

12 March 2024

Dear Sir or Madam,

I am writing on behalf of the Association of Photographers (AOP), representing over 3,000 members, to express our deep concern about the speed and voracity of generative-AI in relation to the UK's image-making industry.

We were closely involved in the UK IPO's Code of Practice discussions as creator representatives, and were naturally disappointed to learn that the CoP had been dropped on the basis that no common ground could be found between Creative Industries representatives and Tech Companies, particularly on transparency. As representatives of photographers and image-makers, who are themselves innovators relying on copyright to earn a living, we believe it is imperative that a fair, ethical, transparent and permission-based approach to the use of copyright-protected works online is urgently addressed in the UK.

Transparency is a crucial element for creators to know which of their works have been scraped, ingested and exploited by AI-developers in order to be able to seek redress in the form of compensation, opting for their works to be used or refusing.

Our concerns focus on the fact that whilst discussions have taken place, the technology companies behind generative-AI have not slowed down and are in fact advancing on new versions of initial programs they launched into the marketplace, *setting up a full on assault on visual artists, such as photographers*. Additionally, we are acutely aware of the increasing impact generative-AI is having on the take up of creative educational courses, professional commissions and image licensing.

There are several key areas of concern for visual artists, that include photographers and other image-makers which we strongly believe need to be addressed urgently:

LARGE SCALE IMAGE SCRAPING

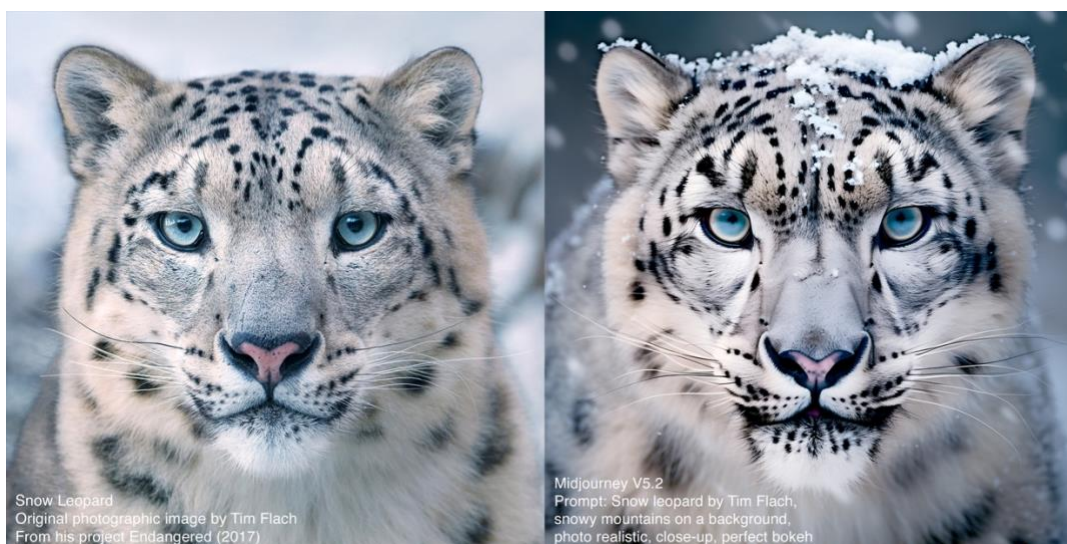
Despite hosting 'do not scrap' terms & conditions on creators' websites, tech companies continue to regularly scrap copyright-protected works (which contain metadata) using the robot.txt protocol¹. This protocol has existed for over 30 years as a type of 'gentlemen's agreement' in that there is no technical basis on which a web crawler or bot may be prevented from accessing website data. Blocking access to web-crawlers is difficult to implement on an individual bot-by-bot basis, and blocking all bots simply impacts standard search engine optimisation (SEO), which is detrimental to those looking to promote themselves and their work online. *With AI-developers and data-miners seeking out an increasing amount of data, the trust in the use of this protocol is disintegrating. It is imperative that the tech industry agrees to transparency & respect for copyright-protected works along with data privacy.*

¹ US Senate Judiciary Committee Hearing on AI and Copyright [comments on Robot.txt 45:34-39: and 59:20-54] "We use robot.txt...digital standard which says I want my website to be used for ancillary purposes such as search engine indexing," https://www.judiciary.senate.gov/artificial-intelligence-and-intellectual-property_part-ii-copyright

- We endorse the introduction of regulatory powers to hold the tech industry to account over their commercial practice, which the ICO could leverage here. Lord Holmes of Richmond's AI bill outlines proposed legislation we fully support².

