

WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI)

Second Session

DRAFT ISSUES PAPER ON INTELLECTUAL PROPERTY POLICY AND ARTIFICIAL INTELLIGENCE

prepared by the WIPO Secretariat

INTRODUCTION

1. Artificial intelligence (AI) has emerged as a general-purpose technology with widespread applications throughout the economy and society. It is already having, and is likely to have increasingly in the future, a significant impact on the creation, production and distribution of economic and cultural goods and services. As such, AI intersects with intellectual property (IP) policy at a number of different points, since one of the main aims of IP policy is to stimulate innovation and creativity in the economic and cultural systems.

2. As policy makers start to decipher the wide-ranging impacts of AI, the World Intellectual Property Organization (WIPO) has started to engage on the aspects of AI that are specific to IP. There are several threads to this engagement, notably:

- (a) AI in IP Administration. AI applications are being increasingly deployed in the administration of applications for IP protection. WIPO Translate and WIPO Brand Image Search, which use AI-based applications for automated translation and image recognition, are two examples of such AI applications. Several IP Offices around the world have developed and deployed other AI applications. In May 2018, WIPO convened a meeting to discuss these AI applications and to foster the exchange of information and the sharing of

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such applications.¹ The Organization will continue to use its convening power and position as the international organization responsible for IP policy to continue this dialogue and exchange.

(b) IP and AI Strategy Clearing House. AI has become a strategic capability for many governments across the globe. Strategies for the development of AI capacity and AI regulatory measures have been adopted with increasing frequency. The Organization has been encouraged by its Member States to collate the main government instruments of relevance to AI and IP with the aid of the Member States. To this end, a dedicated website will be published shortly that seeks to link to these various resources in a manner that facilitates information sharing.

(c) IP Policy. The third thread is an open and inclusive process aimed at developing a list of the main questions and issues that are arising for IP policy as a consequence of the advent of AI as an increasingly widely used general-purpose technology. For this purpose, a Conversation was organized at WIPO in September 2019 with the participation of Member States and representatives of the commercial, research and non-governmental sectors.² At the conclusion of the Conversation, a plan for the continuation of discussions by moving to a more structured dialogue was agreed in outline. The first step in the plan is for the WIPO Secretariat to develop a draft list of issues that might provide the basis for a shared understanding of the main questions that need to be discussed or addressed in relation to IP policy and AI.

3. The present paper constitutes the draft prepared by the WIPO Secretariat of issues arising for IP policy in relation to AI. The draft is being made available for comments by all interested parties, from the government and non-government sectors, including Member States and their agencies, commercial actors, research institutions, universities, professional and non-governmental organizations and individuals. All interested parties are invited to submit their comments to ai2ip@wipo.int by February 14, 2020. Comments are requested on the correct identification of issues and if there are any missing issues in order to formulate a shared understanding of the main questions to be discussed. Answers to the identified questions are not required at this stage. Submissions may cover one, more than one, or all issues. All comments will be published on the WIPO website.

4. Following the closure of the comment period, the WIPO Secretariat will revise the Issues Paper in the light of comments received. The revised Issues Paper will then form the basis of the Second Session of the WIPO Conversation on IP and AI, structured in accordance with the Issues Paper, which will be held in May 2020.

5. The issues identified for discussion are divided into the following areas:

- (a) How is AI defined?
- (b) Does AI require a new type sui generis of IP, or can it be covered adequately within the existing protection system?
- (c) AI & Unfair Competition Law
- (d) AI & Patents
- (e) AI & Copyright

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Kommentiert [A1]: DEU points out that the German Parliament (Deutscher Bundestag) has set up a commission that is to work out proposals for the legal regulation of AI by summer 2020:
<http://dip21.bundestag.de/dip21/btd/19/029/1902978.pdf>

Kommentiert [A2]: In particular, DEU suggests a glossary of key terms (e.g. "AI inventions", AI-generated invention", "AI-assisted invention", AI application") for the purpose of this questionnaire. A common understanding of these key terms is necessary. Otherwise, the answers by member states will not be sufficiently clear. It might be useful to refer to definitions that have already been agreed in the context of standardisation work (e.g. ISO), if they are deemed appropriate for the purpose of this questionnaire.

