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

Authorship

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.

Yes

Please Explain

German Copyright Law is based on the idea of intellectual property of the author in the works created by him and has a strong link to the author’s personality rights.[1] Sect. 7 of the *German Act on Copyright and Related Rights* ("German Copyright Act") provides that Copyright originates in the creator of the work ("Schöpferprinzip"). Therefore, in principle, an *identifiable* author is a prerequisite for Copyright protection.

The answer to this question is based on the understanding of the German working group that "identified author" refers to an author that is identifiable (i.e., could be identified in theory). However, should the question be understood as whether an author needs to identify himself to receive Copyright protection the answer of the German working group would be "No". Under German Copyright Law, the author does not have to be named in a formal act. A work is protected even if the author of a work cannot be *identified* by anyone. For example, orphan works are protected by Copyright. According to sect. 61 German Copyright Act and following, certain works available in public collections, such as libraries, whose author cannot be identified despite diligent search, receive limited Copyright protection.

Footnotes


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

There is no provision or decision specifically dealing with artificially-generated works. Both the European Parliament [1] and the European Commission[2] have recognized that artificially-generated works raise questions that "call for specific consideration". To date, however, there has been no legislative proposal.

Footnotes


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
Sect. 2 para. 2 German Copyright Act requires a work to be the “author’s own intellectual creation”. According to the German case law and literature, this excludes creations by animals, machines and corporations from Copyright protection. Only works that originate in the human mind can be considered to fulfill the requirement of an “author’s own intellectual creation”. Copyrightable works can thus only be created by humans.

Footnotes

2. See the explanatory memorandum to the German Copyright Act: BT-Drucks. IV/270, p. 40.
3. This result is less clear in patent law as there are no specific provisions on human involvement in the inventive process. Both the German and the European Patent Office nonetheless require a natural person to be named as the inventor to comply with the registration requirement in sect. 37 German Patent Act or Art. 81 European Patent Treaty respectively.

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?

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

If one were to assume that the use of artificial intelligence excludes the attribution of the result to a natural person, the result of AI-supported work creation would not qualify as a work at all. On the basis of previous case law on the Copyright protection of computer programs, however, it is conceivable that the use of AI could be seen as a tool used by a natural person with the result that he or she is to be regarded as the author. The answer to the question whether one or more of the natural persons involved in the process of the Working Example could be qualified as authors of the resulting work according to German (and European) Copyright law depends on how crucial the human contribution is for the final work. More precisely, it is decisive whether – on the basis of an overall evaluation of the concrete case – the final work can still sufficiently be assigned to the natural person(s).

That being said, it has not been decided by courts so far if according to sect. 2 para. 2 German Copyright Act the creative achievement of the programmer extends to an AI work. The Court of Appeal Karlsruhe had to decide if Copyright protection is granted to a graphical user interface (GUI) created by a software program. The court concluded that Copyright is granted for the software as such (sect. 69a German Copyright Act) but not the GUI. Rather, the GUI needed to meet on its own the requirements for protection, e.g. as a technical drawing. When applying the finding of the court to the design of the system described in the Working Example Step 1 the creation of the AI could be sufficient to qualify the programmer as author of the AI work, but only if the programmer provides sufficiently specific (creative) input into the appearance of the work of the AI.

Footnotes

2. Court of Appeal (Oberlandesgericht) Karlsruhe, dec. of 14-04-2010, docket-no. 6 U 46/09, GRUR-RR 2010, 234.

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

No

Please Explain
According to German case law, a mere idea by a person is not sufficient to consider that person as an author. This is different if a computer is only used as a tool like a brush or chisel. If a human uses the AI entity as a tool for his own creation, they could be an author. Defining the particular goal or objective to be achieved by the AI is like having an idea of what should be created and not part of the creation as such.

Footnotes


A human who selects the data or the data selection criteria (inputs)?

No

Please Explain

In Copyright law, a mere preparatory act is not sufficient to regard the human acting in case 2a as an author. It would only be different if the contribution were so significant that the AI can only be regarded as a tool for the human’s own creation.

The mere selection of data (Case 2a, sub-case 1), for instance, the decision which previous works will be fed to the AI, is not sufficient if all further decisions in the creative process are made by the AI, respectively. Consequently, if the AI sets the selection criteria based on the data fed into it by the natural person and eventually creates the work, the natural person cannot be qualified as the author of the final work.

If, in addition to the selection of the input data (in our example selection of the previous works), also the selection criteria are determined by the natural person who fed the data into the AI system or by any other natural person (Case 2a, Subclause 2), it is still critical whether this is not a mere preparatory action of each of the natural persons being involved as long as the creation of the work is essentially done by the AI. This shall generally apply even when the creation is founded on the basis of the data fed to the AI system and by applying the given criteria.

