rights should apply to the same extent as for any other Copyright works.

24.c **If yes, who should exercise the prerogatives of moral rights?**

The original owner of the work since an AI entity does not have the capacity to hold rights.

B. Related Rights protection of artificially-generated works

25 **Considering existing Related Rights, should any Related Rights apply to artificially-generated works?**

Yes

Please Explain

Yes, the following existing Related Rights should apply to an AI-generated work.

- Recording of sounds and moving pictures (Section 46 of the Swedish Copyright Act).
- Database protection (Section 49 of the Swedish Copyright Act). (Sui generis right)
- Photographic image (Section 49a of the Swedish Copyright Act).

26 **Should there be any new Related Rights specifically applicable to artificially-generated works?**

Yes

Please Explain

The Swedish Working Group proposes to include a new Related Right for AI-generated works, when created with no or minimal human intervention and where the resulting work does not qualify for any of the already existing Related Rights.

27 **If an existing or new Related Right is applicable to artificially-generated works, what requirements should be conditions for protection?**

The conditions for protection under existing Related Rights should remain unchanged.

The conditions for applying a new Related Right would be that the work in question falls within the category of literary, dramatic, musical or artistic work and that the work reaches a certain threshold of "originality" similar to the requirement set for Copyright protection. However, no human intervention would be required (i.e. it would not need to reflect the (human) author's personality) The exact scope and detailed requirements for protection under this new Related Right will have to be clarified through judicial precedents.

28 **Which Related Rights' economic rights and moral rights should apply to artificially-generated works?**

The existing or new Related Rights protection should include the Economic Rights, such as copying and communication to the public.

Regarding Moral Rights, the Swedish Working Group proposes that these should only apply to AI-generated works with regards to the right of attribution and the right to have a work published anonymously or pseudonymously but not to the integrity right. The latter because integrity and respect does not apply to AI entities, i.e. the honor of the AI entity cannot be disrespected.

29 **Who should be the original owner of the Related Right?**

The person (legal or natural) making the necessary arrangements/investments in relation to the creation of the work should be the original owner of the related right.

30 **What should be the term of protection of the Related Right?**

To the extent, existing Related Rights apply, the current terms should apply (cf. question 11d)

For a new Related Right, a term corresponding to 15 years (cf. the term for database protection) seems reasonable. However, the Swedish Working Group notes that a shorter term of protection for AI-generated works can create incentives for people behind the AI entity to lie about the source of the work. This can in turn create procedural problems and raise evidence related issues during a judicial proceeding.

31 **Please comment on any additional issues concerning any aspect of Copyright protection and Related Rights protection for artificially-generated works you consider relevant to this Study Question.**

Any legislative consideration on AI should also consider the integrity of the personal data subjects for any information handled by the AI. Hence, the data privacy regulation (GDPR) should be considered alongside intellectual property regulation in the AI context.

With regards to exceptions to the proposed new Related Right, the Swedish Working Group is of the opinion that the same exceptions that apply in the Database directive (Directive 96/9/EC) should also apply in relation to the new Related Right. These exceptions are stipulated in Article 9 of the directive and include lawful use without the authorization of the creator/maker for private purposes, illustration for teaching or scientific research and use for the purposes of public security or an administrative or judicial procedure.

32 **Please indicate which industry sector views provided by in-house counsel are included in your Group's answers to Part III.**

The Swedish Working Group has received the following input from the industry:

- As long as a human has written the AI algorithm, which e.g. has created a song, the individual behind the algorithm must obtain rights protection, even if the AI made the song without human intervention. This is because a successful AI should require as little human intervention as possible, which is the whole purpose of using AI.
- 15 years is a reasonable term of protection, due to the extensive technical elements, which makes the works more similar to inventions rather than artwork created by humans.
- Potential problem with a term of protection of 15 years for something created by an AI compared to the same thing created by a human is that there is a risk that the people behind the AI-created song claim that it is made by a human. Who has the burden of proof in this case and what evidence should be provided?
- Due to the large technical elements involved when it comes to AI, one should possibly look more at how patent law is designed rather than copyright law and take input from that area.