Also, a more detailed characterization of problems would allow a better understanding of the questions with regard to specific challenges addressed. The diverse techniques covered under the umbrella term "AI" should be considered separately, taking into account their differences (term of human input, importance of data and other resources involved). The applicability of the existing IP framework to AI as a tool and its constituting elements needs to be examined as well.

Kommentiert [A3]: DEU considers that this is an important preliminary question. These aspects should first be discussed openly in order to avoid that the view on AI is narrowed from the outset by the requirements of existing property rights.

Kommentiert [A4]: DEU proposes that protection via Competition Law should be considered: It provides a more flexible regime in a dynamic environment.

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¹ A summary of the meeting is available at https://www.wipo.int/meetings/en/doc_details.jsp?doc_id=407578. The Index of AI initiatives in IP offices is available at WIPO's dedicated website to AI and IP <https://www.wipo.int/ai>.

² A summary of the Conversation is available at https://www.wipo.int/meetings/en/doc_details.jsp?doc_id=459091.

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- (f) [AI & Data](#)
- (g) [AI & Designs](#)
- (h) [AI & Technology Gap and Capacity Building](#)
- (i) [AI & Accountability for IP Administrative Decisions](#)

PATENTS

Issue 1: Inventorship and Ownership

6. In most cases, AI is a tool that assists inventors in the invention process or constitutes a feature of an invention. In these respects, AI does not differ radically from other computer-assisted inventions. However, it would now seem clear that inventions can be autonomously generated by AI, and there are several reported cases of applications for patent protection in which the applicant has named an AI application as the inventor.

7. **In the case of inventions autonomously generated by AI:**

(i) Should the law permit or require that the AI application be named as the inventor or should it be required that a human being be named as the inventor? In the event that a human inventor is required to be named, should the law give indications of the way in which the human inventor should be determined, or should this decision be left to private arrangements, such as corporate policy, with the possibility of judicial review by appeal in accordance with existing laws concerning disputes over inventorship?

(ii) The inventorship issue also raises the question of who should be recorded as the owner of a patent involving an AI application. Do specific legal provisions need to be introduced to govern the ownership of autonomously generated AI inventions, or should ownership follow from inventorship and any relevant private arrangements, such as corporate policy, concerning attribution of inventorship and ownership?

(iii) Should the law exclude from the availability of patent protection any invention that has been generated autonomously by an AI application? See also Issue 2, below.

(iv) [If patent protection is granted to inventions that were generated autonomously by an AI application, how can IP Offices cope with the likely surge in patent applications worldwide generated by AI?](#)

(iii)(v) [What is the policy justification for providing patent protection to inventions that are generated by AI considering that underlying AI can itself be subject to patent protection?](#)

Issue 2: Patentable Subject Matter and Patentability Guidelines

8. **Computer-assisted inventions and their treatment under patent laws have been the subject of lengthy discussions in many countries around the world. In the case of AI-generated or -assisted inventions:**

(i) Should the law exclude from patent eligibility inventions that are autonomously generated by an AI application? See also Issue 1(iii), above.

(ii) Should specific provisions be introduced for inventions assisted by AI or should such inventions be treated in the same way as other computer-assisted inventions?

Kommentiert [A5]: DEU: A sound understanding is needed of how AI can produce inventions autonomously and in what way AI-generated inventions differ from AI-assisted inventions (when humans use AI as a tool to invent).

Also, a fundamental preliminary question is missing: "How can the authorities identify an autonomously AI generated or AI assisted invention without (mandatory or voluntary) information by the applicant?" At present, the application procedure of national offices does not provide that a corresponding information has to be submitted. This information is indispensable for any AI specific regulation.

Kommentiert [A6]: Paragraph 8 uses the terms 'computer-assisted inventions', 'inventions assisted by AI' and 'inventions autonomously generated by AI' without explaining or properly delineating between these notions. This causes confusion. The following three categories should be distinguished: (i) AI-generated inventions (where AI acts autonomously without human intervention); (ii) AI-assisted inventions (where humans use AI as a tool to invent), and (iii) AI-implemented inventions (where AI is implemented as part of the invention). In addition, the question of patentability of AI as a tool (including patentability of computer programs) and jurisdictional differences in this regard should be examined.