On the other hand, the question of authorship would have to be assessed differently if the selection of the data and the concrete determination of the selection criteria in themselves made such a significant contribution that the AI only formally “executes commands”, which on the basis of the pre-settings chosen by the natural person(s) lead to the final work (almost) without further creative intervention.

To avoid misunderstandings, it should be pointed out, however, that the human selection of data as such may be protected as a database work according to sect. 4 German Copyright Act, which implements the EU Database Directive 96/9/EC. The standard for this is mere individuality of the human data selection, as outlined in Art. 3 EU Database Directive 96/9/EC.

If, for example, in order for an AI to be able to paint a beautiful Picasso painting, a very specific individual selection of real Picasso paintings is fed into the AI, this should be protected by Copyright pursuant to sect. 4 German Copyright Act – if said selection is made by a human being.

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

No

Please Explain

The protectability in the scenario where a natural person selects a particular artificially-generated work from multiple works generated by the AI entities (Case 3a) depends on whether the mere actions of finding and selecting works is regarded as a creative achievement. Under German Law, in accordance with the relevant case law of the European Court of Justice, a specific "selection and arrangement" of the components of a work can justify the eligibility for protection of the final work. However, if already completed AI-generated works are solely elected, there should be no influence on the creativity process and, therefore, no protection. In this case, all essential decisions in the creative process are solely made by technical means (here the AI), so that a use of the AI as a sole tool for a creative human achievement can no longer be assumed. According to the current German understanding, the human intervention described in case 3a should, therefore, be qualified similarly to the work of a curator in a museum and, thus, does not qualify as a creative achievement justifying Copyright.

This may be different, however, in case the human selection of AI works produces an entire collection of AI works in the form of a database. Databases, whose data is individually selected, are protected by Copyright according to sect. 4 German Copyright Act, implementing Art. 3 EU Database Directive 96/6/EC.
Footnotes


3. ^ In patent law, on the other hand, it is generally irrelevant who makes an invention, since the existence of an inventive step can be determined objectively. Thus it is not excluded from the outset to consider a computer-generated invention as patentable as long as a human selects it and then applies for a patent.

Someone else?

Yes

Please Explain

Yes, if in Case 2a the activities from 4b (i.e. definition of the particular goal or objective to be achieved) and from 4c (i.e. the selection of the inputs) coincide in one person and this person thereby exercises a creative influence on the AI generated work.

Moreover, in case 3a (selection from artificially-generated works) the question might be answered differently if the natural person evaluates AI works, these evaluations are returned to the AI as input and the AI changes its programming on this basis in order to produce better AI works (“supervised learning”).

Originality

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?

Yes

Please Explain

a) Originality requirement under German Copyright law

Yes, under German Copyright law originality is a requirement.

Sect. 2 para. 1 and para. 2 German Copyright Act define the requirements for Copyright protected works. In particular sect. 2 para. 2 German Copyright Act states that works are only protected as far as they are “the author's own intellectual creation”.

This also needs to be put into context with EU law. Generally speaking, the subject matter (work) protected by Copyright has been harmonized by EU law. This was last emphasised by the CJEU in the “Levola” case in 2018. The CJEU held that the concept of a “work” must normally be given an autonomous and uniform interpretation throughout the European Union. [1]

To be protected as a work, the CJEU has put up the following two requirements:

(1) The work must be original in the sense that it is the author's own intellectual creation.

(2) It must be an expression of the author's own intellectual creation, whatever the mode or form of its expression may be. But the work must be expressed in a manner which makes it identifiable with sufficient precision and objectivity, even though that expression is not necessarily in permanent form. [2]

This requirement, “the author's own intellectual creation”, includes the concept of “originality”. According to the CJEU, only original creations can be considered as an own intellectual creation: “The subject matter concerned must be original in the sense that it is the author's own intellectual creation.” [3] Sometimes, “originality” is substituted by the term “individuality” [4].
If “originality” is defined as an “own intellectual creation”, this is usually interpreted to exclude non-human creations. Otherwise, one could not speak of an “own” (intellectual) creation. In particular, this is meant to exclude creations by machines or by computer programmes from Copyright protection. So, works created by AI could also not be seen as “own” intellectual creations if a human input was missing. There is, however, no German case law which would confirm this for AI or for other non-human creations in general.

b) Application of the originality requirement under the German Copyright Act to the Working Example:

- artificially-generated works cumulatively containing Steps 1, 2a and 3a could qualify as an original work as the human steering and controlling influence on the resulting work is high and present at all decisive stages of the creation of a work using AI;

- artificially-generated works cumulatively containing Steps 1, 2b and 3b would not qualify as an original work as the work is a product of an algorithm and the steering influence of the human author on the resulting work is too low;

- artificially-generated works cumulatively containing Steps 1, 2b and 3a would not qualify as an original work as the final selection of the work by the human author according to Step 3 cannot compensate for the lack of steering influence of the human author in creating the selected work;

- artificially-generated works cumulatively containing Steps 1, 2a and 3b could qualify as an original work due to the selection of the data: the higher the steering influence of the human author on the work by selecting the input data the higher the chances for the result to qualify as an original work.

