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To: UK Intellectual Property Office
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Re: Artificial intelligence and intellectual property: call for views, published 7 September 2020

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Submission on behalf of The Centre for Science, Culture and the Law at the University of Exeter
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Artificial intelligence and performers' rights

Submission to the UK Intellectual Property Office

1. Introduction

This submission focuses on the impact of Artificial Intelligence (AI) systems on **performers' rights** provided in Part II of the Copyright, Designs and Patents Act 1988 (the Act).[2]

AI systems have introduced ground-breaking changes to the practice of performance synthetisation. Performance synthetisation refers to the manipulation of a performance or performer's likeness. Performance synthetisation powered by AI (or AI-made performance synthetisation) utilises live or recorded performances protected by performers' rights as source material.

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[1] **Mathilde Pavis, *'Submission to the UK IPO: Artificial Intelligence and Performers' rights'* (30 November 2020).**[redacted]
I am grateful to colleagues of the Centre for Science, Culture and the Law at the University of Exeter for their comments. I would like to thank, in particular, Dr Naomi Hawkins, Dr Andrea Wallace, and Dr Karen Walsh. Comments and mistakes are my own.

[2] The submission will not address the rights of persons having recordings rights (see, Section 180(1)(b) of the Act). However, observations applicable to performers' rights are also relevant to sections applicable to persons having recording rights. They are identified as key stakeholders in this analysis.

At present, performance synthetisation is commonly performed using highly expensive digital technologies known as computer-generated-imaging (CGI) or visual effects (VFX), only available to a small number of well-resourced production companies due to their cost. AI systems provide an **effective and accessible alternative** to these technologies. As a result, AI systems have made high-quality performance synthetisation more available and versatile in its application than ever.

AI systems bring opportunities for innovation and disruption in the production and distribution of performances. However, AI systems inevitably impact the **economic and moral interests of performers** and other stakeholders invested in the making of performances like producers or beneficiaries of recording contracts.

The Act does not protect performers and other stakeholders against AI-made performance synthetisation because the application of its provisions to this type of activity is unclear. Performers and other stakeholders are thus left exposed by the current intellectual property (IP) framework. This sector of the creative economy is ill-equipped to adapt to the changes brought by AI systems to their industry.

Performance synthetisation created using **AI systems raises novel legal questions on the subsistence and infringement framework for performers' rights**. Some of these questions are unique to performers' rights (as opposed to copyright or other related rights).

AI-made performance synthetisation challenges our intellectual property framework insofar as it is capable of reproducing performances without generating a 'recording' or a 'copy' of a recording. This technical distinction between the reproduction of a performance, the recording of a performance and the reproduction (or copy) of that recording is important. The Act does not grant protection against unauthorized *reproductions* of a performance. Instead, the Act controls the *recording* of a performance, and the copy of that recording.

The Act does not regulate unauthorised *reproductions* of performances, via imitation, re-performance or synthetisation. For example, take the performances delivered by former Prime Minister Margaret Thatcher in the form of public speeches. These performances are available to us today via sound recordings and films. The reproduction (or copy) of these recordings falls within the current scope of the reproduction right of performers' rights. However, the re-performance of Thatcher's speeches by actors who closely imitate her appearance, her voice and her style of interpretation, does not. Neither does the synthetisation of Thatcher's performances using AI systems.[3] This is because, like the actors, AI systems are capable of producing a digital imitation of a performance without physically copying the recordings. Put simply, **AI-made synthetisation generates digital sound and look-alike**, and falls outside the scope of protection conferred to performances by the Act.

Unlike imitations by human performers, AI-made performance synthetisation can be produced and distributed on vaster scales. AI-made performance synthetisation can be applied to any live or recorded material (sound, still images or moving images) from any sources (films and TV productions, broadcast, interviews, footage created by individuals for domestic or private purposes, social media, oral histories, etc.).

[3] A synthetisation of Margaret Thatcher's performances using AI systems is currently in production under the artistic direction of Dr Dominic Lees, at the University of the West of England (Bristol, UK).

Until now, the reproduction of performances (rather than recordings) did not represent a serious economic or moral threat to performers and those investing in the making of performances. With AI-made performance synthetisation, **AI systems are the first form of reproduction technology to hit the Achilles' heel of performers' rights**.

The impact of AI systems on the economic and moral interests of performers and others invested in the making of performances is comparable to the impact of sound recording and film technologies introduced at the beginning of the 20th century.

The current scope of the Act means that performers and other relevant stakeholders are left unprotected against the unauthorised synthetisation of their performances. Without the legal recognition of these rights, performers are also unable to form contracts to authorise the synthetisation of their performance or likeness. As a result, performers are unable to commercialise the synthetisation of their own performance effectively. The legal recognition of these rights is therefore paramount to supporting performers and other relevant stakeholders in adapting to the changes that AI systems will bring to their industry.

For these reasons, the **UK Intellectual Property Office should review the impact of AI systems on performers' rights**, particularly in relation to performance synthetisation. Any review should aim to improve the legal protections for performers and others invested in the making of performances.

Improved legal protections will enable these stakeholders to **control the unauthorized synthetisation of protected performances** and **form secure contracts to monetize their synthetisation**. These improved legal protections will increase legal certainty in the application of performers' rights to performance synthetisation using AI systems.

This **reform closes an existing gap in UK law**. This reform is the opportunity to establish the UK as a forward-thinking global leader on the legal protection of performers.

Key points of the submission

In that context, this submission argues:

- **Performers' rights must be included in the UK IPO review** of the impact of AI systems on intellectual property, particularly via performance synthetisation;

- There is **a gap in the protection of performers** and other relevant stakeholders under performers' rights. The Act does not grant protection against unauthorized *reproduction* of performances such as those produced by AI-made performance synthetisation. This gap in protection must be closed to protect the economic and moral interests of performers and those invested in the making of performances;

- **Performers' rights should be augmented** to include protection against the reproduction of performances.

    - Section 182(1) should be revised to include the synthetisation of live performances as an act of 'recording';
    - Section 182A of the Act should be revised to include the synthetisation of recordings as an act of making 'a copy'.
    - Alternatively, Part 2 of the Act should be revised to introduce a separate right to control the reproduction of performances;

- Ongoing **developments in copyright law** can be used to inform a reform of performers' rights regarding:
    - the **application of exceptions and limitations** in the context of AI-made performance synthetisation;
    - the **subsistence of performers' rights, performership and first ownership of rights** in performances generated by AI systems, in which no human performer is directly involved.

This submission is informed by existing UK statutory law and case law. This submission highlights where further research is necessary to support legal reform and policy making in this area.

Structure of the submission

The submission is structured as follows:

- **Section 2** responds to the questions posed by the UK Intellectual Property Office;
- **Section 3** provides a background to AI-made performance synthetisation;
- **Section 4** provides a technical primer on AI-made performance synthetisation and highlights the unique ways AI systems engage with protected performances to outline the gaps in the legal protection of performances;
- **Section 5** assesses the application of performers' rights to AI-made performance synthetisation.
- **Section 6** concludes by stressing the key recommendations of the submission.

2. Questions posed by UK Intellectual Property Office

The UK IPO's call for consultation on copyright and related rights suggests that the use of 'related rights' refers primarily, if not exclusively, to rights applicable to databases. This submission recommends that performers' rights should also be included in any review.

In doing so, this submission responds to two questions raised by the call:

- **General inquiry** on how *'the IP framework relates to AI at present'*.