Kommentiert [A7]: DEU suggests to address this question in a more general manner. The question is not only relevant in the context of "Patentable Subject Matter and Patentability Guidelines" but also to "Novelty", "Inventive Step" etc.

(iii) Do amendments need to be introduced in patent examination guidelines for AI-assisted inventions? If so, please identify which parts or provisions of patent examination guidelines need to be reviewed.

Issue 3a: Person skilled in the art

- (i) What are the issues that AI-assisted or AI-generated inventions means for the definition person skilled in the relevant art to which the invention belongs?
- (ii) Should the standard of a person skilled in the art be maintained where the invention is autonomously generated by an AI application or should consideration be given to replacing the person by an algorithm trained with data from a designated field of art?
- (iii) What implications will having an AI replacing a person skilled in the art have on the determination of the prior art base?

Issue 3: Inventive Step or Non-Obviousness

9. A condition of patentability is that the invention involves an inventive step or be non-obvious. The standard applied for assessing non-obviousness is whether the invention would be obvious to a person skilled in the relevant art to which the invention belongs.

(i) In the context of AI inventions, what art does the standard refer to? Should the art be the field of technology of the product or service that emerges as the invention from the AI application?

~~(ii)(i) Should the standard of a person skilled in the art be maintained where the invention is autonomously generated by an AI application or should consideration be given to replacing the person by an algorithm trained with data from a designated field of art?~~

~~(iii)(i) What implications will having an AI replacing a person skilled in the art have on the determination of the prior art base?~~

~~(iv)(ii) Should AI-generated content qualify as prior art?~~

Issue 4: Disclosure

10. A fundamental goal of the patent system is to disclose technology so that, in the course of time, the public domain may be enriched and a systematic record of humanity's technology is available and accessible. Patent laws require that the disclosure of an invention be sufficient to enable a person skilled in the relevant art to reproduce the invention.

(i) What are the issues that AI-assisted or AI-generated inventions present for the disclosure requirement, e.g. regarding cases of a Black Box scenario?

(ii) In the case of machine learning, where the algorithm changes over time with access to data, is the disclosure of the initial algorithm sufficient?

(iii) Would a system of deposit for algorithms, similar to the deposit of microorganisms, be useful?

(iv) How should data used to train an algorithm be treated for the purposes of disclosure? Should the data used to train an algorithm be disclosed or described in the patent application?

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Kommentiert [A8]: DEU: It is too early to ask this question now. We need to have an understanding of the AI related questions first.

Kommentiert [A9]: DEU proposes to add an extra issue relating to "person skilled in the art". A broad-based discussion, starting with more general questions (similar to issue 4 "Disclosure") could be helpful to get the general idea. In particular this should not be limited to "Inventive Step or Non-Obviousness"

Kommentiert [A10]: The same categories should be distinguished as in Issue 2.

Kommentiert [A11]: DEU suggest to address the issue of "black box"- machine learning explicitly.

On a more general note, the question should be asked, which function the disclosure requirement should have with regard to invention autonomously generated by AI. If the purpose is to exclude such inventions from patentability, this might not be appropriate. The patent system has never required to disclose how an invention has been made; a patent has only to disclose the technical solution in a way, that it can be reproduced by a person skilled in the art.

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- (v) Should the human expertise used to select data and to train the algorithm be required to be disclosed?

Issue 5: General Policy Considerations for the Patent System

11. A fundamental objective of the patent system is to encourage the investment of human and financial resources and the taking of risk in generating inventions that may contribute positively to the welfare of society. As such, the patent system is a fundamental component of innovation policy more generally. Does the advent of inventions autonomously generated by AI applications call for a re-assessment of the relevance of the patent incentive to AI-generated inventions. Specifically,

(i) Are there seen or unforeseen consequences of AI related patents? Or is there a hierarchy of social policies that needs to be envisaged that would promote the preservation of the patent system and the respect for human invention over the encouragement of innovation in AI, or vice versa?