Footnotes


2. ^ CJEU, dec. of 13-11-2018, docket-no. C-310/17, Levola Hengelo BV/Smilde Foods BV (at no. 36 et seq.).


6. ^ Ory/Sorge NJW 2019, 710, 711; Lauber-Rönsberg GRUR 2019, 244, 246; Peifer, FS Michel Walter, 2018, 222, 226 et seq.

Supplementary criteria

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

The crucial criterion is the steering and controlling influence of the human author on the resulting work. As far as this criterion is fulfilled according to the answer to question 5 above, any supplementary criteria are not specifically problematic for artificially-generated works to be considered as Copyright protected works.

The assignment or attribution of artificially-generated work in cases where different humans are involved in Steps 1-3 of the Working
Example might cause follow up problems but would not as such render a work not protected by Copyright.

**Original ownership**

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?

Under applicable law, the first owner of a Copyright is the creator of the work embodying the Copyright (sect. 7 German Copyright Act). Only a human being can be a creator. This is true as well in case of software protected by Copyright, as sect. 69b German Copyright Act (based upon Art. 2 para. 3 of the *Software Directive 2009/24/EC*) is interpreted as only assigning to the employer the economic rights in software generated by an employee in the execution of his duties or following the instructions given by his employer.

Therefore, the following human beings in the Working Example would be considered as first owner:

- Case 1: the human selecting the particular goal or objective (eventually jointly with the creator of the AI software);
- Case 2a: the human being selecting the data or data selection criteria (eventually jointly with the creator of the AI software);
- Case 2b: the creator of the AI software;
- Case 3a: the human being selecting a work from the works generated by the AI (eventually jointly with the creator of the AI software);
- Case 3b: the creator of the AI software.

In European law, it is still not finally clear if a judicial entity would be capable of being the initial Copyright owner. At least in the film area it is, however, clear, that EU law follows the principle of only humans as initial Copyright holders. Furthermore, it may be argued that the entire EU concept (including beyond films) also relies on human beings as the sole initial owner of Copyright.

**Footnotes**

1. ^ *BGH, dec. of 18-09-2014, docket-no. I ZR 76/13, GRUR 2015, 258, 261 – “CT-Paradies” (at no. 41).*

**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

The answer is “no” with regard to (genuine) Copyright. In principle, the Copyright as such may never be transferred by the creator as the initial owner. It may only be inherited after the death of the author. Such an heir can in theory also be a judicial entity, but this is practically never the case in Germany.

Concerning Related Rights, some Related Rights can see initial ownership with judicial entities, in particular those Related Rights, who reward an investment (e.g. phonogram producer, film producer, broadcaster). Other Related Rights see a human being as the initial owner.
(for example Related Right of the performing artist). But under German law, in principle, all Related Rights are transferable to third parties by contract (exceptions for certain Related Rights apply, e.g. for the Related Right for simple photographs).

It is another question, however, if under the applicable laws in Germany an AI system or machine could be qualified as a judicial entity as such. We think that neither law nor practice presently accepts an AI system or machine as a juridical entity being capable of holding Copyright or Related Rights.

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

No

Please Explain

No – see above at question no. 8.

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?

The term of protection for a Copyright under German law is 70 years, beginning at the end of the year when the author died (in the case of several co-authors, the death of the last author – sects. 64, 65, 69 German Copyright Act; in case of anonymous and pseudonymous works beginning at the end of the year of the date of first publication, sect. 66 German 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, please see below at sub-questions no. 11.a to 11.d.

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

Contrary to the protection of works, Related Rights require a lower degree of originality or have no originality requirement at all. Thus protection under the following Related Rights may be conceivable:

- Sect. 70 German Copyright Act (authors of scientific editions): Sect. 70 German Copyright Act grants a Related Right to the author of an edition of works or non-copyrightable texts if the edition is the result of scientifically organized activity. Extending this protection to AI-generated scientific editions, would, however, require a rather broad interpretation of sect. 70, which presently is understood as applying only to human editors/compilers of such scientific editions [1].
Sect. 72 German Copyright Act (photographs): Sect. 72 German Copyright Act grants a Related Right for “photographs and products manufactured in a similar manner to photographs”.

Sect. 85 German Copyright Act (producers of audio recordings): Sect. 85 German Copyright Act provides the producer of audio recordings with certain exclusive economic rights in order to protect his economic, organizational and technical effort in making the recording. The right is granted irrespective of the Copyright protection of the sounds recorded and the recording technology used.

Sect. 87a German Copyright Act (makers of a database): As set out in the Database Directive 96/9/EC, sect. 87a German Copyright Act gives a sui generis right to the maker of a database. This is supposed to protect his investment in the creation of the database, specifically the obtaining, verification or presentation of the contents. No protection is provided for investments in the generation of data.