    Answer: The IP framework for performers' rights does not apply well to AI systems using protected performances within the meaning of performers' rights. This is especially true in the context of AI-made performance synthetisation. This issue will only become more pressing as technology develops and finds routes to markets.

- **Copyright Question 7**: *"Do other issues need to be considered in relation to content produced by AI systems?"*

    Answer: Yes, the legal protection of performances must be considered in relation to content produced by AI systems, particularly via performance synthetisation. This requires an analysis of: (1) how protected performances are used by AI systems with and without authorization; and (2) whether rights subsist in new performances created by AI systems.

3. Background on performance synthetisation using AI systems

AI systems have broken new grounds in the synthetisation of complex content. Performance synthetisation is a key area in this development.

Content synthetisation is not limited to **performance synthetisation** and may use or generate works in the meaning of copyright. Performance synthetisation can implicate other legal areas like privacy, data protection and contract. Due to the focus on performers' rights, this submission will solely discuss issues pertinent to the application of Part II of the Act, and exclude copyright and other legal areas from its analysis.

3.1. What is performance synthetisation?

Performance synthetisation is the process of creating a synthetic performance. This is often achieved by manipulating the likeness of a performance or a performer.

For the purpose of this submission, a **synthetic performance** is defined as a performance made of so-called synthetic data conveyed by sound or images. Current performance synthetisation modelling processes use data collected from live and pre-recorded performances delivered by human performers.

Performance synthetisation creates a synthetic performance that resembles an existing performance by reusing the likeness of the performer or the performance, or even both. Imitative synthetic performances could be described as digital look-alikes or sound-alikes. Other forms of performance synthetisation rely on data from live and recorded performances by humans without attempting produce faithful imitations of their likeness or interpretation.

Four primary types of performance synthetisation models are currently in use: **synthetisation for editing or enhancement**; **synthetisation for re-enactment**; **synthetisation for replacement** and **pure synthesis**.[4] Each model relies on and generates different types of input data (source performance and other material) and output data (synthetic performances).

(1) **Synthetisation for performance editing or enhancement**. Performance synthetisation is used to edit an existing performance or the appearance of a person. *Used in software and apps editing still or moving images and sound.*

(2) **Synthetisation for performance re-enactment**. Performance synthetisation is used via the performance of one person 'driving' the performance of another. *Used to produce parodies or satires, video games, dubbing, historical re-enactments or posthumous performances in audio and audio-visual media.*

(3) **Synthetisation for performance replacement**. Performance synthetisation is used to replace part of the performance of a person with part of the performance of another which preserves the appearance or identity of either individual. *Used in software and apps that offer 'face swapping' features, or by retailers to help costumers visualize themselves with or wearing their products.*

[4] This taxonomy is a development of the categorisation proposed by Mirsky and Lee in Yisroel Mirsky and Wenke Lee, *'The Creation and Detection of Deepfakes: A survey'* [2020] ArXiv Lab, arXiv:2004.11138v1.

(4) **Pure performance synthesis.** Performance synthetisation occurs without using source material attributed to any one performer, or performance. *Used in films, video games and social media to create characters or new publics (digital figures). Also used to support public-facing digital services, such as customer service.*

Output performances may be fully or partially synthetized. Here, 'partial synthetic performances' refer to output performances that manipulate only certain parts of an existing performance. This is achieved by synthetising an area or region of a recording and integrating or superimposing the data back into the source material.

For example, the performer's face may be manipulated and synthetized whilst the rest of the recorded performance is left unedited. This is similar to CGI or VFX techniques used to edit the likeness of a lead performer into a performance otherwise executed by a stunt actor or stand-in.[5]

The output performance is thus a composite of both source and synthetic data.

3.2. What is new or distinctive about AI-made performance synthetisation?

AI systems are more accessible than any other technology capable of producing complex synthetic performances or medium- to high-quality synthetic performances than traditional methods, like CGI or VFX. AI-made performance synthetisation is **cheaper** (requires less hardware or software to run), **easier** (requires fewer technical skills) and potentially **quicker** (depending on the input data used and output data desired). Unlike traditional methods, AI systems **are open source and available online.** Consequently, the making of high-quality and/or complex synthetic performances is no longer the preserve of well-resourced organisations or trained experts. As AI technology develops, AI systems are soon expected to produce better results than traditional methods.

AI systems are **flexible** and can be tailored to use any input data (e.g., live performances, performances recorded in still images, moving images or sound recordings) and trained using those materials to create new synthetic data of a different format. For example, AI systems can be designed to generate (synthetic) moving images from still images as input data. Similarly, AI systems can be designed to use still images, sound recordings and films, as input data, to produce (synthetic) audiovisual content, as output data.

AI systems creates **completely synthetic (new) output data**. AI systems do not re-mix or edits part of input data to produce output; AI systems applied to performance synthetisation creates new data (i.e., synthetic performances) resembling existing input data (i.e., pre-existing performances).

[5] These techniques have also been used to remove the likeness of a lead performer post-production. Mathilde Pavis, 'Erasing Kevin Spacey: performers' rights to the rescue? (*The IPKat,* 13 November 2017); Mathilde Pavis, 'Cutting Kevin Spacey out of a film could lead to 'scandal clauses' in Hollywood' (*The Conversation*, 15 January 2018).

3.3. Current applications of AI systems for performance synthetisation

AI-made performance synthetisation includes a range of applications, such as:

(a) **Text-to-voice or image-to-voice translation or generation**, like those produced by Google with the Cloud text-to-speech using DeepMind technology;
(b) **Interactive digital humans or digital avatars** capable of audio-visual interaction with users, as those produced by Soul Machines or the LuminAI project;
(c) **Manipulation of existing identities in audiovisual content such as Deepfakes**, as those produced or distributed by FaceApp Inc, Spectre, University College Berkeley,[6] Dreamnet, the Virtual Maggie Project at the University of the West of England, or the St Petersburg's Dali Museum.

AI-made performance synthetisation creates new opportunities for innovation and creativity and will undoubtedly improve existing markets, as well create new ones. Examples of positive applications include the creation of: engaging educational resources; new creative and entertainment content; accessible content for disabled users; and content available in multi-languages.

However, AI-made performance synthetisation also creates opportunities for abuse. One type of AI-made synthetic performance known as 'Deepfakes' (or 'Deep Fakes') has received significant public and legislative attention in various countries for its malicious application, notably in the context of sexual abuse and the threat it may pose to elections.[7] Examples of negative applications include content manipulation to: undermine an individual's personal autonomy and freedom from harm (e.g., sexual abuse, harassment, blackmail, discrimination, defamation); spread misinformation (e.g., the manipulation of elections, disruption of public discourse); seek commercial gain or inflict commercial harm to an individual or a company (e.g., free-riding or passing off, commercial sabotage).[8]

These positive and negative examples of performance synthetisation using AI systems illustrate their wide-ranging implications going beyond our creative economy. Indeed, this technology is expected to play a critical role in the generation of new cultural and creative content, as well as in creating new commercial markets and business models. These creative, cultural and commercial opportunities and the challenges this AI system will bring warrant the IPO's attention regarding its on performers' rights.