(+)(ii) Should consideration be given to a sui generis system of IP rights for AI-generated inventions in order to adjust innovation incentives for AI?

(+)(iii) Is it too early to consider these questions because the impact of AI on both science and technology is still unfolding at a rapid rate and there is, at this stage, insufficient understanding of that impact or of what policy measures, if any, might be appropriate in the circumstances?

COPYRIGHT AND RELATED RIGHTS

Issue 6: Authorship and Ownership

12. AI applications are capable of producing literary and artistic works autonomously. This capacity raises major policy questions for the copyright system, which has always been intimately associated with the human creative spirit and with respect and reward for, and the encouragement of, the expression of human creativity. The policy positions adopted in relation to the attribution of copyright to AI-generated works will go to the heart of the social purpose for which the copyright system exists. If AI-generated works were excluded from eligibility for copyright protection, the copyright system would be seen as an instrument for encouraging and favoring the dignity of human creativity over machine creativity. If copyright protection were accorded to AI-generated works, the copyright system would tend to be seen as an instrument favoring the availability for the consumer of the largest number of creative works and of placing an equal value on human and machine creativity. Specifically,

(i) In which branches or sub-markets of existing copyright protection does artificial intelligence currently play a relevant role? For which other industries or sub-sectors is it likely that artificial intelligence will be used in the foreseeable future? Are there areas where artificial intelligence is currently not being used because there is no protection system?

(+)(ii) Should copyright be attributed to original literary and artistic works that are autonomously generated by AI or should a human creator be required?

(+)(iii) In the event copyright can be attributed to AI-generated works, in whom should the copyright vest? Should consideration be given to according a legal personality to an AI application where it creates original works autonomously, so that the copyright would vest in the personality and the personality could be governed and sold in a manner similar to a corporation?

Kommentiert [A12]: DEU suggests also for the patent system to ask broader general policy questions exactly as it is foreseen in the section "Copyright and related rights". The same issues arise for the interface between patents and AI. Therefore, the insertion of the following question is suggested (see below).

Kommentiert [A13]: DEU suggests creating a better factual basis. Copyright protection is based on two ideas: First, the protection of the author's personal right. This question should not play an important role in this context, because AI as such does not have a personality. The second reason for copyright protection is market failure: the exclusive right is intended to provide an incentive to create creative works that would otherwise not be created. Now it seems that AI has developed rapidly even without a protection system. This could indicate that a protection system is not necessary. These are factual questions that should be clarified in advance of a theoretical debate.

Kommentiert [A14]: A weakness of the existing copyright system is the lack of differentiation: all sectors and markets are more or less treated equally with regard to exclusive rights (and more or less also with regard to terms of protection). A differentiation essentially only takes place at the level of exceptions and limitations, especially with regard to access rights. If a protection system for AI is considered at all, differentiation between sectors may be required.

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~~(iii)~~(iv) Should a separate sui generis system of protection (for example, one offering a reduced term of protection and other limitations, or one treating AI-generated works as performances) be envisaged for original literary and artistic works autonomously generated by AI?

Issue 7: Infringement and Exceptions

13. An AI application can produce creative works by learning from data with AI techniques such as machine learning. The data used for training the AI application may represent creative works that are subject to copyright (see also Issue 10). A number of issues arise in this regard, specifically,

- (i) Should the use of the data subsisting in copyright works without authorization for machine learning constitute an infringement of copyright? If not, should an explicit exception be made under copyright law or other relevant laws for the use of such data to train AI applications?
- (ii) If the use of the data subsisting in copyright works without authorization for machine learning is considered to constitute an infringement of copyright, what would be the impact on the development of AI and on the free flow of data to improve innovation in AI?
- (iii) If the use of the data subsisting in copyright works without authorization for machine learning is considered to constitute an infringement of copyright, should an exception be made for at least certain acts for limited purposes, such as the use in non-commercial user-generated works or the use for research?
- (iv) If the use of the data subsisting of copyright works without authorization for machine learning is considered to constitute an infringement of copyright, how would existing exceptions for text and data mining interact with such infringement?
- (v) Would any policy intervention be necessary to facilitate licensing if the unauthorized use of data subsisting in copyright works for machine learning were to be considered an infringement of copyright?
- (vi) How would the unauthorized use of data subsisting in copyright works for machine learning be detected and enforced, in particular when a large number of copyright works are created by AI?