Sect. 87f German Copyright Act (publishers of newspapers and magazines): Sect. 87f German Copyright Act grants the publisher of a press product the exclusive right of making the press product or parts thereof available to the public. The protected subject matter is not the individual literary work or photograph, but the organizational, economic and technical responsibility for the production of an editorial press publication.

Sect. 94 German Copyright Act (producers of films): Sect. 94 German Copyright Act grants a Related Right to the “film producer”, the individual or legal entity having incurred the economic, organizational, legal and technical effort in making and publishing a cinematographic work.

Sect. 95 German Copyright Act (producers of moving pictures): Sect. 95 German Copyright Act extends the protection of cinematographic works to mere sequences of images (“Laufbilder”) which differ from cinematographic works only in that they are no personal intellectual creations.

Footnotes


3. ^ CJEU, dec. of 09-11-2004, docket-no. C-203/02, GRUR 2005, 244 – “BHB-Pferdewetten”.

What would be the requirements for protection by Related Rights?

As a preliminary note, it has to be stressed that most of the Related Rights set forth above in a. are granted to the ‘person or entity' having incurred the economic, organizational, legal and technical effort in making the respective work. As AI creating works may require such an effort, Related Right protection seems generally justified and as the right tool to avoid protection gaps. Genuine Copyright protection for solely AI created works seems out of reach even if AI requires a substantial economic risk (see answers 2 to 5 above).

aa) Related Rights for photographs

According to sect. 72 German Copyright Act, “photographs and products manufactured in a similar manner to photographs” shall be protected mutatis mutandis to photographic works.

It is, however, an open question in German law whether photos generated without any human input will qualify for protection under this Related Right. The District Court of Hamburg has denied protection for photos without human input such as radar photos or automatic satellite photos. Other courts have held that a minimal human input is required for protection, but have granted protection to camera photos, radar
According to a third opinion, protection under this Related Right is possible even when the photographs are merely generated by a computer without any human input. Consequently, Related Right protection for solely AI generated photographs only seems possible following the latter opinion.

In this context it has to be noted that “photos” which have not been generated at least like a photograph – i.e. using optical means as technology in generating the picture – will not qualify as photographs in the sense of sect. 72 German Copyright Act. Therefore, an AI generating its own computer pictures e.g. from a data base containing the original photographs which serve as a style sheet for the AI, would not fall within the scope of protection of sect. 72.

bb) Related Right for producers of audio recordings

According to sect. 85 German Copyright Act, the producer of an audio recording enjoys an exclusive Related Right. The requirements are low. It is merely necessary to produce an audio recording, which contains hearable sound material. This may also be computer generated material. It further needs to be pointed out that the initial owner of the Related Right can also be a non-natural person, as the Related Right is initially owned by the person who undertook the organizational, technological and economic risk of producing the sound recording. This can be a company or any other non-natural person.

In consequence, it seems possible that a hearable sound recorded on a data carrier qualifies for protection by this Related Right, even if the sound was generated solely by AI.

c) Related Right for makers of a database

The data selected under Step 2 as well as (depending on their nature or structure) the new works generated by the AI per Step 3 of the Working Example could be protected by a database right according to sect. 87a et seq. German Copyright Act. The requirements for protection are as follows:

- The collection of data must consist of independent elements arranged in a systematic or methodical way;
- the independent elements arranged must be accessible by electronic or other means; and
- obtaining, verifying and/or presenting of such database elements did require a substantial qualitative or quantitative investment.

These criteria for protection as a database result from EU-wide harmonization through the EU Database Directive 96/9/EC.

(i) In the Working Example Step 2 probably fulfils the requirement for database protection as a Related Right under German law. The data collected under Step 2 seem to contain independent elements that are also arranged in a systematic or methodical way in order to make them readable. The different elements in the database are also accessible by electronic means. It also seems likely that such a collection of data requires a substantial investment. In the context of this questionnaire the question would rather be to what extent the owner of such Related Right might extend its right to the works finally generated by the AI entity which had previously used such database as “training material”. The Related Right for producers of databases grants the owner, however, only the right to enjoin third parties from using or copying substantial parts of such database (and therefore would entitle him to cash in on any such use) but does not grant any rights to the results achieved by a third party using the content of such database.

(ii) In the Working Example, also the series of works generated by AI itself in Step 3 might qualify as a database, provided that they meet the above criteria. The mere fact that such database has been created by AI would not disallow protection: in order to gain the Related Right for makers of a database, it is not a requirement that the database is produced with human input. This is because the database right merely protects the investment into the data collection, arrangement and presentation – and not any human input. Ownership of the Related Right for databases may be initially with non-natural persons. In conclusion, also databases produced solely by AI may be protected by this Related Right.

dd) Publishers of newspapers and magazines

As this Related Right applies only to the individual or entity having incurred the economic, organizational and technical effort in publishing such press product, it seems possible that a mere AI generated press publication may be protected by this neighboring right.