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[6] Caroline Chan, Shiry Ginosar, Tinghui Zhou, Alexei Efros, 'Everybody can dance now' [2018, revised 2019] ArXiv Lab, arXiv:1808.07371v1 [cs.GR].
[7] See for example, **United States**: Malicious Deep Fake Prohibition Act of 2018. S.3805. 115th Congress (2017-2018); **Australia**: Criminal Law Amendment (Intimate Images) Act 2018 (Western Australia); Crimes Amendment (Intimate Images) Amendment Act 2017 (New South Wales); **France**: Law No 2018-1202, Loi n° 2018-1202 du 22 décembre 2018 relative à la lutte contre la manipulation de l'information.
[8] Bobby Chesney and Danielle Citron, *'Deep fakes: a looming challenge for privacy, democracy, and national security'* (2019) 107 California Law Review 1753.

4. Technical primer on AI systems applied to performance synthetisation

A technical description of how AI systems operate in this context is useful to grasp: (1) what performances (input data) the technology engages with, and how; and (2) what synthetic performance (output data) the technology generates, and how.

This discussion focuses on key moments during data collection, analysis and generation that are relevant to performers' rights, and particularly with regard to the rights of recording and reproduction.

4.1. AI modelling for performance synthetisation

AI models process existing performances by detecting and breaking the input data down into extremely fine data points to learn from and generate a new synthetic performance. Through data analysis, the synthetic performance is able to imitate the input data without technically copying it.

This modelling process detects patterns from the input data to separate data conveying the likeness of a performer or the likeness or style of a performance from the material it is interpreting (e.g., the speech, the dance routine, the song). This detection and analysis are so minute that the AI is capable of separating the data points pertaining to each layer of the source material in ways the human eye or ear cannot.

The modelling process achieves this by identifying markers pertinent to each of these expressive layers embedded in human performances (e.g., likeness, embodiment or interpretation, underlying movement or speech). The process is then able to filter out markers, or data points, it does not seek to reproduce in output synthetic performance. This results in the faithful synthetic imitation of a performer executing an entirely new, or different, speech or movement.

4.2. AI networks used for performance synthetisation

Currently AI systems for performance synthetisation are neural networks. The four key types of neural networks used include Encoder-Decoder Networks (ED), Convolutional Neural Networks (CNN), Generative Adversarial Networks (GAN), Recurrent Neural Networks (RNN).[9]

Performance synthetisation requires the organisation of several individual neural networks into a carefully-crafted architecture, or constellation, of networks. Different individual neural networks are tasked with the analysis and generation of different data types or parts needed for performance synthetisation. The networks' architecture will vary according to the type of synthetisation output desired and the type of input data available.

[9] Two additional types of neural networks can be listed, they combine types of networks already listed: pix2pix made of an ED and a CNN; and CycleGAN made of two GANs. See Yisroel Mirsky and Wenke Lee, *'The Creation and Detection of Deepfakes: A survey'* [2020] ArXiv Lab, arXiv:2004.11138v1.

Most current AI models for performance synthetisation use what are called a 'target' performance (executed by a target performer) and a 'driving' performance (executed by another performer, the driving performer). Both the 'target' and 'driving' performance are 'source' performances that the neural networks will analyse and learn from to generate the synthetic performance. These source performances constitute the input data. The synthetic performance constitutes the output data.

A 'target' performance is typically the performance from which the likeness of the performer and/or the interpretation is sought to be captured, reproduced and re-created in the synthetic performance. The 'driving' performance is typically used to manipulate the target performance so as to have it express new or different movements, expressions or sounds.

The synthetic performance consists of synthetic data generated (or in AI terminology 'generalized') on the basis of performances by at least two performers (the target and driving performer).[10] To what extent each of the source performances will influence the synthetic performance depends on the desired effect and will be reflected in the design of the AI protocol.

Two points are worth noting in relation to source performances. First, not all performance synthetisation will involve a target or a driving performance. Some AI models may replace the driving performance (and driving performer) by another types of driving signal. Other driving signals can include multiple performances by multiple performers, as opposed to a single performance by a single performer. Other driving signals can also include data from source materials that are not performances but works, databases or subject-matter falling outside the taxonomy of intellectual property.

Second, as AI models improve, new models are continuously innovating regarding the networks' reliance on input data for source performances. Existing models are able to produce synthetic performances using single or multiple data points as source performance(s) to generate single to multiple data outputs as synthetic performance(s). As the source, format and volume of input and output date varies from one model to the next, or from one generation to the next, each model's design will engage differently with the scope of protected subject-matter under performers' rights.

AI systems applied to performance synthetisation follow this basic structure or process. In the description below, the model synthetises a performance (the target performance), using the performance of another (the driving performance) to drive new movement or sound.

We will take the example of synthetising Margaret Thatcher using recordings of her speeches to illustrate our description. In this example, we synthetise Thatcher with a view to include her synthetic avatar into a fiction film. As such, the synthetic Thatcher will be performing original dialogues and movements, different from those featuring in the recordings of her authentic or real performances.[11] The performance of the synthetic Thatcher is driven by the performance (speech and movement) of an actress delivered specifically for the purpose of synthetisation. The actress' performance is recorded in a film.

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[10] See for example, Caroline Chan, Shiry Ginosar, Tinghui Zhou, Alexei Efros, 'Everybody can dance now' [2018, revised 2019] ArXiv Lab, arXiv:1808.07371v1 [cs.GR].

[11] This example draws on ongoing work by the '*Virtual Maggie Project*' under the artistic direction of Dr Dominic Lees, at the University of the West of England (Bristol, UK).

Using a target performance and a driving signal, AI protocols follow these key steps:

(1) **Detection.** The network(s) detect data from the *target performance* to capture key markers of the target performances (i.e., what constitutes the likeness or unique embodiment of the target performer).

The network(s) detect data from the *driving performance* to capture key markers of the driving performance (i.e., what constitute the performance of the driving performer, such as facial expression or movements).

EXAMPLE
In our example, the target performance is Thatcher's. The source data is the recordings of Thatcher's public speeches. The networks are designed to detect data to capture the key markers of Thatcher's likeness, voice and embodiment from the recordings. The networks are set to exclude data specific to the speeches or movements executed by Thatcher in her authentic performances captured in the recordings. *The driving performance is that of the actress performing the new movement and speech that will become those of synthetic Thatcher when the synthetisation is complete. The source data is the audiovisual recording of the actress's performance. The networks are designed to collect the key markers pertinent to the actress' performance (i.e. the key markers of the movements and speech). The networks are set to exclude, or avoid, capturing data pertinent to the actress's likeness or specific embodiment.*

(2) **Intermediate representation.** The network(s) extract this data and produces 'intermediate representations' of the target performer, which reproduces key markers of the target performer. The networks will also produce 'intermediate representations' of the driving performance, which reproduces the key markers of the driving performance.

EXAMPLE
In our example, the networks will produce intermediate representations of Thatcher's likeness and embodiment on the one hand (as target performance), and the intermediate representations of the actress's movements and speech on the other (as driving performance).

(3) **Generalisation.** The network(s) generate a new performance on the basis of the intermediate representations of the target performer and driving performance.

EXAMPLE
In our example, the networks are generalizing new (synthetic) data reproducing Thatcher's likeness and voice combined with the movement and speech of the actress.

(4) **Integration.** The network(s) blends the generated performance into a pre-existing recording, often one that captures other aspects of the target performance. This additional step only applies to the partial synthetisation of a performance.

EXAMPLE
In our example, the synthetic silhouette and voice of the new Thatcher is integrated into the shots recorded for the making of the fiction film. As such, the result is one of partial synthetisation of the full image whereby the silhouette, voice and performance of the new Thatcher is synthetic but the background in which the character sits is not (i.e. the background is constituted of the authentic recordings produced by the film-maker).