'IN THE STYLE OF'

Resulting from the first US-filed copyright case on text-to-image generative-AI by three visual artists, we have seen evidence that shows over 16,000 prominent fine artists³, which includes a significant number of photographers and several of our members, such as AOP President Tim Flach⁴, Julia Fullerton-Batten, Simon Norfolk, and Rankin, whose style has been appropriated by Midjourney's program to enable users to mimic the style of these artists (Snow Leopard visual example by Tim Flach below, which demonstrates not only how his style has been copied, but also the spots of the animal's brow are identical which would be considered copyright infringement). Users also openly advocate prompting artist's styles and how many to collect to resemble the style of an artist⁵.



The image on the right was generated using only the prompt 'Snow Leopard by Tim Flach' in Version 5. Midjourney Version 6 now exists.

These artist's styles have taken the best part of a decade to perfect, only to see the ease with which any program user can steal their style in a tiny fraction of the time. *It is stealing the very souls of artists who have strived to perfect their commercial craft.* Additionally, a recent development sees Midjourney Version 6 introduce a new feature to allow users to copy the style of less well known artists called 'consistent styles' or 'style references'⁶. A user can

² Lord Holmes of Richmond AI Bill <https://bills.parliament.uk/publications/53068/documents/4030>

³ 16,000 artists names used to train Midjourney <https://www.theartnewspaper.com/2024/01/04/leaked-names-of-16000-artists-used-to-train-midjourney-ai>

⁴ Tim Flach world renowned photographer <https://timflach.com/work/endangered/>

⁵ Examples: Midlibrary <https://midlibrary.io/styles?category=Photographers&name=tim+flach>, and Artvy <https://www.artvy.ai/ai-art-style/tim-flach>; "If we want to make a style that resembles that of a particular artist, we must first collect 20-30 images of their work" <https://www.shruggingface.com/blog/blending-artist-styles-together-with-stable-diffusion-and-lora>

⁶ Midjourney's Style References feature <https://www.midjourney-v6.com/midjourney-style-references/>

merely upload a group of similar looking styles of an artist, and within an hour the program will generate hundreds of mimicked references that a user can commercially exploit, whilst making them complicit in 'data-laundering' without the artist's consent.

- We would like to see new 'image rights' legislation introduced that would protect not only performers (advocated by Equity) but also artist's, such as photographers, personality or style.

OPT-OUTS

With DALL-E, Midjourney, Stable Diffusion, and similar programs already on Versions 3 to 6, and the machine-learning process already completed at the initial stage, there are no proven mechanisms to properly 'opt-out' and remove data (personal data or copyright-protected works) that has already been ingested and used to train these models. *There are 160 million creator opt-out requests alone for Stable Diffusion⁷ which are waiting to be processed.* Older models retain the data, and AI-developers have not yet been able to remove any data from text-to-image programs in service, as it's not technically possible once a machine has been trained. This confirms our concern that once generative-AI programs have been trained, they cannot (yet) unlearn^{8&9}. Machine unlearning applied to different data models is still an area of continued research.

- We would support further detailed research and assessment on whether future developments of Generative-AI models can specifically unlearn and what types of models these might be, also how effective opt-out processes are carried out and requests for works removed. In addition, support provisions for licensing, opt-in mechanisms, and *only* opt-outs *prior to machine-learning* and program release.

MARKETPLACE TRANSFER OF VALUE As DCMS figures report, the Creative Industries alone contributes a trade surplus of £18.7bn in 2021, with total creative industries service exports worth £45.6bn and imports worth £26.9bn, as the economy recovers post-Covid.

Our members are professional photographers working in high-end commercial photography, such as advertising, brand, fashion, editorial and corporate photography, as well as fine art. Based on a survey conducted in 2022, we can ascertain the average turnover for approximately 30,000 photographers¹⁰ equates to £2.44 billion (avg. £81,500 per photographer, per annum). As an industry sector, we are already witnessing rapid expansion in competing AI-generated image production, with commercial businesses using outputs from image-based programs that have, and continue to, ingest billions of copyright-protected photographs without permission from rightsholders. On this basis, *we estimate that large text-to-image generative-AI programs (such as Stable Diffusion, Midjourney, DALL-E, etc) will increasingly compete directly with, and displace, photographers and image-makers'*

⁷ <https://arstechnica.com/tech-policy/2023/11/artists-may-poison-ai-models-before-copyright-office-can-issue-guidance/>

⁸ Extracting Training Data from Diffusion Models, 30 Jan 2023 <https://arxiv.org/abs/2301.13188>

⁹ Now That Machines Can Learn, Can They Unlearn? <https://www.wired.com/story/machines-can-learn-can-they-unlearn/>

¹⁰ ONS Statistics 2022 showed the no. of photographers, audio-visual & broadcasting equipment operators is 73,300, therefore approx. 30,000 professional photographers is a fair assumption.