Further, however, the rationale for protection is only in a first step an economic one. The reason behind such protection is that any democracy is heavily relying upon a free and independent press as source of information for all participants to enable them to take a meaningful part in the process of democratic decision-making and voting. Any economic incentive which would favour the autonomous generation of facts – without any substantial selection process driven by human beings – over the traditional approach of press journalism would further incentivize the generation of autonomous/fictitious “facts” and would run counter to the intention of the law. We therefore do not think that under current law it is self-evident that publishers of AI-generated press products will qualify for protection under this Related Right.

e) Producers of films
Films produced using AI might be protected by the Related Right (sect. 94 German Copyright Act), the person or legal entity incurring the economic, organizational and technical risks and efforts of such film production being the owner of such Related Right. This could also be an AI, in case it organizes the (human) creators to make a film work.

ff) Related Right for sequences of images not protected as film works ("moving pictures")

According to sect. 95 German Copyright Act, protection as a Related Right may be provided to sequences of images (with or without sound), which are not protected as film works (so-called moving pictures). It is the prevailing opinion that sequences of images generated automatically may also enjoy protection under this Related Right, so the Related Right may apply to sequences of images generated solely by AI as well.[8]

Footnotes


6. Lauber-Rönsberg GRUR 2019, 244, 248; Ory/Sorge NJW 2019, 710, 711.


8. Lauber-Rönsberg GRUR 2019, 244, 248.

Who would be the original owner of the Related Rights?

Producers of photographs (sect. 72 German Copyright Act): The photographer of the picture. But it is an open question under German law if this requires at least some human input (see above b. aa)).

Producers of audio recordings (sect. 85 German Copyright Act): Original owner of this Related Right is the “producer” which is the individual or legal entity having incurred the economic, organizational and technical effort in making the recording, which does not necessarily have to be a human being, but in any case a legal entity capable of holding any such right.

Makers of a database (sect. 87a German Copyright Act): Pursuant to sect. 87a para. 2 German Copyright Act, the original owner of this Related Right is the individual/legal entity having (i) taken the initiative in generating the database and (ii) made the investment in creating such database. A mere financial investor therefore would not qualify as original owner.

Publishers of press products (sect. 87f German Copyright Act): Original owner of this Related Right is the “publisher” of such newspaper/magazine which is the individual or legal entity having incurred the economic, organizational and technical effort in making and publishing such press product.

Producers of films (sect. 94 German Copyright Act): Original owner of this Related Right is the “film producer” which is the individual or legal entity having incurred the economic, organizational, legal and technical effort in making and publishing a cinematographic work.

Producers of moving pictures (sects. 94, 95 German Copyright Act): Sect. 95 German Copyright Act extends the protection of cinematographic works to sequences of images (“Laufbilder”) which differ from cinematographic works only in that they are not personal intellectual creations. The original owner again is the individual or legal entity having incurred the economic, organizational, legal and technical effort in making and publishing such sequences.

What would be the term of the protection?
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

The requirements for artificially-generated works should be further analysed and differentiated by analysing the steering influence of the human author(s) on the resulting work using a differentiation as done in the Working Example.

Further clarification regarding the identification of the one human author or the many human authors involved in the Steps 1 to 3 of the Working Example and their respective rights should be aimed for: Are the human authors to be considered co-authors if at each of the three steps different humans influence the resulting work, even if they did not have a specific and sole idea of the resulting work? Who is the author if the human influence according to Steps 1-3 is only considered to be a revision or a continuation of the work? When is the human influence according to each of the Steps 1-3 considered to be an independent Copyright protected work?

With regard to Related Rights, a clarification would be welcomed that all Related Rights which merely protect investment are open for artificially-generated works. This is in particular the case in Germany for the Related Right of photographs; here, it is an open question if photographs taken by AI without any human input are protected under the Related Right of sect. 72 German Copyright Act.

For the database right (sect. 87a German Copyright Act), for the Related Right of producers of audio recordings (sect. 85 German Copyright Act) and for the producer of sequences of images (moving pictures, sect. 95 German Copyright Act) the principal protection of artificially-generated works was so far not contested in the published case law in Germany. Notably, the acceptance of AI-generated works in the context of moving images (sect. 95 German Copyright Act) results in an obvious discrepancy compared to the rather human-centred majority view concerning the protection of (individual) photographs under sect. 72 German Copyright Act. It would be highly recommendable to harmonize – in one way or the other – this divergence in Related Right protection in order to avoid disincentives.

12.b Ownership of artificially-generated works?