4.3. Intermediate representation of performances and performers

Most current AI models for performance synthetisation use intermediate representation to essentialise, or parametise, the source performances (target or driving). Intermediate representation is the process of extracting key markers or landmarks of a performance. The intermediate representation of a target performance extracts the performer's likeness and/or embodiment in the performance.

When intermediating movement, the process may reduce the source performances to mere 'points' that parametise the unique style of embodiment of the performer, stripping away identify markers unique to their physicality. Intermediation representation 'codes' the source performance. It is capable of differentiating between what we (the viewer) perceive as markers of someone's identity from what we would class as a performer's embodiment in a performance. This is one of the unique features of AI systems applied to performance synthetisation.

There are many different methods of intermediate representation depending on the nature and format of the input data and the desired appearance of the synthetic performance.

5. Performers' rights and performance synthetisation by AI

5.1. An overview of performers' rights

Performers' rights include two sets of rights:

- the right to consent to *the making of a recording of a performance* (under Section 182 of the Act); and
- the right to control the subsequent use of such recordings, such as *the right to make copies of recordings* (under Sections 182A, 182B, 182C, 182CA, 182CA, 182D, 183 and 184).

This submission focuses on how performance synthetisation by AI systems engage with these protected acts. The analysis centres on the right to make a recording of a performance (Section

182) and copy such recordings (Section 182A) because the other protected acts are dependent on the application of these two rights.

The majority of available AI models of performance synthetisation relies on input data from pre-recorded performances (those of the target and driving performances). AI models of performance synthetisation has nevertheless been designed to also work from and detect live data from live performances.

In the strictest sense, AI models of performance synthetisation does not record or copy recordings of performances. It is possible to design AI models to include a phase whereby the networks collect and copy recorded performances or record live performances before synthesising them. In such instances, this phase of data collection likely constitutes an act of recording a performance or an act of making a copy of such recording in violation of performers' rights.

This type of use is distinct from the act of synthetisation itself. It is a task performed in preparation for the synthetisation whereby the model collects data before it detects and analyses it. This phase of data collection poses less difficulty to the enforcement of performers' rights in ways already envisaged by the Act.[12] Moreover, this task is not necessary for AI models to synthetise performances. AI models can synthetise performances by extracting data directly from the source materials, without pre-recording performances or copying recordings of performances, in violation of performers' rights.

For these reasons, this non-necessary phase of data collection is excluded from the scope of this analysis to focus on the use of performances in performance synthetisation as described in Sections 3 and 4 of this submission.

5.2. Novel legal questions raised by AI-made performance synthetisation

This submission raises the novel legal questions raised by AI-made performance synthetisation in relation to performers' rights.

The submission transposes the topics raised by the 'Copyright Questions' of the call to **performers' rights** and the **use of protected performances by AI systems**.

The submission thus addresses:

- the **infringement** of performers' rights by AI systems;
- the **application of exceptions and limitations** to the use of protected performances by AI systems; and,
- the **subsistence, performership and first ownership of performers' rights** in synthetic performances generated by AI systems.

From these topics, the submission identified **four key technical legal questions** listed under:

- **Question A** and **Question B** (on infringement);
- **Question C** (on exceptions and limitations); and
- **Question D** (right subsistence, performership and ownership).

[12] See for example Section 182A(1A). Exceptions and limitations applicable to data mining might be relevant in this context, although this area of legislation is limited and sits outside the scope of the Act at present.

These technical legal questions refer directly to the provisions of performers' rights under the Act. The following **four technical legal questions** require review by the UK IPO:

Question A – Does synthetising a performance from live performances amount to the '*making of a recording*' within the meaning of Section 182(1)?

Answer: The Act is unclear and might be read to include the synthetisation of live performances as an act of recording. Under this interpretation, the Act would introduce a right to control the reproduction of the live performance itself *de facto*. This would be inconsistent with the protection currently conferred to performances by the Act.

Recommendation: The UK IPO should provide clarity and reform Section 182(1) or the Act to include synthetic performances made from live performances by creating a right to control the reproduction of a performance. Reform will introduce coherence to the Act.

Question B – Does synthetising a performance using the recordings of a performance amount to making '*a copy*' within the meaning of Section 182A?

Answer: The Act is unclear and could be read to include the synthetisation of a recording as making a copy. Under this interpretation, the Act would introduce a right to control the reproduction of the performance itself (embedded in the recording) *de facto*. This would be inconsistent with the protection currently conferred to performances by the Act.
Recommendation: The UK IPO should provide clarity and reform Section 182A or the Act to include synthetic performances made from recordings by creating a right to control the reproduction of a performance. Reform will introduce coherence to the Act.

Question C – Should existing or new exceptions and limitations apply to the synthetisation of live or recorded performances using AI-systems?

Answer: In the event the Act is revised as recommended, existing exceptions and limitations to performers' rights should continue to apply in the context of performance synthetisation.

Recommendation: Further research is necessary to determine how existing exceptions and limitations should apply and whether new exceptions and limitations are required to facilitate innovation.

Question D – Can or should a synthetic performance be protected by performers' right? And, who is or should be the first owner or holder of such rights? Can AI be a performer?

Answer: The Act is unclear on these points. The provisions could be read to protect synthetic performances and performances by non-humans. Nevertheless, the absence of human performers in the process of synthetising should be noted. This should invite us to question the need to extend rights where no human labour, in the form of performance, is invested.

Recommendation: The UK IPO should provide clarity on the performership and first ownership of rights in the context of synthetic performances. Further research is necessary on the suitability of extending any intellectual property protection to synthetic performances (via

performers' rights, *sui generis* rights, or other). This issue is closely linked to, and should be consistent with, the position of UK law on the subsistence, authorship and ownership of copyright in works made by AI systems.

5.3. Question A – Synthetisation and the making a recording of a performance (infringement)

Under section 182, making a recording of the whole or a substantial part of a live performance or broadcast of a performance requires the consent of the performer(s).

Question A – Does synthetising a performance from live performances amount to the '*making of a recording*' within the meaning of Section 182(1)?

Answer

The application of Section 182(1) to the synthetisation of live performances using AI systems is uncertain.

This uncertainty is particularly problematic because what constitutes *'the making of a recording of the whole or a substantial part'* of a protected performance will impact the application of the subsequent rights contained in the Act, as they control the use and dealings of such recordings.[13]

The wording of Section 182(1) might be broad enough to include synthetisation as an act of 'making a recording' of a live performance; if the provision is interpreted literally and in isolation from other sections in Part II of the Act.

However, such a literal interpretation of Section 182(1) would not be consistent with the regime of protection conferred to performances by the Act.

Section 182(1) is a right to control the fixation of a live performance (in a recording) not a right to control the reproduction the live performance embedded within that recording via imitation or re-performance. From a technical standpoint, AI-made performance synthetisation from live performances does not make a recording the live performance(s). Rather, it reproduces the performance itself, or parts thereof.

For these reasons, classing synthetisation as a form of 'recording' would be at odds with the performers' rights regime as it currently stands under the Act, and a mischaracterisation of the technology.

These observations cast serious doubt as to the soundness and validity of interpreting Section 182(1)(a)-(b) as including synthetisation made from live performance(s) using AI systems.

This brings us to conclude that AI-made performance synthetisation does not fall within the current scope of Section 182(1), although the flexibility of the text might allow a different interpretation of the provisions.

[13] Sections 182A to 182D, 183, and 184.