Kommentiert [A15]: DEU points out that these questions have been provisionally answered at European level by Articles 3 and 4 of the DIRECTIVE (EU) 2019/790 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC.

Issue 8: Deep Fakes

14. The technology for deep fakes, or the generation of simulated likenesses of persons and their attributes, such as voice and appearance, exists and is being deployed. Considerable controversy surrounds deep fakes, especially when they have been created without the authorization of a person depicted in the deep fake and when the representation creates actions or attributes views that are not authentic. Some call for the use of deep fake technology to be specifically banned or limited. Others point to the possibility of creating audiovisual works that might allow the deployment of popular or famous performers after their demise in a continuing manner; indeed, it might be possible for a person to authorize such use.

15. Should the copyright system take cognizance of deep fakes and, specifically,

- (i) Since deep fakes are created on the basis of data that may be the subject of copyright, to whom should the copyright in a deep fake belong? Should there be a system of equitable remuneration for persons whose likenesses and "performances" are used in a deep fake?

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Issue 9: General Policy Issues

16. Comments and suggestions identifying any other issues related to the interface between copyright and AI are welcome. Specifically,

- (i) Are there seen or unforeseen consequences of copyright on bias in AI applications? Or is there a hierarchy of social policies that needs to be envisaged that would promote the preservation of the copyright system and the dignity of human creation over the encouragement of innovation in AI, or vice versa?

DATA

17. Data are produced in increasingly abundant quantities, for a vast range of purposes, and by a multiplicity of devices and activities commonly used or undertaken throughout the whole fabric of contemporary society and the economy, such as computing systems, digital communication devices, production and manufacturing plants, transportation vehicles and systems, surveillance and security systems, sales and distribution systems, research experiments and activities, and so on.

18. Data are a critical component of AI since recent AI applications rely upon machine learning techniques that use data for training and validation. Data are an essential element in the creation of value by AI and are, thus, potentially economically valuable. Comments on appropriate access to data protected by copyright used for training AI models should be included in Issue 7 above.

19. Since data are generated by such a vast and diverse range of devices and activities, it is difficult to envisage a comprehensive single policy framework for data. There are multiple frameworks that have a potential application to data, depending on the interest or value that it is sought to regulate. These include, for example, the protection of privacy, the avoidance of the publication of defamatory material, the avoidance of the abuse of market power or the regulation of competition, the preservation of the security of certain classes of sensitive data or the suppression of data that are false and misleading to consumers.

20. The present exercise is directed only at data from the perspective of the policies that underlie the existence of IP, notably, the appropriate recognition of authorship or inventorship, the promotion of innovation and creativity, and the assurance of fair market competition.

21. The classical IP system may be considered already to afford certain types of protection to data. Data that represent inventions that are new, non-obvious and useful are protected by patents. Data that represent independently created industrial designs that are new or original are likewise protected, as are data that represent original literary or artistic works. Data that are confidential, or have some business or technological value and are maintained as confidential by their possessors, are protected against certain acts by certain persons, for example, against unauthorized disclosure by an employee or research contractor or against theft through a cyber intrusion.

22. The selection or arrangement of data may also constitute intellectual creations and be subject to IP protection and some jurisdictions have a sui generis database right for the protection of the investment made in compiling a database. On the other hand, copyright protection is not extended to the data contained in a compilation itself, even if the compilations constitute copyrightable intellectual creations.

23. The general question that arises for the purposes of the present exercise is whether IP policy should go further than the classical system and create new rights in data in response to the new significance that data have assumed as a critical component of AI. The reasons for considering such further action would include the encouragement of the development of new

Kommentiert [A16]: DEU emphasizes that when regulating or non-regulating data, the issues of personal data protection must be taken into account. In this respect, the General Data Protection Regulation GDPR has now set new standards at EU level. With the broad definition of personal data in the GDPR, a distinction between nonpersonal and personal data is problematic. Quite often private users are "producers" of the data raw material, especially with their connected devices. Data analytics can de-anonymize previously anonymized personal data.