Yes
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

Harmonization for Copyright protection and/or Related Rights protection for artificially-generated works is desirable as an AI entity is not necessarily restricted to one jurisdiction. On the one hand, an AI located on a server in one jurisdiction can be accessed from other jurisdictions. On the other hand, it is also possible to spread an AI entity across several servers in different jurisdictions. To the extent that any Copyright exists, which may differ from territory to territory, the scope, duration and ownership of the Copyright may vary, which could create significant difficulties between different jurisdictions, for example if in one jurisdiction the original owner is different from the original owner in another jurisdiction. The same is true for Related Rights.

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

Yes

For what reasons?

The German group is of the following opinion:

- Artificially-generated works should be protected by Copyright in case there is sufficient creative human input into the generation of the work.
- Artificially-generated works should not be protected by Copyright in case there is no human input, but such works are mere AI creations.
- However, in such scenarios, Related Right protection should be available. But this should only be the case if the reason for Related Right protection applies to AI created works also. For example, in case a Related Right protection stems from protecting the investment, such Related Right protection should also be available to mere AI works. Such a Related Right could be owned by the AI investor, which may also be a judicial entity.

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?

Human intervention would be required in case 2a preferably in combination with case 3a. The selection of the data or the data selection criteria has a direct impact on the works created by the AI entities. The impact is even stronger if the same human or humans select works created by the AI based on their original intention when selecting the data. For example if a human selects all poems by Rainer Maria Rilke in his late years in Switzerland as input into the AI entity and then selects which of the poems created by the AI entity has the highest likelihood to the original works. In this case the human has a creative part in the results achieved.

In Step 1 the programmer should only get Copyright for the software as such as he develops the tools for the creation but is not involved in the creative process.

If in Step 2 case 2a the activities from 4b and 4c are undertaken by the same human and this human thereby has a direct creative influence on the works, the human uses the AI entity more like a tool for his own creation and could be considered an author.

The practical challenge will lie in the fact that the natural person(s) bear(s) the burden of presentation and proof for the alleged authorship. It will often not be possible to determine how large the human portion in a creation is and what portion was produced by AI without a closer knowledge of the exact process of creation of the respective work. It can, therefore, be assumed that the AI participation will often not be
disclosed in order to avoid such difficulties. In practice, for factual reasons, it will thus be difficult to distinguish between the cases discussed below.

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

Yes

Please Explain

The differentiation of the originality criterion could help to decide which artificially-generated work can be attributed to a human author and thus should be protected by Copyright.

In Germany, it is the prevailing opinion that Copyright draws its justification from two different lines of reasoning [1]:

- Firstly, Copyright is justified under a natural right aspect as a human right. The creator needs protection for his creative efforts, and he must be in a position to control the use.

- Secondly, there is a more economic justification of Copyright. This utilitarian line of reasoning relies on economically rewarding the author for his creativity and to further motivate him to create. Copyright is not seen as something natural to be with the creator, but it is provided to the creator because it is useful to reward and motivate him.

For German Copyright law, both aspects are relevant, although in the last years the utilitarian aspects have gained weight. But the natural right aspect still plays a considerable role, which is expressed in the German Copyright Act for example through the recognition of moral rights such as the right to first publication, the right to be named and the right to integrity in favour of the author (sects. 12, 13, 14 German Copyright Act).

The protection of the economic aspects could also be achieved merely through Related Rights, which protect the investment into the final result. Against this background, it seems necessary to differentiate between Copyright (which requires a sufficient creative human input) and Related Rights (who can protect mere investment and protect mere AI results).

Footnotes


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

The crucial criterion should remain the steering and controlling influence of the human author on the resulting work, cf. answer to question 5 above.

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

No changes should be made to the basic concept of Copyright laws requiring that only a human being qualifies as original owner of a Copyright. To the extent works are generated by AI without substantial creative contributions by human beings, such works will not be subject to genuine Copyright protection.

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


The term of protection in general should be shorter than that of works made traditionally, taking into account (i) the respective contributions of human beings and of the AI in such work and (ii) the reduction in costs by using the AI in generating such works, both to safeguard the rights of traditional authors from being replaced by the cheaper labour of AI.

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

No

Please Explain

It would be advisable to encounter any problems that might arise via the legal instruments of exceptions generally or specifically applicable to artificially-generated works (question 23).

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

No

Please Explain

Existing exceptions to Copyright should apply in the same way to artificially-generated works. We do not see a reason to not apply any of the existing exceptions and limitations under German law to artificially-generated works, if the pre-conditions for Copyright protection are met. The existing exceptions and limitations to Copyright in German law derive their justification from balancing the interests of creators and users. Exceptions and limitations do not relate to the process of how a work is created.

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

No

Please Explain

See above answer to question 22.

24 Moral Rights

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

Yes

Please Explain

According to the current German understanding, AI-related works can only be protected if they can be attributed to the human author on the basis of a personal intellectual achievement. Against this background, a differentiation between moral rights and economic rights does not appear to be necessary; rather, moral rights should also be attributed to the identifiable human author of an artificially-generated work.