Recommendation

The UK IPO should work to:

- **remove the existing uncertainty** surrounding the interpretation of Section 182(1) as it applies to the synthetisation of live performances by AI systems; and,
- **close the gap in the legal protection** of performers left by Section 182(1) with regard to the reproduction of performances, such as AI-made performance synthetisation.

This can be achieved by:

(a) **Issuing guidance on the interpretation of Section 182(1)** supporting a literal interpretation of the text.
This approach would be inconsistent with the regime and scope of application of performers' rights. For this reason, this is not the preferred option.

(b) **Reforming Section 182(1)** to include synthesisation made from live performances in the scope of application.
This approach would extend the regime and scope of application of performers' rights by creating a right to control the reproduction of performances de facto. *This approach introduces coherence to the Act.*

(c) **Reforming Part II of the Act** to introduce a right to consent to the reproduction of a performance, separate from the right to consent to its fixation in a recording provided under Section 182(1).
This approach extends the regime and scope of application of performers' rights by creating a right to control the reproduction of performances de jure. *This approach introduces coherence and clarity to the Act. For this reason, this is the recommended option.*

EXPLANATION

The relevant text of the Act with key phrases italicised reads:

Section 182

(1) A performer's rights are infringed by a person who, without his consent—
(a) *makes a recording of the whole or any substantial part* of a qualifying performance *directly from* the live performance,
(b) broadcasts live, the whole or any substantial part of a qualifying performance,
(c) makes a recording of the whole or any substantial part of a qualifying performance directly from a broadcast of, the live performance.

The text below includes:

- **a literal interpretation of the Section 182(1)(a)** in light of AI-made performance synthetisation. This literal analysis tests the meaning of *'recording'* (1) of the '*whole or any substantial part'* (2) made *'directly from'* the live performance (3).

- **an analysis of the scope of protection conferred by performers' rights (Part II of the Act).** This analysis contrasts the right to control the fixation of a performance against the right to control the reproduction of the performance itself.

Both approaches are critical to the interpretation of the Act in light of performance synthetisation by AI systems.

Literal interpretation of Section 181(1)(a)

'Recording'

For the purpose of performers' rights, "recording" is defined "a film or sound recording" made directly from the live performance (Section 180(2)).[14]

The Act specifies that the meaning of the words 'films' and 'sound recordings' in the contexts of performers' rights and copyright (Part I of the Act) are the same (Section 211(1)).[15]

Under Part I of the Act

'films' means

> "a recording on any medium from which a moving image may by any means be produced" (Section 5B(1)).

'Sound recording' means

> "a recording of sounds, from which the sounds may be reproduced or […] a recording of the whole or any part of a literary, dramatic or musical work, from which sounds reproducing the work or part may be produced" (section 5A(1)).[16]

Current AI models of performance synthetisation generates output data (i.e. synthetic performances) in formats that would fit the definition of 'films' or 'sound recordings'. In this regard, the output data (the synthetic performance) could class as a 'recording' and the process of synthetisation as the act of making a recording.

One exception would have to be made for performance synthetisation models whose output data comes in the form of a still images. This is because the Act does not seem to include still images or photographs as 'recording'. This is because the definition of a 'recording' outlined above appears to refer to '*moving* images' exclusively.

As a result, live performances synthetized into still images by AI systems would not be deemed 'recorded' in the meaning of Section 182(1) of the Act. Performances would therefore not be protected against this type of performance synthetisation.

[14] Section 180(2). Section 180(2) also refers to recordings directly or indirectly from existing recordings, which appears to contradict the meaning of 'recording' under Section 181(1)(a).
[15] Section 211(1).
[16] The Act specifies are the soundtrack of a film is to be treated if used separately from the film. See Sections 5B(2) and (3).

'The whole or any substantial part of" a performance

Section 182(1) refers to a recording of "*the whole or any substantial part of*" a performance.

It is unclear what constitutes "the whole or a substantial part of" the performance in the meaning of performers' rights.[17] This is because this phrase is not defined in the Act (neither in relation to performers' rights nor in relation to copyright).

There is substantial and settled case law on what constitutes *'a whole or a substantial part of'* protected content in connection to copyright. This is also known the 'substantiality test'. Simply put, what constitutes a substantial part of the work is a matter of impression, which can be assessed qualitatively rather than quantitively. Experts have recommended interpreting performers' rights accordingly.[18]

We can infer from this body of case law that the recording of a live performance will require the consent of the performer even if the recording only captures parts of the performance. For example, the recording of live performance capturing 30 secs of an interpretation lasting 5 minutes in total may constitute 'a substantial part of the performance' in the meaning of Section 182(1). Similarly, a sound recording capturing the whole of a live performance executed on stage will likely constitute a recording of the 'substantial part of the performance' even though it only captures the sound of the performance but none of its visual dimension.

An important aspect of these 'partial recordings' (i.e. records that capture a substantial part of a live performance) is that they capture performances that have actually occurred. These recordings aim to be faithful representations of live performances as they occurred.

By contrast, synthetic performances would are reproductions that resemble, imitate or even 'copy' the live performances but they do not 'represent', 'reproduce' or even 'record' them as they occurred. See Section 4 for more detail on how AI-made performance synthetisation engages with the source performances.

This type of 'reproduction' the live performance is not comparable to the hypotheses envisaged by the legislator at the time of writing of Section 182(1); and it is not comparable to the examples of partial recordings of performances given above.

For these reasons, it is unclear whether the synthetisation of a live performance constitutes the making of a recording of a 'substantial part' of the performance in the meaning of Section 182(1) of the CDPA.

'Directly from' the live performance

Section 182(1) refers to the recording being made "directly from the live performance".

[17] This uncertainty applies to all provisions of Part II of the Act that mention the phrase *"the whole or any substantial part of the performance"*.

[18] Richard Arnold, *Performers' rights* (2016, Sweet and Maxwell) 148-149, para 4.06-4.08. Courts have relied successfully on copyright precedents to interpret similar or equivalent parts of the regime of performers' rights. See for example, *Henderson v All Around the World Recordings Ltd & Anor* [2013] EWPCC 7, para 48.

The Act provides no statutory definition for the phrase. There is also no judicial authority that may assist in shedding light onto the meaning this phrase. The phrase has not received any particular or detailed attention by scholars either.[19]

It is unclear to what this phrase might refer to in practice. It is unclear what types of recording the legislator intended to either include or exclude by inserting this detail into the definition of the act controlled by Section 182(1).

The phrase might indicate that a distinction be made between 'direct' recordings of the live performance and 'indirect' recordings of the live performance. Indirect recordings of a performance might here refer to recordings made from pre-recorded performances.[20] This interpretation would render the phrase "directly from the live performance" redundant to the requirement that the performance be "live" (i.e. not a recording of a performance or pre-recorded performance).

With that being said, the adjective "live" as used in Section 182(1) is not defined by the act either. Experts have interpreted the expression to mean that Section 182(1) excludes pre-recorded performance,[21] which appears to be consistent with a literal interpretation of the ordinary meaning of the work in the context of this provision.[22]

The phrase "directly from a live performance" may prove problematic when applied to performance synthetisation from live performances using AI. If we accept that the output data (the synthetic performance) generated via synthetisation is a 'recording', it is debatable whether such recording be deemed made "directly from the live performance" considering the critical point that it conveys a performance that never took place. Can a recording be regarded as made "directly from a live performance" when the recording captures a performance that technically, and factually, never occurred? It seems not.