Kommentiert [A17]: DEU points out that this fact could be a clear indication that there is no need for an intellectual property right for data, because there are apparently sufficient incentives to generate a large amount of data.

Kommentiert [A18]: DEU emphasizes that trade secrets law can play a vital role in striking a balance between the interest of companies in protecting their technical know-how and business information and the legitimate interests of third parties in having access to certain data.

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and beneficial classes of data; the appropriate allocation of value to the various actors in relation to data, notably, data subjects, data producers and data users; and the assurance of fair market competition against acts or behavior deemed inimical to fair competition.

Issue 10: Further Rights in Relation to Data

I. Existing Rights

(i) Are there existing IP rights in data and / or databases or rights with similar effect?

II. New IP Rights

(ii) Should IP policy consider the creation of new IP rights in relation to data / or databases? Or are current IP rights, unfair competition laws and similar protection regimes, contractual arrangements and technological measures sufficient to protect data? Or do contractual agreements and technological measures already lead today to a deficit of fair access rights in data stocks in the public interest and in the legitimate private interest?

(iii) If new IP rights were to be considered for data, what types of data (e.g. personal, non-personal, machine generated, specific sectors, mode of definition - content / file / data carriers -, input for AI / output of AI) would be the subject of protection?

(iv) If new IP rights were to be considered for data, what would be the policy reasons for considering the creation of any such rights?

(v) If new IP rights were to be considered for data, what IP rights would be appropriate, exclusive rights or rights of remuneration or both?

(vi) Would any new rights be based on the inherent qualities of data (such as its commercial value) or on protection against certain forms of competition or activity in relation to certain classes of data that are deemed to be inappropriate or unfair, or on both?

(vii) How

(viii) If new IP rights were to be considered for data, how would any such rights affect the innovation in the AI area and the free flow of data that may be necessary for the improvement of AI, science, technology or business applications of AI?

(ix) How would any new IP rights affect or interact with other policy frameworks in relation to data, such as privacy or security?

(x) How would any new IP rights be effectively enforced?

(xi) If there are no plans for new IP rights, should the framework of or are current IP rights, unfair competition laws, including trade secrets law, and similar protection regimes, contractual arrangements and technological measures sufficient to protect data?

current IP rights, unfair competition law and similar protection regimes, contractual arrangements and technological measures be amended in favor of a stronger economic protection of data?

Kommentiert [A19]: "The discussion on 'who owns the data' runs the risk of ignoring the preliminary question of whether there is a justification for recognizing ownership in data. The frequently stated economic value of data does not provide such justification. Quite the contrary, data as information goods are non-rival and, therefore, will not be exhausted by their use. This means that social welfare will in principle be maximized by guaranteeing full access to data. This explains why unrestricted data access should be considered the default rule, while introduction of exclusive rights is in need of a special justification." Josef Drexler, Data Access and Control in the Era of Connected Devices, Study on Behalf of the European Consumer Organisation BEUC, page 3; see https://www.beuc.eu/publications/beuc-x-2018-121_data_access_and_control_in_the_area_of_connected_devices.pdf

Kommentiert [A20]: Comment: this question may be already covered by Questions iii,v and ix.

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[\(x\) If new IP rights were to be considered for data, which exceptions and limitations should be introduced?](#)

[III. Existing Access Rights](#)

[\(xi\) What access rights to third-party data exist in your legal system?](#)

[IV. New Access Rights](#)

[\(xii\) Should further access rights \(instead of a new IP right\) to third party data be introduced? Should the IP policy focus on creating access rights to existing data stocks rather than giving protective rights to data stocks?](#)

Kommentiert [A21]: DEU suggests that fair access to existing data should be the focus of attention rather than the creation of new property rights.