<https://www.statista.com/statistics/319286/number-of-photographers-audio-visual-and-broadcasting-equipment-operators-in-the-uk/>

commercial businesses within the next five years, and consequently their professional livelihoods would be at significant risk. Furthermore, it is evident that rather than an increase in economic growth for the Creative Industries over the next few years, *we will simply see a transfer of value away from individual creators (freelancers, sole traders and small businesses) to large overseas tech corporations, as their skills are supplanted.* Our members (approx. 60%) are rightly concerned about the commercial impact of Generative-AI.

- Whilst the recent Budget announcement provides some of the UK's Creative Sector with financial support to grow their businesses, it does not support visual artists, such as photographers, therefore we would request creative freelance tax breaks. In addition, we believe that *the Government must clearly state that these tech companies are wholesale stealing our members creative works and must pay compensation for the mass ingestion and commercial exploitation they indulge in at our member's expense.* We advocate an ethical permissions-based, opt-in and compensated approach using smart contracts to any proposed solution.

ENVIRONMENTAL IMPACT

New research undertaken in December 2023, shows that *image-to-text generative-AI uses as much power to generate one single image as it does to charge up your mobile phone*, according to a new study by researchers at the AI start-up Hugging Face and Carnegie Mellon University. With over an *estimated 15 Billion images already output in less than a year* (August 2023), Generative-AI has already *“created as many images as photographers haven taken in 150 years”*¹¹. we expect this figure to rise significantly as more users are encouraged to adopt these large text-to-image diffusion models ¹².

FINAL REMARKS

It is wholly inaccurate that most generative AI training is only possible using the volume of data obtained through large-scale scraping and there is evidence that generative AI could be developed with smaller, proprietary databases. For the image sector, we are already witnessing many smaller AI-developed text-to-image models made commercially available legitimately – namely, BRIA¹³ and Vaisual¹⁴, for example, which are two companies having sought consent from contributors to the training datasets prior to training their AI models. We also expect to see growth in smaller, curated and more accurate datasets using permission-based licensable images, as users (commercial and non-commercial) and consumers seek trusted sources that do not contain (and therefore do not replicate) information bias, deep fakes, copyright infringements and/or fraudulent behaviours.

The enhancing and collaborative potential that we envisage, such as using ethical permission-based opt-in models with tech solutions, like smart contracts, stands in stark contrast to the zero-sum predictions we estimate AI will do to our sector and the wider

¹¹ AI Image Statistics <https://journal.everyapixel.com/ai-image-statistics>

¹² <https://www.technologyreview.com/2023/12/01/1084189/making-an-image-with-generative-ai-uses-as-much-energy-as-charging-your-phone/> and Power Hungry Processing: Watts Driving the Cost of AI Deployment <https://arxiv.org/pdf/2311.16863.pdf>

¹³ Bria.ai (Fairly Trained approved) <https://bria.ai/>

¹⁴ Viasual.ai <https://viasual.com/>

Creative Industries. Instead, we believe that greater productivity would be achieved if we have both the Creative Industries working together with technology developers to future proof our net worth and double up on our Creative Industry net exports. *We need to recognise and augment human creative endeavour above machine endeavour to ensure the current and next generation of human creators are able to contribute to the UK's economic growth.*

We welcome your support in helping us achieve a fair and balanced approach to dealing with generative-AI program development, that does not supplant but supports human creative endeavour.

Yours sincerely,

Isabelle Doran
CEO, The Association of Photographers
Board Director for Artistic Works, British Copyright Council
Fellow of the RSA
isabelle@the-aop.org

About the AOP

The Association of Photographers (AOP) exists to protect, promote and inspire, championing the rights of all photographers and campaigning tirelessly on issues of copyright, best practice, and professionalism. Our 3,000 members include professional photographers, photographic assistants, photography agents, affiliated businesses, students, accredited photography courses at FE and HE level, and those working in support services for the Creative Industries. We are part of a greater network under the umbrella of the British Photographic Council which collectively represents around 15,000 creative professional image-makers in the UK.

The AOP membership has always been formed of some of the most influential, trailblazing photographers in the history of the art form. Past and present members include the likes of Terence Donovan, Rankin, Tim Flach, Nadav Kander, Tessa Traeger, David Bailey, Julia Fullerton-Batten and Jillian Edelstein. For over 50 years, members' work has appeared in global advertising campaigns, books, newspapers, magazines, exhibitions and cultural events the world over.

Today, whilst our members explore and contribute to the development of the new realms of image technology at their disposal - the Association continues its mission to promote and protect the rights of individuals, which includes working closely with a range of All-Party Parliamentary Groups and creative industry representative organisations, such as the British Copyright Council (BCC) and Creators Rights Alliance (CRA), and importantly provides support to the next generations of photographers and image-makers through our close relationship with a growing number of universities and colleges.