The phrase "directly from a live performance" suggests that the recording envisaged by the legislator at the time of writing was one that aimed to faithfully represent or convey the live performance as it occurred. Synthetic performances do not fit this description.

Synthetic performances are connected to, or linked to, the live performances they synthetise insofar as these performances provide data points which are analysed and later generalized to produce new performances. In this regard the 'recording' generated by synthetisation models using AI can only be described as made 'indirectly' from live performances.

If the phrase "directly from a live performance" is to be so interpreted, the synthetisation of live performance using AI systems cannot be construed as the act of making a recording of a live performance in the meaning of Section 182(1)(a).

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[19] The phrase is not discussed in the otherwise very comprehensive legal analysis of the Act delivered by Richard Arnold in *Performers' rights* (2016, Sweet and Maxwell).

[20] Note that by contrast, 'indirect' copies of recordings of protected performances are included in the scope of Section 182A (see Section 182A(2)). This would not be only incoherence in the regime of performers' rights stemming from the drafting of the provisions. See for example, the inconsistency on still images, discussed by Richard Arnold in *Performers' rights* (2016, Sweet and Maxwell) 153, para 4.22.

[21] Section 182(1) is to be understood as the "fixation right" of performers' rights. The recording of a pre-recorded performance would class as a use of the recording of the performance, controlled by subsequent performers' rights contained under Section 182A and following.

[22] Richard Arnold, *Performers' rights* (2016, Sweet and Maxwell) 150, para 4.12, contrasting the wording of Section 182(1)(b) and Section 183(b).

However, this interpretation of Section 182(1)(a) appears to be contradicted by Section 180(2)(c) of the same Act.

The objective of Section 180(2) is to define key words pertinent to Part 2 of the Act. The relevant text of Section 180(2)(c) with key phrases italicized reads:

> 'recording', in relation to a performance, means a film or sound recording –
>
> (a) made directly from the live performance,
> (b) made from a broadcast of a performance, or
> (c) *made, directly or indirectly, from another recording of the performance*'

It appears difficult to reconcile the scope of application of Section 182(1) with the definition of a recording indicated by Section 180(2) for the latter defines 'recording' in relation to a performance as including the ('direct') recording of a live performance (*consistently* with Section 182(1)) and the recording made from a recording ('direct' or 'indirect') (*inconsistently* with Section 182(1)). On this point, the Act appears incoherent.

It is possible that the notion of 'recording' defined in Section 180(2) refers not solely to the notion of recording in the meaning of Section 182(1) but to both the notion of 'recording' under Section 182(1) and the notion of 'copy' under Section 182A. Section 182A does refer to 'direct' and 'indirect' copies of a recording, as discussed in further detail in Section 5.4 of this submission.

This adds to the uncertainty of interpretation of Section 182(1) of the Act in relation to AI-made performance synthetisation.

The scope of protection by performers' rights (Part II of the Act)

The Act confers the right to control (or consent to) the making of a recording of a performance (the 'fixation right') and the right to control (or consent to) the subsequent dealings or use of such recordings.

The protection conferred to performances by the Act is centred on the recording of the performance, rather than the performance itself. As such, the performance and what composes its substance such as the likeness of the performer, the style of interpretation or the performers' embodiment falls outside the scope of protection, or the subject-matter protected by performers' rights.

This limitation of the regime of performers' rights is reflected in Act by the absence of a right to control the reproduction of the performance. Instead, the Act provides for the right to control the *recording* of the performance (Section 182) and the copy of the *recording* (not the performance) (Section 182), as well as other uses of such recording (Sections 182B to Section 184).

The omission of a right to reproduce the performance is not an oversight on the part of the legislator. Two points support this observation. First, this right is expressly included in the scope of protection conferred to works by copyright (under Part I of the Act) (Section 17).[23]

[23] Section 17.

It is clear from the writing and organisation of Part II of the Act that it was modelled after Part I; suggesting that any differences in wording signals an intentional difference in regime.

Second, preparatory works and legislative records indicate that international and national legislators intended for the regime of performers' rights to be narrower in scope than the regime of protection conferred to works by copyright. On this point, it remains unclear that legislators were able to envisage or foresee the threat posed by digital technologies such as AI-tooled performance synthetisation models to the economic or moral interests of performers. Whilst this change in technology might give legitimate cause to review and reform the Act with a view to extend the regime of performers' rights, it is not enough to justify an extensive interpretation of the Act, that would be inconsistent with the original intention of the legislator.

The absence of a right to control the copy of a (live) performance leaves performers without protection against the imitation of their performance via human performance (e.g. sound alike, look alike) or synthetic performance (e.g. via performance synthetisation).

Interpreting Section 182(1) to include performance synthetisation would have the indirect consequence of introducing a right to control the reproduction of a performance *de facto*. This would be inconsistent with the scope of protection conferred to performances, for no such rights exist under Part II of the Act, as explained above. If so, extensive interpretation of Section 182(1) would be contradictory to the Act, and the legislative intention it expresses.

Consequently, no literal interpretation of the Section 182(1), however flexible in its wording, should lead to construe the synthesisation of live performances using AI systems as 'the making of a recording' of a performance. Concluding otherwise would introduce incoherence in the regime of performers' rights.

A reform of the Act is required to include performance synthetisation in the scope of Section 182(1), and Part II of the Act.

5.4. Question B – Synthetisation and the copying of a recording (infringement)

Section 182A provides that the making of a copy of a recording of the whole any substantial of a protected performance requires the consent of the performer or performers.[24] This right is also known as performers' reproduction right.[25]

Question B – Does synthetising a performance using the recordings of a performance amount to '*copying*' the recordings within the meaning of Section 182A?

[24] Or the relevant owners of the rights.
[25] Section 182A(3).

Answer

The application of Section 182A to the synthetisation of recorded performances using AI systems is uncertain.

This uncertainty is particularly problematic because what constitutes the *'copy of the recording'* of a performance will impact on the application of the other rights contained in Part 2 of the Act.[26]

The wording of Section 182A may be broad enough to include synthetisation as an act of 'making a recording' of a live performance; if the provision is interpreted literally and in isolation from other sections in Part II of the Act.

However, such a literal interpretation would not be consistent with the regime of protection conferred to performances by the Act.

Section 182A provides a right to control the reproduction of the recording of a performance not a right to control the reproduction of the performance itself (i.e., the performance embedded within the recording). From a technical standpoint, AI-made performance synthetisation from recorded performances does not reproduce the recording of the performance. Rather, it reproduces the performance itself, or parts thereof.

For these reasons, classing synthetisation as a from 'copy' of the recording of a performance would be at odds with the performers' rights regime as it currently stands under the Act, and a mischaracterisation of the technology.

These observations cast serious doubt as to the soundness and validity of interpreting Section 182A as including synthetisation made from live performance(s) using AI systems.

This brings us to conclude that AI-made performance synthetisation of recorded performances does not fall within the current scope of Section 182A, although the flexibility of the text could allow a different interpretation of the provisions.

Recommendation

The UK IPO should work to:

- **remove the existing uncertainty** surrounding the interpretation of Section 182A as it applies to the synthetisation of recorded performances by AI systems; and,
- **close the gap in the legal protection** of performers left by Section 182A with regard to the reproduction of performances embedded in recordings, as those produced via AI-made performance synthetisation.

This can be achieved by:

(a) Issuing guidance on the interpretation of Section 182A(2) to construe the synthetisation of recorded performances as an 'indirect' copy of the recording of a performance.