On the other hand, if purely computer-generated works were made accessible for protection, as in British law, only economic rights should be granted.
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)?

See above answer a. In case an AI generated work is Copyright protected (because of a human input) the moral rights provided should apply in the same way as to other works. This is in particular true for the right to claim authorship and the right to object to any distortion, mutilation or other modification of the work.

If yes, who should exercise the prerogatives of moral rights?

The (human) creator within the AI generated work should be in a position to exercise the moral rights.

B. Related Rights protection of artificially-generated works

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

Yes

Please Explain

a) Yes, the following existing Related Rights should apply to artificially generated works, provided that a certain degree of human intervention is given:

- Sect. 72 German Copyright Act (photographs and products manufactured in a similar manner to photographs)
- Sect. 85 German Copyright Act (producers of audio recordings)
- Sect. 87a German Copyright Act (makers of a database)
- Sect. 94 German Copyright Act (producers of films)
- Sect. 95 German Copyright Act (producers of moving images)

b) No, the following Related Rights should not apply to artificially generated works:

- Sect. 70 German Copyright Act (authors of scientific editions) – this right has been granted to protect scientific personnel to incentivize their scientific work, it is not meant as a mere protection of investment of time, effort and money in the creation of such scientific edition.
- Sect. 87f German Copyright Act (publishers of newspapers and magazines), for the reasons stated above at question no. 11.b, sub dd).

Should there be any new Related Rights specifically applicable to artificially-generated works?
According to the traditional understanding, Related Rights are granted to a certain ‘person or entity’ only under the conditions described above. They are extended on AI-generated works only under certain conditions, at best. However, a work solely generated by an AI-entity would not qualify for protection under such Related Rights.

The Copyright protection of a solely AI-generated work in itself is — de lege lata in Germany — not possible either, as Copyright protection presupposes originality, which can only be present in a human being. Besides, the concept of an AI-entity as creator seems inconceivable, as a real person is missing as accountable and suitable right holder.

Under the present legal regime in Germany, the possible protection of AI-generated works is tied to pre-existing works and contributions and/or the processes preceding or following the AI creation, but not to the actual act of creation and the new work. Thus, it is ignored that a creation takes place, that a new work is created, even if no human being is involved at the decisive moment, i.e. the causal chain to a real person is interrupted at the decisive moment. Hence, the AI-entity goes beyond the possibilities and functionalities of conventional hardware, software and database use, precisely because it can take an additional, creative step.

Therefore, the law should reflect and regulate this reality. A new, harmonized Related Right (or sui generis right) could avoid gaps in protection and possibly unjustified unequal treatment, taking into account the special features of AI-generated works and avoiding distortions of competition and circumvention strategies to obtain legal protection.

Thus, introducing a new Related Right (or a right sui generis) for artificially-generated works could be a reasonable approach to protect and reward the economic, legal, organizational and technical effort necessary for the creation, implementation, training and maintenance of an AI-entity and its “creations”.

Moreover, this new Related Right (or sui generis right) could encourage the parties involved (programmers, developers, etc.) to invest in AI technology: By being able to grant licenses for the use of the works created with the respective AI algorithm/system, they would be able to refund (parts of) their investments. Profiting from financial safety, the AI industry would thus be fostered.

Further advantages could also be expected regarding legal certainty: As shown above, the conditions for Copyright protection of AI-generated works have to be verified on a case-to-case-basis, leading to uncertainties as to whether a certain work is protected by Copyright or not. Such uncertainties may result in refraining from investing in new AI technologies. Thus, a new Related Right could bring the required clarity for investors.

However, a new Related Right could also overcompensate the necessary investment: There may be cases where only low investments and minimal training is necessary, e.g. when a programme only needs to be ‘fed’ with data but completes the training-process by itself. Also, as explained under 11 b) dd), data selected under Step 2 of the Working Example could already be protected by a database right, sect. 87a et seq. German Copyright Act. In this case, assigning additional protection by way of a new Related Right could lead to overcompensation.

Although it generally might be recommendable to introduce a new Related Right (or sui generis right) for AI-generated works, the risk of overcompensation has to be excluded in order to maintain a fair balance of the interests of AI-programmers and the users of works.

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

**a) New Related Right**

The Related Right or sui generis right could be designed similarly to the Related Right of the producer of films pursuant to sec. 94 German Copyright Act, since a film also requires (pre-existing) works and contributions of several participants in order to create something new.

It should also be noted that quick and inexpensive creations “on stock” could become possible. In order to avoid widespread monopolizations and the discrimination of traditional (authorial and non-authorial) works, it is to be discussed whether proof of AI-creation, other formalities or even actual use/exploitation should be required, or whether the right should arise ipso iure in any case. One could also consider compulsory licences (in return for fair compensation), faster exhaustion or a public interest exception with regard to fundamental AI creations.