[\(xiii\) If new access rights were to be considered, what are the details of these rights \(see above – types of data, item iii.\)](#)

[V. AI Protection](#)

[\(xiv\) Apart from the protection of data, should there be a new IP right for trained AI?](#)

DESIGNS

[Issue 11: Authorship and Ownership](#)

24. As with inventions, designs may be produced with the assistance of AI and may be autonomously generated by an AI application. In the case of the former, AI-assisted designs, computer-aided design (CAD) has long been in use and seems to pose no particular problems for design policy. AI-assisted designs might be considered a variant of computer-aided design and might be treated in the same way. In the case of AI-generated designs, questions and considerations arise that are similar to those that arise with respect to AI-generated inventions (Issue 1, above) and AI-generated creative works (Issue 6, above). Specifically,

(i) Should the law permit or require that design protection be accorded to an original design that has been produced autonomously by an AI application? If a human designer is required, should the law give indications of the way in which the human designer should be determined, or should this decision be left to private arrangements, such as corporate policy, with the possibility of judicial review by appeal in accordance with existing laws concerning disputes over authorship?

(ii) Do specific legal provisions need to be introduced to govern the ownership of autonomously generated AI designs, or should ownership follow from authorship and any relevant private arrangements, such as corporate policy, concerning attribution of authorship and ownership?

Kommentiert [A22]: DEU agrees that regarding AI and design questions arise similar to those with respect to AI and patents and AI and protected creative works. But those questions might have to be answered differently because of the specifics of design law. In particular, in most member states IP offices do not examine any or just a few requirements before registering a design. What implications would for instance a requirement to name the designer in a design application have in this context? If IP offices had to examine this requirement before registration it would put a high administrative burden on them. If not, this requirement might not be more than a formality without any effect.

Kommentiert [A23]: Design protection has lower protection requirements than patents or creative works. It can therefore be assumed that it will be much easier to use AI to produce designs that will fulfill the requirements for design protection than other contents eligible for IP protection. There are already reports in the news that AI has been used to produce millions of variations of a design for a product. If protected designs could be produced in such quantities, how should this be handled? What reason would there be to protect such mass-producible designs? Would we even need to set an incentive to generate this kind of content by granting an exclusive intellectual property right?

TECHNOLOGY GAP AND CAPACITY BUILDING

25. The number of countries with expertise and capacity in AI is limited. At the same time, the technology of AI is advancing at a rapid pace, creating the risk of the existing technology gap being exacerbated, rather than reduced, with time. In addition, while capacity is confined to a limited number of countries, the effects of the deployment of AI are not, and will not be, limited only to the countries that possess capacity in AI.

26. This evolving situation raises a considerable number of questions and challenges, but many of those questions and challenges lie well beyond IP policy, involving, for example, questions of labor policy, ethics, human rights and so forth. This present list of issues, and WIPO's mandate, concerns IP, innovation and creative expressions only. In the field of IP, are there any measures or issues that need to be considered that can contribute to reducing the adverse impact of the technology gap in AI?

Issue 12: Capacity Building

- (i) What policy measures in the field of IP policy might be envisaged that may contribute to the containment or the reduction in the technology gap in AI capacity? Are any such measures of a practical nature or a policy nature?

ACCOUNTABILITY FOR IP ADMINISTRATIVE DECISIONS

27. As indicated in paragraph 2(a), above, AI applications are being increasingly deployed in IP Administration. The present list of issues is not concerned with questions relating to the development and possible sharing of such AI applications among Member States, which are being discussed in various working meetings of the Organization and in various bilateral and other relationships between different Member States. However, the use of AI in IP Administration also raises certain policy questions, most notably the question of accountability for decisions taken in the prosecution and administration of IP applications.

Issue 13: Accountability for Decisions in IP Administration

- (i) Should any policy or practical measures be taken to ensure accountability for decisions made in the prosecution and administration of IP applications where those decisions are taken by AI applications (for example, the encouragement of transparency with respect to the use of AI and in relation to the technology used)?
- (ii) Do any legislative changes need to be envisaged to facilitate decision-making by AI applications (for example, reviewing legislative provisions on powers and discretions of certain designated officials)?

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