[26] i.e., the right to issue copies to the public (Section 182B); the right to rent or lend copies to the public (Section182C); the right to make available (a recording) (Section 182CA); the right to use the recording (Section 183) and the right to import, possessing or deal with illicit recordings (Section 184).

This approach would be inconsistent with the regime and scope of application of performers' rights. For this reason, this is not the preferred option.

(b) Reforming Section 182A to include synthesisation of recorded performances in its scope of application.
This approach would extend the regime and scope of application of performers' rights by creating a right to control the reproduction of performances de facto. *This approach introduces coherence to the Act.*

(c) Reforming Part II of the Act to introduce a right to consent to the reproduction of a performance, separate from the right to consent to the reproduction of a recording provided under Section 182A.
This approach extends the regime and scope of application of performers' rights by creating a right to control the reproduction of performances de jure. *This approach introduces coherence and clarity to the Act. For this reason, this is the recommended option.*

EXPLANATION

The relevant text of the Act with key phrases emphasised reads:

Section 182A

(1) A performer's rights are infringed by a person who, without his consent, makes a ***copy of a recording*** of the whole or any substantial part of a qualifying performance.

(1A) In subsection (1), making a copy of a recording includes making a copy which is ***transient or is incidental*** to some other use of the original recording.

(2) It is immaterial whether the *copy is* ***made directly or indirectly***.

(3) The right of a performer under this section to authorise or prohibit the making of such copies is referred to in this Chapter as "reproduction right".

The text below includes:

- **a literal interpretation of the Section 182A** in light of AI-made performance synthetisation. This literal analysis tests the meaning of *'a copy of a recording'* (1), 'which is *transient* or is *incidental'* (2), made *'directly or indirectly'* (3).
- **an analysis of the scope of protection conferred by performers' rights (Part II of the Act).** This analysis contrasts the right to control the reproduction of a recording with the right to control the reproduction of the performance itself.

Both approaches are critical to the interpretation of the Act in light of performance synthetisation by AI systems.

Literal interpretation of Section 182A

A 'copy' of a recording

The Act does not define the word 'copy' (here, of a recording) in relation to performers' rights (Part II of the Act). There is no cross-reference made to the equivalent concept under copyright (Part I of the Act).

This suggests that a 'copy' may come in any format for the Act indicates any restriction. In fact, it is possible that the Act allows a still image to qualify as a 'copy' of the recording of a protected performance.[27]

Following this interpretation, the copy of a recording could include, but would not be limited to a film, a sound recording and a still image of the recording of whole or part of a performance.[28]

Current AI models of performance synthetisation using recorded performances generates output data (i.e. synthetic performances) in formats that would fit the definition of a 'copy' of a recording, in this regard.

'Transient' or 'incidental copy'

The Act confirms that a *'transient copy'* or a *'copy which is incidental to some other use of the original recording'* will still constitute a copy in the meaning of Section 182A(1). This does not appear to prevent the application of Section 182A to AI-made performance synthetisation using recorded performances.

Copy made 'directly' or 'indirectly'

The Act indicates that a copy of a recording may be made 'directly' or 'indirectly'. There is no explanation as to what a 'direct' or 'indirect' copy may be, and how the two types of copies may be differentiated in practice.

There is no indication of the technology, technique or practice the legislator might have had in mind at the time of writing. It is possible that no particular technology, technique or practice was targeted and that the phrase was inserted in an attempt to future-proof Section 182A. On this point, we face similar issues of interpretations as with the phrase "a recording *made directly* from a live performance" under Section 182(1) of the Act, as discussed above.

There is no judicial interpretation of the phrase. To date, 'indirect' copies, or copies made indirectly from the recording of a protected performance has been interpreted by experts to apply to:

- the use of clips, takes or out-takes from previous sound recordings or film into a new sound recording or film could be regarded as 'indirect' copies;[29]

[27] Interpretation inferred from the provision Sch. 2, para 17B.
[28] Schedule 2, para 17B.
[29] Richard Arnold, *Performers' rights* (2016, Sweet and Maxwell) 154, para 4.24.

- A copy of the first sound recording of a performance (the original sound recording) would be a direct copy of that original sound recording. Making another (second) copy of that copy may class as an indirect copy of the original sound recording.[30]

For there is no precise definition of what an 'indirect' copy of a recording is, and keeping in mind that the intention of the legislator might have been to future-proof Section 182A, it could be possible to construe synthetic performances generated via AI systems by using recordings as 'indirect' copies of these recorded performances. In this regard, there may be more flexibility of interpretation under Section 182A than there is under Section 182(1).

The scope of protection by performers' rights (Part II of the Act)

The scope of protection conferred by performers' rights under Part II of the Act limits our interpretation of Section 182A. The comments and conclusions made on this point in relation to Section 182(1) are repeated here for sakes of convenience and comprehensiveness.

The protection conferred to performances by the Act is centred on the recording of the performance, rather than the performance itself. As such, the performance and what composes its substance such as the likeness of the performer, the style of interpretation or the performers' embodiment falls outside the scope of protection, or the subject-matter protected by performers' rights.

This limitation of the regime of performers' rights is reflected in Act by the absence of a right to control the reproduction of the performance. Instead, the Act provides for the right to control the *recording* of the performance (Section 182) and the copy of the *recording* (not the performance) (Section 182A), as well as other uses of such recording (Sections 182B to Section 184).

The omission of a right to reproduce performances is not an oversight on the part of the legislator. Two points support this observation. First, this right is expressly included in the scope of protection conferred to works by copyright (under Part I of the Act) (Section 17).[31] It is clear from the writing and organisation of Part II of the Act that it was modelled after Part I; suggesting that any differences in wording signals an intentional difference in regime.

Second, preparatory works and legislative records indicate that international and national legislators intended for the regime of performers' rights to be narrower in scope than the regime of protection conferred to works by copyright.[32] On this point, it remains unclear that legislators were able to envisage or foresee the threat posed by digital technologies such as AI-tooled performance synthetisation models to the economic or moral interests of performers. Whilst this change in technology might give legitimate cause to review and reform the Act with a view to extend the regime of performers' rights, it is not enough to justify an extensive interpretation of the Act, that would be inconsistent with the original intention of the legislator.

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[30] Richard Arnold, *Performers' rights* (2016, Sweet and Maxwell), para 4.24.
[31] Section 17.
[32] Mathilde Pavis, *The Author-Performer Divide in Intellectual Property Law: A Comparative Analysis of the American, Australian, British and French Legal Frameworks* (unpublished thesis, 11 March 2016).

The absence of a right to control the reproduction of a performance (rather than the reproduction of a recording) leaves performers without protection against the imitation of their performance via human performance (e.g. sound alike, look alike) or synthetic performance (e.g. via performance synthetisation).

Interpreting Section 182A to include performance synthetisation would have the indirect consequence of introducing a right to control the reproduction of a performance *de facto*. This would be inconsistent with the scope of protection conferred to performances, for no such rights exist under Part II of the Act, as explained above. If so, an extensive interpretation of Section 182(1) would be contradictory to the Act, and the legislative intention it expresses.

Consequently, no literal interpretation of the Section 182A, however flexible in its wording, should lead to construe the synthesisation of recorded performances using AI systems the making of a copy of a recording of a performance. Concluding otherwise would introduce incoherence in the regime of performers' rights.

A reform of the Act is required to include performance synthetisation in the scope of Section 182A, and Part II of the Act.