**b) Existing Related Rights**

The existing Related Rights should not be interpreted or amended in such a way that additional conditions have to be met for the protection of artificially-generated works. Rather, the existing Related Rights protection should, where necessary, be interpreted to cover artificially-generated works as well, provided such works meet the general requirements for such Related Right. In such interpretation, however, it should always be taken into account that to the extent the rationale for such Related Right was not merely the protection of an economic risk or investment but to incentivize the creation of works of art and/or the protection of the humans engaging in such creation, such interpretation must not result in marginalizing human creators and economically benefitting AI-driven creations.
On the other hand, to the extent a Related Right is intended to merely protect the investment into producing a specific result, for example a sound recording or a moving image, said investment should be protected under such Related Right irrespective of whether the specific work/result has been generated by AI or not.

The following existing Related Rights warrant special mention in this context:

(i) The database right (sects. 87a et seq. German Copyright Act) of the maker of a database should be clarified in view of the influence of data on effectively putting AI to work. As highlighted by the Working Example, AI is only enabled to create “new works” under Step 2 of the Working Example by using data, potentially from a specific database. Clean and validated data stored in databases seem to be – at least at the present stage of development of AI technology – of fundamental influence to enable AI to create “new works”. Therefore it might be discussed – to incentivize development of AI – to grant a statutory right of use (against a fair compensation of the maker of the database) to anyone who needs such data to train their AI. This should not, however, result in makers of such databases being granted “reach-through claims” directed to any results the trained AI subsequently generates.

(ii) For the Related Rights mentioned above at question 25, sub b) – which in our opinion should not be used to protect AI-generated works, it is advisable to clearly exclude AI-generated works from the scope of protection.

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<tr>
<th>Question</th>
<th>Which Related Rights’ economic rights and moral rights should apply to artificially-generated works?</th>
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<tbody>
<tr>
<td>28</td>
<td>a) Economic rights granted under any one of the Related Rights specified above should apply irrespective of whether the work has been generated by AI or not.</td>
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<td></td>
<td>b) Moral rights in our opinion should only apply to AI-generated works to the extent they are resulting from human input. If this is the case, all Moral Rights should apply which would be granted under the German Copyright Act for the contribution to such work.</td>
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<th>Question</th>
<th>Who should be the original owner of the Related Right?</th>
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<td>29</td>
<td>The original owner of the Related Right in regard to AI works should be the person/entity who meets the requirements for protection as presently stipulated in the German Copyright Act and as detailed above at question 11.c; therefore, in principle the law must not be changed to address the issue of AI works.</td>
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<th>Question</th>
<th>What should be the term of protection of the Related Right?</th>
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<tr>
<td>30</td>
<td>The term of protection in general should be shorter than that of traditionally made works, taking into account (i) the respective contributions of human beings and of the AI in the work and (ii) the reduction in costs by using the AI in generating the works, both to safeguard the rights of traditional authors from being replaced by the cheaper labour of AI. In case of Related Rights this is even more important than in case of Copyright, as the rationale for most Related Rights is less the creative process and rather the economic investment the owner has made. By granting AI works the same protection, the foreseeable consequence would be that all traditional producers will be driven out of the market rather quickly.</td>
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<tr>
<th>Question</th>
<th>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.</th>
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<tr>
<td>31</td>
<td>As stated above in our answer to question 15, the German group is of the following opinion:</td>
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<td>• Merely AI created works do not deserve Copyright protection because of the lack of human input.</td>
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<td></td>
<td>• Nevertheless, Related Right protection should be available for merely AI created works, in case the Related Right protects the investment into creating the work. Also, investment into AI seems worth protection in general. The German group is even of the opinion that a new Related Right should be introduced to cover the work categories which are so far not covered by Related Rights,</td>
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for example solely AI produced works of art.

- Such a concept (exclusion of Copyright protection for solely AI created works, but Related Right protection) may, however, produce some issues in practice. Due to the longer (term) and more extensive (for example moral rights) protection of the genuine Copyright in comparison to the Related Right, there is an incentive for the AI producer to incorrectly state that there was human input into the AI produced work in order to achieve Copyright protection. In practice, it will be very difficult to prove that there was no human input.

Against this background, it may be useful to think about a stricter regulation against lying about the (human) author of a work. For example, wrongly stating a human author could be made a criminal offense in Copyright law or could result in other legal consequences. General criminal law (such as fraud) or unfair competition rules may not seem sufficient to tackle this specific Copyright problem.

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

a) Specific industry sector views by in-house legal counsel included in the Group’s answers:

- life sciences: creation of and treatment with medical devices, pharmaceuticals, electrophysiology, transplants and implants;

- e-health services: providing information and advice to physicians and patients using IT systems

b) Specific industry sector views by legal counsel/attorney included in the Group’s answers:

- none