5.5. Question C – Synthetisation, exception and limitations to performers' rights

Question C – Should existing or new exceptions and limitations apply to the synthetisation live and recorded performances using AI-systems?

Answer

Existing exceptions and limitations to performers' rights should continue to apply in the context of performance synthetisation, in the event that the scope of performers' rights is revised as recommended by this submission.

Recommendation

Further research and analysis are required to determine how existing exceptions and limitations ought to apply in the context of performance synthetisation.

This investigation should also seek to ascertain whether new exceptions or limitations are required to protect and encourage innovation.

5.6. Question D – Synthetisation, subsistence of rights and performership

Performance synthetisation using AI systems interrogate the notion of performership under the Act. AI-made performance synthetisation invites us to question what constitutes the subject matter protected by performers' rights and the appropriate first holdership and ownership of these rights.

Question D – Can or should a synthetic performance be protected by performers' right? And, who is or should be the holder of such rights? Can AI be a performer?

Answer

Whether synthetic performances may attract performers' rights is unclear.

The wording of the statutory provisions defining protected performances under the Act may be flexible enough to encompass synthetic performances, and performances by non-humans. Nevertheless, references to the 'performer' or 'performers' in the Act appear to envisage interpretation by humans.

There is no obstacle under international for the UK to extend performers' rights to non-humans.

Nevertheless, the absence of human performers in the process of synthetising should be noted. It should invite us to question or cast doubt on the need to extend rights where no human labour, in the form of performance, is invested.

Whether synthetic performances generated using AI systems should receive protection under performers' rights is a matter of policy. This issue cannot be settled by interpreting existing statutory provisions for they offer little guidance on the matter.

Further investigation is required to assess whether the protection of synthetic performances generated using AI systems by performers' rights, *sui generis* protection or any other rights is appropriate.

The issue of performership and first ownership in synthetic performances made by AI systems is linked to, and should be consistent with, the position of UK law on authorship and first ownership copyright in works made by AI systems.

Recommendation

The UK IPO should work to:

- **remove the existing uncertainty on performership and first ownership of performers' rights** in synthetic performances generated using AI systems; and,
- **assess the suitability of extending *any* legal protection** (*sui generis* or other) to synthetic performances generated via AI-made synthetisation where there is no human performance directly involved in the process

Any answer by the UK Intellectual Property Office on this question should to be consistent with the conclusions reached as regards the authorship of works made by AI.

EXPLANATION
The subject-matter protected by performers' rights (or Part II of the Act) is defined with reference to the performance rather than the performer under Section 180(2).[33] International law requires that performances that are the interpretations of works in the meaning of

[33] Mathilde Pavis, 'Runway models, runway performers? Unravelling the Ashby jurisprudence under UK law' (2018) 13 *Journal of Intellectual Property Law and Practice*, 867.

copyright be protected by performers' rights.[34] Signatory states, like the UK, are nevertheless free to extend protection to performances that do not interpret works in the meaning of copyright.

This statutory definition raises two questions in the context of AI-made synthetic performances: (i) Whether a performance must be delivered by a human performance to be protected; (ii) Whether a synthetic performance is the performance of a copyright work.

Performances by non-human

It is not an express requirement of the CDPA, or international texts, that the performance be delivered by a human performer; or that the performer delivering the interpretation be a human.

To the author's knowledge, this point was not discussed in legislative records and preparatory work documenting the implementation of performers' rights by national or international policy-makers.

Nevertheless, the Act refers to protected performances as "*those delivered by one or more individuals*" under Section 180(2). This phrase may be construed as limiting the application of performers' rights to performances delivered by humans for it refers to 'individuals'.

By contrast, international law defines the subject-matter covered by performers' rights with reference to the performers referring to them as 'persons'.[35]

Article 2 and Article 2(a) of the WIPO Performance and Phonograms Treat and the Beijing Treaty on Audiovisual Performances (respectively) read

> "'performers' are actors, singers, musicians, dancers, and other persons who act, sing, deliver, declaim, play in, interpret, or otherwise perform literary or artistic work or expressions of folklore".

These provisions appear to envisage human performers exclusively in the definition of the subject-matter protected by performers' rights, and the first holders or owners of such rights.

It is worth noting that international law sets minimum standard of protection. As such, that an interpretation be interpreted to reference human performance exclusive does not preclude signatory party to the treaties from extending performers' rights to non-human performances. As such, international text provide little assistance on this point.

Performances of copyright works

As explained elsewhere,[36] the subject-matter of performers' rights is also defined with reference to whether the performance is the interpretation of a copyright work. International

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[34] Ibid; Mathilde Pavis, 'In fashion, one day you are in, the next you are out": comparative perspectives on the exclusion of fashion models from performers' rights' (2019) 41(6) European Intellectual Property Review, 347.

[35] WIPO Performances and Phonograms Treaty (1996); Beijing Treaty on Audiovisual Performances (2012).

[36] Mathilde Pavis, Runway models are not performers. Are you sure? Look closer… (The IPKat, 13 July 2018); Mathilde Pavis, If runway models are performers…is France in breach of its international obligations? (The IPKat, 16 July 2018); For longer developments: Mathilde Pavis, 'Runway models, runway performers? Unravelling the Ashby jurisprudence under UK law' (2018) 13 *Journal of Intellectual Property Law and Practice*, 867; Mathilde

law requires that any interpretation of any copyright work be granted performers' rights. Setting aside the requirement that an 'interpretation' or 'performance' be one delivered by human, can the presence of a copyright work alone suffice to extend performers' rights protection to performers' rights to synthetic performance?

This question raises a second interrogation: does the process of performance synthetisation generate a performance (in the meaning of copyright) and a work in the meaning of copyright, *simultaneously*.

The answer to this question will depend on:

- a factual examination of the AI models of performance synthetisation to identify the nature and substance of the input and output data; and,
- the interpretation of copyright in relation to AI-made works to determine whether copyright subsists in work made by AI systems.

Conclusion

This submission stresses the critical importance of reviewing and augmenting performers' rights in light of the recent application of AI systems to performance synthetisation. The submission demonstrated that **the Act does not protect performers and relevant stakeholders against the unauthorized *reproduction* of performances such as those produced by AI-made performance synthetisation.**

This gap in protection must be closed to protect the economic and moral interests of performers and other stakeholders. Closing this gap in the protection of performers, and their performances, is essential to support this sector of our creative economy.

To this end, this submission put forward **a case for the reform of performers' rights**. It recommends that the Act be amended **to introduce a right to control the reproduction of a performance**. This right is to be distinct from the right to control the fixation of a performance in a recording, from the right to control the reproduction of such recording, and from the rights to control the commercial exploitation of such recordings.

Augmented performers' rights ensure that **UK performers and this sector of the UK creative economy stay competitive in facing the challenges brough by AI systems to their industry**. Reforming performers' rights is the opportunity to place the UK as a global leader in the protection of performers via performers' rights.

In order to **balance performers' augmented rights with that of re-users**, the UK IPO should extend the application of existing **exceptions and limitations** to protection to reformed performers' rights. The UK IPO should undertake further investigation to assess whether new exceptions and limitations might be required.

More clarity is also needed on the subsistence of performers' rights (or other intellectual property rights), and the notion of performership, in relation to digital performances in which no human performer is directly involved, such as those generated via AI-made synthetisation.

Pavis, 'In fashion, one day you are in, the next you are out": comparative perspectives on the exclusion of fashion models from performers' rights' (2019) 41(6) European Intellectual Property Review, 347.